



Finding of No Significant Impact

Construct Everglades City Replacement Housing Hardened to Resist Storms and Flooding (86254)

Everglades National Park
Big Cypress National Preserve

Recommended:

Pedro Ramos
Superintendent, Everglades National
Park, Dry Tortugas National Park

Date

Recommended:

Thomas P. Forsyth
Superintendent, Big Cypress National Preserve

Date

Approved:

Robert A. Vogel
Regional Director, Interior Region 2, South Atlantic - Gulf
National Park Service

Date

INTRODUCTION

In compliance with the National Environmental Policy Act, the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the replacement of staff housing for Everglades National Park (EVER) damaged by Hurricane Irma. As a result of hurricane damage, the existing employee housing units were significantly damaged during the storm. Each housing unit sustained structural damages due to flooding and storm surge, interior damage due to water infiltration from windows and the roof membranes, mold infestation, and damages to plumbing and electrical systems.

The statements and conclusions reached in this Finding of No Significant Impact (FONSI) are based on documentation and analysis provided in the *Construct Everglades City Replacement Housing Hardened to Resist Storms and Flooding Environmental Assessment*. To the extent necessary, relevant sections of the EA are incorporated by reference below.

The EA was prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that (1) analyzes a reasonable range of alternatives to meet objectives of the proposal, (2) evaluates potential issues and impacts on resources and values, and (3) identifies mitigation measures to lessen the degree or extent of these impacts.

The EA was made available for public comment on the NPS Planning, Environment and Public comment website at <http://parkplanning.nps.gov/ever> from March 6, 2020 to April 7, 2020. Four public comments were received during this period; three supporting construction of new housing and one opposed. One commenter recommended the NPS consider adding covered parking and outside storage, vegetation/landscaping to shade the residence, and a Lanai or outside screened space for the residents to use.

SELECTED ACTION AND RATIONALE FOR THE DECISION

Based on the analysis presented in the EA the NPS selected the Proposed Action and Preferred Alternative – Construct new housing units in Big Cypress National Preserve (BICY) and demolish existing damaged structures in EVER.

Under the selected alternative, the NPS will construct a new, approximately 5,036-square-foot employee housing structure within BICY to replace three hurricane-damaged employee houses located in Everglades City within EVER. The proposed new housing will consist of a two-story, four-unit housing structure. Each unit will have two bedrooms and two bathrooms. The construction and relocation of the housing to BICY will provide housing that is safe for both seasonal and permanent staff and provide a structure that is built to current Florida building codes and capable of resisting hurricane winds and flooding. Providing hardened housing also ensures

NPS ability to rapidly establish occupancy after a storm event. No other construction alternatives have been carried forward for this project. The no-action alternative is not practicable, due to the need to provide safe, storm-resilient housing for park staff. Similarly, repair and rehabilitation of the existing EVER housing structures is not financially feasible and would provide a lower level of safety and storm-resiliency. Alternative housing locations and designs near the BICY site were considered and rejected because they would not be as cost effective or operationally efficient as the proposed four-unit structure.

The new employee housing structure will be located in BICY on Mahogany Drive in the Ochopee community. The structure will be constructed of reinforced concrete with impact resistant windows and steel roof and will be appropriately hardened to resist the impacts from hurricanes and flooding. The new quarters will be constructed on the vacant lots located in the BICY housing area which has established roads and all utility hook ups. The building will be constructed on a concrete pad on imported fill, above the FEMