



**Big Cypress National Preserve
National Park Service
U.S. Department of the Interior**

**FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCT FIRE STATION AT
BIG CYPRESS NATIONAL PRESERVE HEADQUARTERS COMPLEX
OCHOPEE, FLORIDA**

Recommended:

Thomas Forsyth, Superintendent
Big Cypress National Preserve

Date

Approved:

Mark A. Foust, Regional Director
Interior Region 2, National Park Service

Date

Introduction

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts related to the proposed construction of a new consolidated Fire Operations Center (FOC), and associated facilities, at the Big Cypress National Preserve (BICY) Headquarters Complex in Ochopee, Florida. Prescribed fires are conducted annually at the BICY by the BICY Fire and Aviation Program. The program's objective is to reduce the number and intensity of wildfires in southern Florida and to enhance the quality and health of the fire-dependent ecosystems within the over 720,000-acres of natural wetlands of BICY. The proposed action is intended to provide a modern, safe, and adequate FOC in a centralized location to support the preserve's expanding Fire and Aviation Program.

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. The NPS has determined that the proposed action, as described in the EA, will not impair the floodplain at BICY (see the Non-Impairment Determination in Appendix A). Where necessary, relevant sections of the EA are incorporated by reference below.

Selected Alternative

Based on the impact analysis presented in Chapter 3 of the EA, the NPS selected the proposed action (preferred alternative) to construct a new FOC at the BICY Headquarters Complex. This project entails constructing an approximately 5,000-square foot FOC building, an approximately 4,000-square foot Emergency Operations Center building, and associated facilities and driveways on approximately 16 acres of land adjacent to the BICY Headquarters Complex off US Highway 41 (Tamiami Trail) in Ochopee, Florida. Construction of the FOC would occur in the immediate future while the additional structures are planned for future construction. This proposed action is expected to meet the objectives of providing a modern, safe, and adequate facility in a centralized location that supports the preserve's expanding Fire and Aviation Program.

Rationale for Decision

The proposed action was selected because it meets the project purpose and need and it best meets the following selection standards:

1. The alternative would provide adequate working space for BICY Fire and Aviation Program personnel to allow them to fulfill their missions at a high level. Working space would allow for future expansion of workforce as needed and would meet current accessibility standards.
2. The alternative would provide for a centralized operations area, within the boundaries of BICY, to improve efficiency and response time and to reduce travel time between program components.
3. The alternative would maximize energy efficiency, and provide lower maintenance costs, to the extent practicable.
4. The alternative would provide a facility that is built to withstand hurricanes and flooding such as storm surge. The facility would remain intact and would be able to quickly return to full functionality following a storm.
5. The alternative would avoid wetland impacts to the greatest extent practicable.
6. The alternative would avoid impacts to protected flora and fauna to the greatest extent practicable.

7. The alternative would include efficient access to the FOC such that construction, operation, and maintenance of facilities and equipment can proceed effectively. Such access would be via existing paved roads.

Mitigation Measures

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse impacts to resources, whether under the jurisdiction of the NPS or because of an NPS decision. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following mitigation measures will allow the NPS to meet its conservation mandates as required by the Organic Act (16 USC 1 et seq.) and as further detailed in NPS Management Policies, the National Historical Preservation Act, and the Endangered Species Act (16 USC 1531 et seq.). The NPS would also implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results.

The following measures will be conducted to help mitigate any effects on the floodplain at BICY (EA, pgs. 10 and 18):

- Project design will have a final finished elevation for the FOC building of 8 feet above NAVD88;
- Soil disturbance will be minimized during construction of the FOC and associated structures;
- The soil surface will be returned to natural (pre-construction) grade following construction; and
- A stormwater management facility will be constructed to discharge stormwater runoff to pre-development rates to mimic existing conditions.

In addition, best management practices (BMPs) are proposed to further mitigate possible effects on the floodplain during construction (EA, pgs. 10 and 18). Silt fencing may be used, if needed, to reduce the change of turbidity and sedimentation impacts to surface waters. Hay bales may be used where trenching for silt fencing would damage tree roots. Hay bales would help prevent excessive turbidity from flowing downstream along Halfway Creek.

All measures would remain in place and in good working order until soils have stabilized sufficiently, after which all control measures will be removed.

Any spills of Jet-A fuel, or other hazardous materials, would be immediately reported and cleaned up in accordance with the Spill Prevention Control and Countermeasures Plan and all applicable regulations.

Other Alternatives Considered

In addition to the proposed action, a no-action alternative and additional alternatives were considered.

No Action Alternative and Additional Alternatives Considered

The no-action alternative was considered but was ultimately rejected because it would not support the expanding Fire and Aviation Program at BICY and does not address the purpose and need of this project to provide a modern, safe, and adequate fire operations facility. Additional alternatives were considered by the NPS during the development and consideration of the proposed action but were dismissed because they did not meet the purpose and need for the project (EA, pgs. 13–14). These alternatives are identified and briefly discussed in the NPS (2022) charrette report titled *Fire Operations Center at Big Cypress National Preserve Headquarters Complex*.

Public Involvement & Agency Consultation

The EA and Floodplain Statement of Findings (Appendix E) underwent formal public and agency review for 30 days, April 17 through May 17, 2023. The availability of these documents was announced via a newsletter. The documents were distributed to interested individuals, agencies, and organizations and were also made available online at the NPS Planning, Environment & Public Comment website (<https://parkplanning.nps.gov/FOC>). Two comments were received regarding the EA and are addressed in Appendix B of this document. The public comments did not result in the need for substantial modifications to the proposed alternative or changes to the EA.

A Coastal Zone Management Act consistency determination was sent to the Florida State Clearinghouse on April 10, 2023, indicating that the implementation of the proposed action would be consistent with the Florida Coastal Management Program. Concurrence from the Florida State Clearinghouse was received on May 25, 2023. Correspondence regarding this consultation is in Appendix C.

The NPS conducted a review of federally threatened and endangered species, and Critical Habitat, potentially occurring within the project area to determine if there are potential impacts to such species as a result of the proposed action. Based on analysis of the proposed action, and in compliance with Section 7(a)(2) of the Endangered Species Act (ESA), the NPS has determined there will be No Effect to federally-listed species for this project.

The NPS initiated a 30-day consultation response period with the Florida State Historic Preservation Office (SHPO) on March 31, 2023, to confirm that the proposed action would not adversely affect historic properties (Appendix D). The review was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and 36 CFR Part 800: Protection of Historic Properties. In a letter dated June 2, 2023, the SHPO concurred with the NPS that the proposed project will have no adverse effect on historic properties listed, or eligible for listing, in the National Register of Historic Places, or have any other historical, archaeological, or architectural value within the surveyed Area of Potential Effects.

Government to Government Consultations

Federally recognized tribes that are historically affiliated with the BICY Headquarters Complex geographic region were contacted and invited to consult on all proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. The NPS consulted with the following Native American tribal governments regarding the proposed action:

- Miccosukee Tribe of Indians of Florida
- Seminole Nation of Oklahoma
- Seminole Tribe of Florida

Informal discussions and updates about this project with the above-mentioned tribes have been on-going. The NPS initiated formal consultations with the three tribes listed above on March 29, 2023. The Tribal Historic Preservation Office of the Seminole Tribe of Florida responded on April 4, 2023, with no concerns or comments for the project and requested to be informed of any inadvertent discoveries, should such an instance occur. In addition, representatives for the Miccosukee Tribe of Indians of Florida indicated no

concerns related to the project in a meeting held on April 12, 2023. The NPS did not receive a response from the Seminole Nation of Oklahoma within the allotted 30-day consultation period.

Finding of No Significant Impact

As described on pages 18–20 of the EA, the proposed action has the potential for adverse impacts on floodplains. Land areas of BICY are generally less than 5 feet above sea level and are within the 100-year floodplain. The project area represents some of the highest elevations within BICY (at 6 to 7 feet above NAVD88). Therefore, the FOC and associated structures must necessarily be built in the BICY floodplain to meet the project purpose and need for a modern, safe, and adequate FOC in a centralized location (as described further on pgs. 1–2 of the EA). However, no potential for significant adverse impacts was identified (see the Floodplain Statement of Findings, in Appendix E, for more information).

Implementation of the proposed action would include impermeable surfaces consisting of paved entranceway, two paved parking lots, a concrete pad for the FOC, and a continuous concrete apron linking the hangar with the two smaller helipads. The proposed construction of the FOC building and associated structures and entranceway would be conducted in a way that minimizes disturbance to the soil surface. The soil surface would be graded to match that of the surrounding (undisturbed) soils and overland flow of flood waters would not be impeded or otherwise altered from natural flow patterns. The proposed action includes a stormwater management facility to discharge stormwater runoff at pre-development rates to mimic the existing conditions (EA, pg. 18).

Any erosion or sedimentation that might occur during construction would be temporary. If needed, turbidity curtains and hay bales would be used to contain the disturbance within the construction zone (EA, pg. 18).

The use of BMPs (e.g., silt fencing, hay bales, turbidity curtains), where needed, will help ensure that all impacts are minimized. Erosion or sedimentation resulting from construction activities may increase water turbidity by causing sediment particles to be introduced into the surrounding water column near the construction site. Such particles may be resuspended during tidal flux or by wind action against the water's surface. BMPs may be used during construction as erosion and sedimentation control structures as per standards by Florida Department of Environmental Protection (2008) *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual*.

All sediment-control measures would remain in place and in good working order until soils have stabilized sufficiently, after which all control measures will be removed (EA, pg. 18).

Any spills of Jet-A fuel, or other hazardous materials, would be immediately reported and cleaned up in accordance with the Spill Prevention Control and Countermeasures Plan and all applicable regulations (EA, pg. 18; and EA Appendix D).

Climate change is addressed in the project design, which calls for the addition of fill prior to building construction, and final finished elevation of 8 feet above NAVD88. The FOC will include energy efficient utilities to minimize the project's carbon footprint. The centralization of the fire operations structures is expected to reduce fuel consumption of fire-related vehicles compared to the current distribution of fire-related buildings, thus reducing the carbon footprint for fire equipment (EA, pg. 18).

For the reasons outlined above, including the construction of a stormwater management facility, no significant or long-term impacts are expected to the 100-year floodplain. Although short-term impacts are expected during construction, in the form of minor possible erosion and (or) sedimentation, they will be minimized using the above-mentioned BMPs. Only minimal and temporary impacts are expected for the proposed action (EA, pg. 19). See the Floodplain Statement of Findings (Appendix E) for more information.

FEMA Flood Zone AE (100-year floodplain) covers the entire 16-acre project area. The entirety of the over 720,000-acre BICY occurs within Flood Zone AE. For this reason, the FOC and associated facilities must necessarily be built within this flood zone if they are to be in a centralized location to support the preserve's expanding Fire and Aviation Program (EA, pg. 19).

The EA considered all potential impacts of the proposed action as a solitary action as well as in conjunction with other proposed activities. It is impossible to meet the purpose of, and need for, the action and avoid the 100 year floodplain. Therefore, there is no practical alternative to completing the proposed action in the floodplain (EA, pg. 19).

Conclusion

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement. The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this project and, thus, will not be prepared.

The following appendices are included:

- Non-Impairment Determination (Appendix A);
- Public comments and NPS responses (Appendix B);
- Florida Coastal Management Program Consistency Statement (Appendix C);
- Florida State Historic Preservation Office Consultation (Appendix D); and
- Floodplain Statement of Findings (Appendix E).

Appendix A: Non-Impairment Determination

Non-Impairment Determination

Introduction

By enacting the National Park Service (NPS) Organic Act of 1916 (Organic Act), Congress directed the US Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wild life therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (54 U.S. Code 100101). Before approving a proposed action that could lead to an impairment of park resources and values, a NPS decision maker must consider the impacts of the proposed action and determine, in writing, that the activity will not lead to an impairment of park resources and values.

Subsections 1.4.5 and 1.4.6 of NPS (2006) *Management Policies* provide an explanation of impairment. Subsection 1.4.5 defines impairment as, “an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.” Subsection 1.4.5 goes on to state that “an impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified in the park’s General Management Plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.”

Non-Impairment Determination for the Proposed Action

Based on the identification and evaluation of impacts in the NPS (2023) *Construct Fire Station, Big Cypress National Preserve Headquarters Complex, Environmental Assessment*, floodplains were evaluated for impairment.

Subsection 1.4.6 of NPS (2006) *Management Policies* identifies several park resources and values that are subject to evaluation in a non-impairment determination. Consistent with the September 2011 NPS Guidance for Non-Impairment Determinations and the NPS NEPA Process, non-impairment determinations do not include discussion of impacts on visitor experience, socioeconomics, public health and safety, environmental justice, land use, park operations, etc. as these do not constitute impacts on park resources and values identified through the NPS Organic Act or General Authorities Act that are subject to the non-impairment standard.

Floodplains

As described in the 2023 EA, the proposed action will involve construction of the FOC and other fire-related structures on a 16-acre project area that has been previously altered and has had fill material

added in the 1960s. Some impermeable surfaces will be added as part of the proposed action. The FOC building, and associated structures and entranceway, would be constructed in a way that minimizes soil disturbance. The soil surface would be returned to natural grade following construction. Overland flow of flood waters would not be impeded or otherwise altered from pre-development flow patterns. The project will include a stormwater management facility to discharge stormwater runoff at pre-development rates to mimic existing conditions. Soil disturbance would be only temporary and the use of best management practices such as silt fencing, hay bales, and turbidity curtains would help to contain the disturbance within the construction zone. Any spills of Jet-A fuel, or other hazardous materials, would be immediately reported and cleaned up in accordance with the Spill Prevention Control and Countermeasures Plan and all applicable regulations.

Sea level rise and increased storm activity, resulting from climate change, is addressed in the project design, including having the final finished elevation of the FOC building of 8 feet above NAVD88.

Given that the impermeable surfaces are minimal as proposed, and because the soil surface would be returned to natural grade and a stormwater management facility is included in the proposed action, no impacts to the floodplain are expected for the proposed action. The only impacts to the floodplain expected are limited to the duration of construction and no long-term impacts are expected.

Summary

Overall, for the reasons summarized above and discussed in the EA, and because the proposed action will occur on an altered site with added fill, the NPS has determined that the implementation of the proposed action will not constitute an impairment of the floodplain at BICY.

Appendix B:
Public Comments and NPS Responses

Public Comments and Responses

The 30-day public comment period for the EA occurred from April 17 through May 17, 2023. A total of two comments were received regarding the EA for the proposed action (preferred alternative) during the comment period. Both comments were received via email and included general support for the proposed action. Commenter #1 was an unaffiliated individual from Eagle Point, Oregon. Commenter #2 was an unaffiliated individual from Hendersonville, North Carolina. These public comments, and the NPS responses, are summarized below.

Commenter #1: This commenter acknowledged the need for a new, centralized FOC and associated facilities at BICY. However, the commenter expressed concern that the following factors may not have been fully considered in the EA:

- A plan for decommissioning the current fire-related structures, and fuel-storage facilities, to minimize the potential for negative impacts to the environment.
- The EA, and the current Spill Prevention Control and Countermeasure Plan, do not adequately address the potential environmental impacts of consolidating the fuel storage into one location and the impacts that may result from a spill.
- The potential impacts of spills of any additional fluids such as oil or hydraulic fluid and their potential to reach nearby waterways and wetland habitats.

NPS response to commenter #1: The existing facilities will require demolition or extensive renovation at a future date regardless of which alternative action is chosen. For this reason, the decommissioning of the existing fire-related facilities is not included in the EA. A 7,500-gallon storage tank for Jet-A fuel is currently located at the Oasis Ranger Station Airfield and will be moved to the project area adjacent to the BICY Headquarters Complex following construction of the FOC. Additional storage of fluids such as oil or hydraulic fluid is not needed as these fluids are already stored at the Headquarters Complex and are covered under an existing Spill Prevention Control and Countermeasure Plan. No corrections or revisions to the EA are necessary.

Commenter #2: This commenter expressed general support for an updated FOC to address the increase in wildfires in southern Florida and recognized the need to make the new facility capable of withstanding a major storm. The commenter went on to acknowledge that using the previously disturbed project area would somewhat minimize possible environmental impacts. This commenter indicated that it is essential to include firefighters, and other first responders, in the project planning to ensure that the facility would function optimally, and to ensure that the working environment would benefit fire-fighting operations.

NPS response to commenter #2: Comment acknowledged; firefighters of the BICY Fire and Aviation Program have actively participated in the planning and design of the proposed action since its inception. This ensures that the FOC, and other facilities, will function efficiently and that the working environment will be optimal. No corrections or revisions to the EA are necessary.

Appendix C:
Florida Coastal Management Program Consistency Statement

Jason Seitz

From: Jason Seitz
Sent: Monday, April 10, 2023 9:53 AM
To: State_Clearinghouse
Cc: 'Chris.Stahl@dep.state.fl.us'; Jason Seitz
Subject: FCMP Consistency Determination Requested for Construction of a Fire Operations Center at Big Cypress National Preserve
Attachments: Construct Fire Station at Big Cypress HQ EA Pre-Final 040723.pdf; Floodplain SOF BICY FOC FINAL 032223.pdf
Signed By: JSeitz@anamarinc.com

Good morning Florida Clearinghouse,

ANAMAR Environmental Consulting, Inc., is assisting the National Park Service in the NEPA documentation process for construction a new consolidated Fire Operations Center (FOC), and associated facilities, at the Big Cypress National Preserve (BICY) Headquarters Complex in Ochopee, Florida.

The proposed action entails locating an approximately 5,000-square foot FOC building, an approximately 4,000-square foot Emergency Operations Center building, and associated facilities and driveways on approximately 16 acres of land adjacent to the BICY Headquarters Complex off US Highway 41 (Tamiami Trail) in Ochopee, Florida. The land is composed of fill material that was placed there in the 1960s in preparation for a speculative housing development. The FOC will have a final finished elevation of 8 feet above NAVD88 (North American Vertical Datum of 1988) to address floodplain considerations. No impacts to wetlands are proposed or expected.

Consultations with the State Historic Preservation Office and applicable Native American tribes are being conducted now.

The National Park Service requests your input on the attached Environmental Assessment and the Floodplain Statement of Findings.

Please find the following attachments to this email:

1. A copy of the (pre-final) EA
2. A copy of the (final) Floodplain Statement of Findings

Let me know what additional information may be needed.

Thank you for your help,

Jason Seitz

Jason C. Seitz, MS
Senior Project Manager | Senior Biologist
ANAMAR Environmental Consulting, Inc. | www.anamarinc.com
2106 NW 67th Place, Suite 5, Gainesville, FL 32653-1658

Cell 352.281.4685 | Gainesville, FL 352.377.5770 x 116 | Portland, OR 502.558.3130

Jason Seitz

From: Stahl, Chris <Chris.Stahl@FloridaDEP.gov>
Sent: Thursday, May 25, 2023 1:23 PM
To: Jason Seitz
Cc: State_Clearinghouse
Subject: State Clearance Letter for FL202304129767C -Environmental Assessment of Construct Fire Station at Big Cypress National Preserve Headquarters Complex, Collier County, Florida.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

May 25, 2023

Jason C. Seitz
Anamar Environmental Consulting, Inc.
2106 NW 67th Place, Suite 5
Gainesville, Florida 32653

RE: Department of the Interior, National Park Service, Big Cypress National Preserve, Environmental Assessment of Construct Fire Station at Big Cypress National Preserve Headquarters Complex, Collier County, Florida.
SAI # FL202304129767C

Dear Jason:

Florida State Clearinghouse staff has reviewed the proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

The referenced document has been reviewed by the South District of DEP and following comments provided:

1. The 7,500 gallons AST will fall under Ch. 62-762 regs. And will need to be registered with DEP.
2. In the SPCC (federal requirement) Pg. 122 – Monthly Inspection Checklist “Fuel Delivery” - *Method to stop flow of liquid at 98% of tank capacity.* **FAC 62-762.501(2)(3) Overfill protection - requires that tanks not be filled beyond 95 percent capacity & when equipped with a liquid flow cutoff controller, that it be set at 95%.**

Due to the sensitive environmental preserve location, the project will require an Environmental Resource Permit from the South Florida Water Management District (SFWMD) in accordance with Rule 62-330.054, Florida Administrative Code (FAC). Please contact the SFWMD Fort Myers Service Center at (239) 338-2929 or email erpreapp@sfwmd.gov to schedule a pre-application meeting with staff.

If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities

shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

Based on the information submitted and minimal project impacts, the state has no objections to allocation of federal funds for the subject project and, therefore, the funding award is consistent with the Florida Coastal Management Program (FCMP). The state's final concurrence of the project's consistency with the FCMP will be determined during any environmental permitting processes, in accordance with Section 373.428, Florida Statutes, if applicable.

Thank you for the opportunity to review the proposed plan. If you have any questions or need further assistance, please don't hesitate to contact me.

Sincerely,

Chris Stahl

Chris Stahl, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
ph. (850) 717-9076
Chris.Stahl@floridadep.gov

Appendix D:
Florida State Historic Preservation Office Consultation



FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

CORD BYRD
Secretary of State

Victoria Menchaca
Big Cypress National Preserve
33100 Tamiami Trail E
Ochopee, FL 34141

June 2, 2023

RE: DHR Project File No.: 2023-1904

Received by DHR: March 31, 2023

Cultural Resources Report for the Big Cypress National Preserve New Fire Operations Center

Dear Victoria:

Our office reviewed the referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations in 36 CFR Part 800: Protection of Historic Properties, and Chapters 267.061, Florida Statutes, and implementing state regulations, for possible effects on historic properties listed in, or eligible for, the National Register of Historic Places (NRHP), or otherwise of historical, architectural, or archaeological value. The project was completed in fulfillment of requirements for the National Park Service (NPS).

In March 2022, NPS conducted the above referenced reconnaissance assessment in anticipation of an undertaking to construct a new Fire Operations Center. NPS performed three shovel tests within the APE and noted "past disturbances to the APE, the low archaeological potential of the APE, the placement of the project components in and on limestone fill, the results of the shovel tests during the archeological investigation, and the results of the VIA." Based on the survey results, it is the opinion of NPS that the proposed project will have no adverse effect on any known historic properties.

Based on the information provided, our office concurs with the presented survey results and finds that the proposed project will have no adverse effect on historic properties listed, or eligible for listing, in the NRHP, or otherwise of historical, archaeological, or architectural value within the surveyed APE.

If you have any questions, please contact Ethan Putman, Historic Preservationist, by email at Ethan.Putman@dos.myflorida.com.

Sincerely,

Alissa Slade Lotane
Director, Division of Historical Resources
& State Historic Preservation Officer

Appendix E:
Floodplain Statement of Findings

STATEMENT OF FINDINGS FOR FLOODPLAIN MANAGEMENT
TO CONSTRUCT A FIRE STATION AT
BIG CYPRESS NATIONAL PRESERVE HEADQUARTERS COMPLEX
BIG CYPRESS NATIONAL PRESERVE
OCHOPEE, FLORIDA



Recommended:

THOMAS FORSYTH

Digitally signed by THOMAS
FORSYTH
Date: 2023.06.20 17:45:18 -04'00'

June 20, 2023

Superintendent

Date

Certified for Technical Accuracy and Service-wide Consistency:

FORREST HARVEY

Digitally signed by FORREST HARVEY
Date: 2023.06.22 11:45:10 -06'00'

Chief, Water Resources Division

Date

Approved:

Regional Director

Date

Introduction

This Floodplain Statement of Findings (SOF) is in accordance with Executive Order 11988 (*Floodplain Management*), Executive Order 13690 (*Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*), Director's Order #77-2 (*Floodplain Management*), and NPS Procedural Manual #77-2 (*Floodplain Management*) (NPS 2002). Additionally, as a federal capital investment project, the design of the fire operation facilities will use the Freeboard Value Approach following EO 13690 Federal Flood Risk Management Standard (FFRMS). This SOF summarizes the floodplain development associated with providing a modern, safe, and adequate Fire Operations Center (FOC) in a centralized location to support Big Cypress National Preserve's (BICY's) expanding Fire and Aviation Program.

Project Area Description

The project area for the Proposed Action consists of approximately 16 acres of land along the south side of US Highway 41 (Tamiami Trail) in Ochopee, Collier County, Florida (Figure 1). It is located within Section 33, Township 52S, and Range 30E. The project area is adjacent to the existing BICY Headquarters Complex, at 33100 Tamiami Trail East, Ochopee, Florida. The project area is mostly flat and is composed of fill material that was placed there in the 1960s in preparation for a speculative housing development.

Flood maps provided by the Federal Emergency Management Agency (FEMA) show the project area to be entirely contained within Zone AE (Figure 2) as of the latest (16 May 2012) FEMA map update for this area. This zone, also known as the 100-year floodplain, is defined as an area inundated by a 1 percent annual chance of flooding and for which base flood elevations have been determined. Zone AE is within the High Risk Areas (Special Flood Hazard Area) category of flood zones. The project area has a base flood elevation of approximately 6 feet NAVD88 (North American Vertical Datum of 1988) above sea level according to FEMA (<https://www.fema.gov/flood-maps/national-flood-hazard-layer>). Existing site benchmarks were surveyed by CHW Professional Consultants and shown on project design drawings dated 5 January 2023. These drawings show benchmark elevations of from 2.35 to 3.54 feet NAVD88 in and adjacent to the project area.

The finished floor elevations (FFE) of the existing buildings within the complex range from 5.40 feet NAVD88 (accessory building north of the water treatment area) to 5.59 feet NAVD88 (BICY Headquarters building). These buildings are just above-grade.

The project area of the Proposed Action is nearly all uplands but is surrounded by wetlands associated with Halfway Creek that flows southwest to Chokoloskee Bay in the Ten Thousand Islands and eventually to the Gulf of Mexico. The aerial-interpreted wetlands shown in USFWS National Wetlands Inventory (NWI) are based on high altitude imagery (Figure 3). Wetlands adjacent to the project consist of a Freshwater Emergent Wetland, Freshwater Ponds, Estuarine and Marine Wetlands, and the roadside ditch is termed Riverine by NWI. The small triangular water body in the northern portion of the project area, part of the existing wastewater treatment facility, was not indicated to be a wetland by USFWS NWI.

Proposed Action

The principle construction component of this Proposed Action entails locating an approximately 5,000-square-foot FOC building in the project area (Figure 4). The FOC will include offices, a gym, various storage rooms for fire-related equipment and supplies, a kitchen, meeting rooms, and a conference room (Figure 5). The planned future structures of this Proposed Action consist of a 4,000-square-foot Emergency Operations Center, an engine bay/pole barn, helicopter hangar, four helipads, two concrete or asphalt parking lots, helicopter fueling area, portable storage shed units, and an aviation overflow parking area. These future structures are planned to be located as far as possible on site from the regularly occupied FOC and the public road. This provides the best acoustic separation as well as limiting visibility and restricting access for security purposes. The different facilities are categorized into different class actions as defined in NPS Director's Order #77-2 and Procedural Manual #77-2, which are described in Table 1.

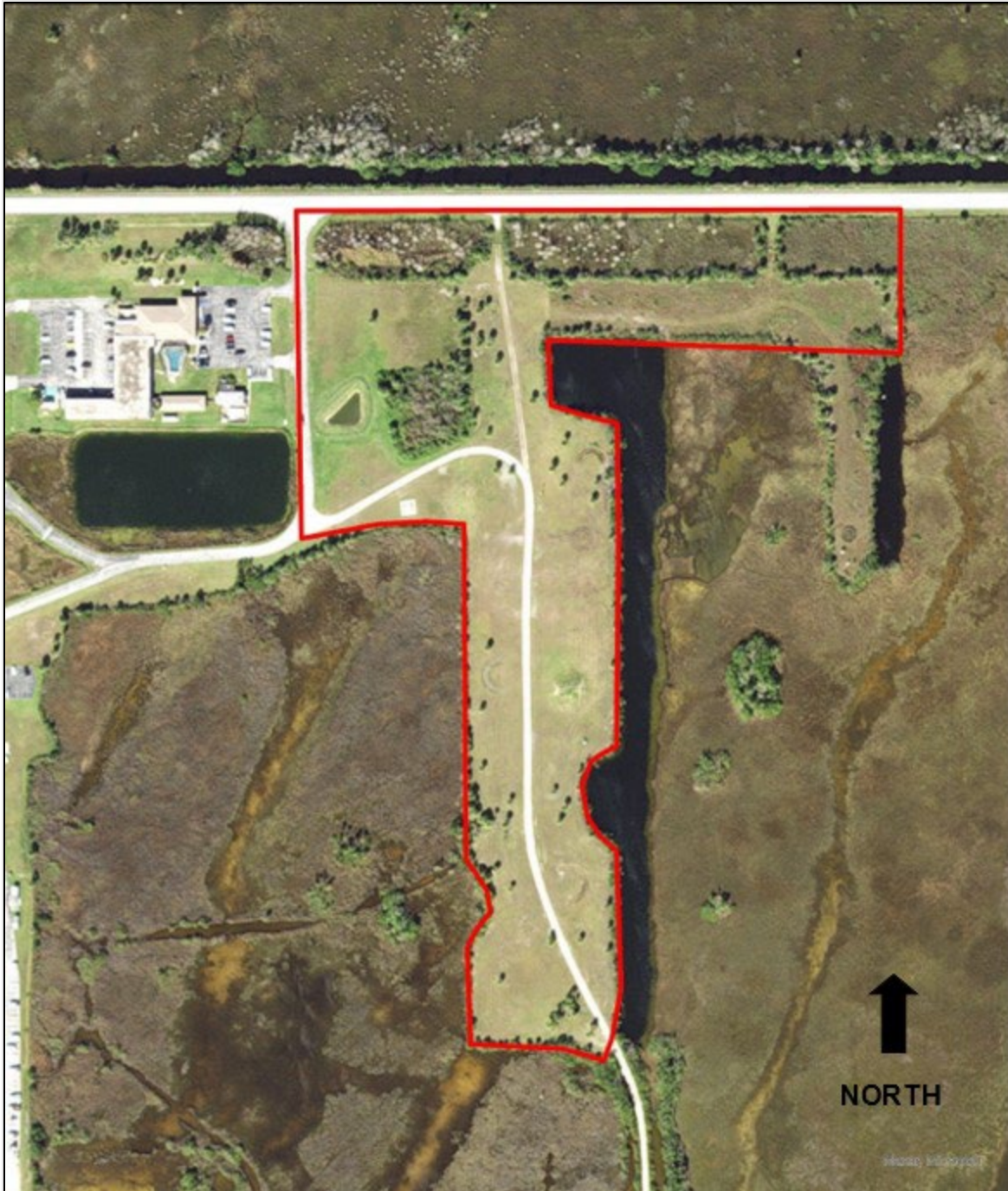


Figure 1. Aerial Showing the 16-Acre Project Area at the Big Cypress Headquarters Complex in Ochopee, Florida

Notes: Project area boundary in red. Aerial image modified from Google Maps.

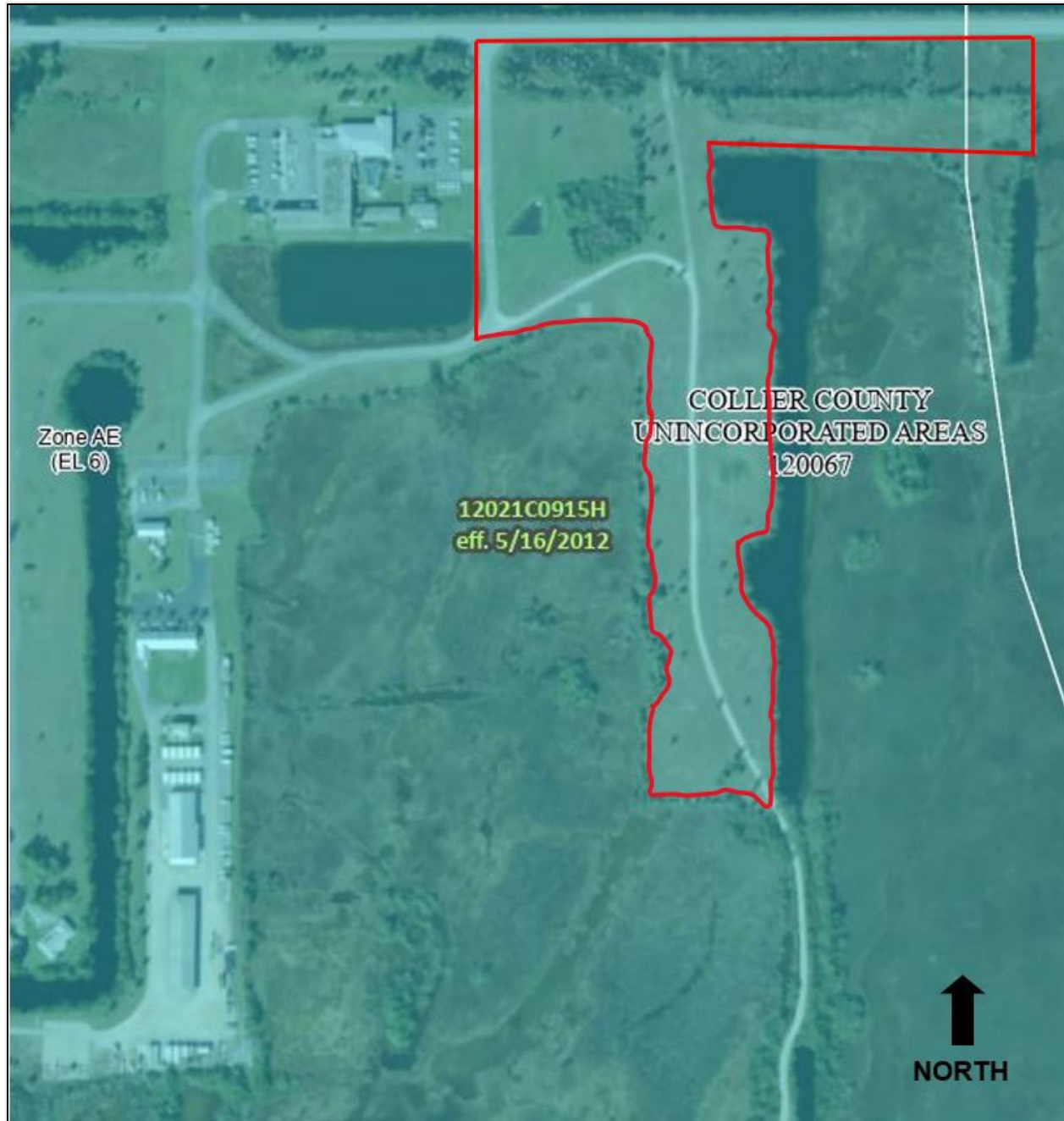


Figure 2. FEMA Zone AE (100-year Floodplain) In and Around the Project Area

Notes: The 16-acre project area is outlined with a red line. The figure is modified from the FEMA Flood Map obtained 20 Mar 2023 from FEMA Flood Map Service Center (<https://msc.fema.gov/portal/home>).



Figure 3. Wetland Habitats and Water Bodies In and Around the Project Area Based on National Wetlands Inventory Data

Notes: The 16-acre project area is outlined with a red line. Figure modified from USFWS National Wetlands Inventory Wetland Mapper online spatial database (<https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>) accessed 27 Oct 2022.



Figure 4. Plan View of Proposed Action Area for Fire Operations Center and Accessory Structures

Notes: The 16-acre project area is outlined with a red dashed line.
FOC = Fire Operations Center, EOC = Emergency Operations Center



Figure 5. Schematic of Proposed Action: Fire Operations Center Building with Internal Room Configurations

Source: Modified from design drawing A101 of the final schematic design report by Walker Architects (2023)

Justification for Use of the Floodplain

Currently, the BICY Fire and Aviation Program is spread out amongst several buildings in different locations in and around BICY, making for inefficient and delayed emergency fire response. The buildings were originally built in the 1970s and are inadequate for today's operations, including exposure of equipment to the elements, security concerns, failing utilities, and other significant deficiencies. The widely spaced arrangement of the existing facilities currently used by the Fire and Aviation Program and the inadequacies of some of the existing buildings, coupled with an increase in the annual prescribed fire at BICY (targeted at >125,000 acres/year), underscore the need for an updated and efficient FOC and associated facilities at a central location. The BICY Fire and Aviation Programs support the preserve's prescribed fire program related to the maintenance of the natural resources and habitats of BICY. Structural fire support is provided by the Greater Naples Fire Rescue within BICY.

The majority of BICY is within the 100-year floodplain and the area is relatively flat, so perspective sites within BICY are weighed evenly from a flood mitigation perspective. The 16-acre project area adjacent to the BICY Headquarters Complex was selected because of its central location, ease of access, presence of fill material, adequacy of available space, and existing utilities. The anthropogenically modified and slightly elevated soil surface of the project area allows for an ideal project area and greatly avoids potential effects to wetlands and other habitats.

No alternate sites were able to accommodate the proposed project without causing negative impacts on natural habitats and (or) wetlands.

Description of Site-Specific Flood Risk

Flooding at the project area of the Proposed Action is typically caused by tropical storms and hurricanes. BICY is composed of a mosaic of inland and coastal water bodies, along with groundwater, that collectively contribute to the greater Everglades watershed that includes BICY. This watershed originates in basins associated with Lake Okeechobee and flows slowly southward through BICY and Everglades National Park to the Ten Thousand Islands and Florida Bay. This water eventually enters the Gulf of Mexico. Storm events having sufficient duration and (or) intensity in the area have the potential to have significant effects on the hydrology and hydraulics at BICY.

Storm warnings are provided typically at least 24 hours prior to large storm events, such as tropical storms and hurricanes. Such notifications are expected to provide sufficient time for preparations and/or evacuation of the proposed facilities. The FOC, and associated facilities, are not intended for sheltering-in-place.

The proposed FOC, and associated facilities, will be constructed with strict adherence to best management practices and will have no impact on erosion, accretion, modifications to surrounding water bodies, or other geomorphic concerns.

Surveyed benchmark elevations in and around the project area range from 2.35 to 3.54 feet NAVD88 based on design drawings by CHW Professional Consultants dated 5 January 2023. Given that the base flood elevation at the project site is approximately 6 feet NAVD88, this indicates that the project area could be subject to up to 3.65 feet of flood depth during a 100-year flood.

Determination of Regulatory Flood and Applicability of FFRMS

NPS Director's Order #77-2 and Procedural Manual #77-2 consider the evaluation of actions that may be grouped into the following three categories:

- Class I Actions — include administrative, residential, warehouse and maintenance buildings, and nonexempted (overnight) parking lots.
- Class II Actions — those that will create “an added disastrous dimension to the flood event.” Class II actions include schools, clinics, emergency services, fuel storage facilities, large sewage treatment plants, and structures such as museums that store irreplaceable records and artifacts.
- Class III Actions — Class I or Class II Actions that are located in high hazard areas such as those subject to flash flooding.

The proposed project includes both Class I and Class II Actions (Table 1). The construction of the facilities will be staggered based on funding allocation in the future. The FOC is the first structure that will be built. Classifying each structure individually provides flexibility in design with unknown funding and construction timelines. In addition, each structure has a different operation associated with it and classifying them individually provides a more nuanced approach for design

and addressing the needs of BICY. Following EO 11988, the regulatory floodplain for Class I Actions is the 100-year floodplain. For Class II Actions, the Regulatory Floodplain is the 500-year floodplain.

Table 1. Class Determination for Structures

Structure	Class Determination	Operation
Fire Operations Center (FOC)	Class I	The FOC consists of offices, a kitchen, restroom facilities, conference room, and a gym. This space is administrative in nature and used for day-to-day office operations. Emergency equipment is not held within this building and would not be used for operations during a weather event. If the FOC was damaged during an event, the operations out of this facility could be relocated elsewhere in BICY.
Emergency Operations Center (EOC)	Class II	The EOC will house BICY's Law Enforcement operations. Operations include administrative use, office space, and day-to-day operations. The EOC would also be used throughout a large weather event, or major event, and would need to be operational throughout. BICY's dispatch center is located in Tallahassee and will not be located onsite.
Parking lots/driveways, aviation overflow area, sheds	Class I	<p>Parking Lots/Driveways: A new asphalt road will be constructed to tie in the FOC and other structures with the existing road near the BICY Headquarters to the west of the project area. A new entranceway will also be constructed linking these facilities with US Highway 41 to the north. Left and right turn lanes will be installed along US Highway 41 adjacent to the entranceway to allow safe vehicle and equipment access to the project area.</p> <p>Aviation Overflow Area: The aviation overflow area will allow for the temporary storage of four to five helicopters as space is needed. During an event, the helicopters would be moved to another location (usually to northern Florida) outside of an approaching storm.</p>

		Sheds: The sheds are temporary and removable structures that will house non-emergency-related equipment.
Pole Barn and Engine Bay	Class II	The pole barn and engine bay would house two Type-6 fire engine and three swamp buggies. In the event of a hurricane and anticipated flooding event, sensitive equipment, like engines, would be moved to safer locations with high ground, potentially out of BICY. Should hurricane or flooding event result in damages or delay in operability of the pole barn and engine bay, the equipment and operations housed in these structures could remain effective at a temporary offsite location while repairs are made.
Hangar	Class I	The hangar would house aviation assets that are currently located at the Oasis Airfield, including a Type-3 Bell 206 L3 Long Ranger helicopter. In the event of a hurricane and anticipated flooding event, sensitive equipment, like helicopters and fixed-wing aircraft, would be moved to a safer location with higher ground, potentially out of BICY. Should hurricane or flooding event result in damages or delay in operability of the hangar, the equipment and operations housed in these structures could remain effective at a temporary offsite location while repairs are made.
Jet Fuel Storage	Class II	Jet-A fuel would be stored on site in a 7,500 gallon UL2085 double wall fireguard enclosed canopy design AST tank 120/25 GPM Jet-A aircraft fueling skid mounted system. The system will include a 4,000 psi concrete, wire, or rebar reinforced support pad that will be 33' long x 14' wide x 8" thick. (Sloped Front to Rear as required). The tank bottom shell will be approx. 3" above grade.

Following EO 13690, because the proposed project involves a federal capital investment, the Federal Flood Risk Management Standard (FFRMS) applies. Per FEMA's implementing guidelines for EO 11988 and 13690, agencies may use a Freeboard Value Approach in establishing FFRMS flood elevations in areas where the 100-year Base Flood Elevation levels are known.

Description and Explanation of Flood Mitigation Plans

In accordance with Executive Order 13690 and the Freeboard Value Approach, all Class I actions (non-critical actions) will have an elevation of FEMA base flood +2 feet and all Class II actions (critical actions) will have an elevation of FEMA base flood + 3 feet. This will result in an elevation of 8 feet above NAVD88 for Class I structures, and 9 feet above NAVD88 for Class II structures identified in Table 1.

Incorporated into the FOC design are multiple mitigating strategies consistent with the intent of the *Criteria for Land Management and Use*, under 44 CFR Part 60 to reduce hazards to human life and property due the flooding. Additional fill will be added to the base of the FOC to raise the final finished elevation to 8 feet above NAVD88. This will allow for 2 foot of flood elevation variation above the FEMA-established base flood elevation. This final finished elevation will be an improvement over that of the existing adjacent buildings within the BICY Headquarters Complex. The proposed floor construction for the FOC will be a slab-on-grade with an impermeable vapor barrier below. The structural perimeter foundation/slab edge will be designed to resist hydrostatic and hydrodynamic loads and the effects of buoyancy. The FOC will be engineered to remain intact, to protect the contents, and to return online immediately following a direct flooding event. The structural design of the building is designed to 161 mph wind speed. The Risk Category per Florida Building Code / International Building Code for the purposes of structural design is Category II, which is between Category I (structures that represent a low hazard to human life in the event of failure, such as an agricultural building) and Category III (structures that represent a substantial hazard to human life in the event of a failure, such as an assembly building). The exposure category is D, which is the most stringent exposure and is used where the surrounding area is flat and unobstructed. The building is designed to function sustainably and be resilient. It is energy and water efficient, with a Florida friendly landscape design that minimizes irrigation needs and uses low maintenance plant selections. The construction uses durable, low maintenance materials and is made of metal in order to resist termites. The facility will comply with the Climate Friendly Park (CFP) goals aimed at reducing greenhouse gas emissions as well as meeting the Director's call to action item numbers 23 (Go Green), 24 (Invest Wisely), 30 (Tools of the Trade), and 31 (Destination Innovation).

It is anticipated that similar measures will be employed for the planned future structures identified in Table 1 for their respective Class determination. A risk analysis should be conducted during the design phase for these future structures to confirm assumptions about the level of protection required.

The land surface of the project area has been previously disturbed by anthropogenic modifications, so there are no anticipated adverse effects to the natural and beneficial floodplain values. The proposed construction of the FOC building and other structures and entranceway will be conducted in a way that minimizes disturbance to the soil surface. The soil surface will be graded to match that of the surrounding (undisturbed) soils and overland flow of flood waters is not expected to be

impeded or otherwise altered from natural flow patterns. Included in the project is a stormwater management facility to discharge stormwater runoff at pre-development rates to mimic the existing conditions (Walker Architects 2023). For the reasons discussed above, no significant impacts are expected to the 100-year floodplain from the Proposed Action.

There are no unacceptable risks to human health and life associated with the proposed project location. Large storm events are preceded by storm warnings typically 24 hours in advance. This provides sufficient time for storm preparations and/or evacuations of the proposed facilities.

Summary

The project area for the Proposed Action is within FEMA Zone AE, which is part of the 100-year floodplain. The NPS has determined that there are no practicable alternative locations for this critical facility. However, the NPS has determined that there is no unacceptable risk to human safety since the FOC and associated structures could be quickly evacuated in the case of flooding. Also, there is an established storm warning system that typically allows at least 24 hours prior notice before major storm events. There is minimal risk to property as mitigation measures (specified above) will have been taken during design and construction. No significant impacts to floodplains are expected resulting from the proposed project.

Therefore, it is determined that the Proposed Action is consistent with Executive Order 11988 (*Floodplain Management*), Executive Order 13690 (*Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*), Director's Order #77-2 (*Floodplain Management*), and NPS Procedural Manual #77-2 (*Floodplain Management*).

References

- Executive Order No. 11988, 42 Fed. Reg. 26951 (May 24, 1977). Accessed online at <https://www.archives.gov/federal-register/codification/executive-order/11988.html>
- Executive Order No. 13690, 80 Fed. Reg. 6425 (January 30, 2015). Accessed online at <https://www.federalregister.gov/d/2015-02379>
- NPS. 2002. *Procedural Manual #77-2, National Park Service Floodplain Management*. U.S. Department of the Interior, NPS, Washington, D.C. Accessed online at https://www.nps.gov/subjects/policy/upload/PM-77-2_10-2002_508.pdf.
- Walker Architects. 2023. *Fire Operations Center at Big Cypress National Preserve Headquarters Complex. Draft Schematic Design Submittal, January 5, 2023, PMIS 229154*. Report submitted to NPS, Denver Service Center, Lakewood, CO.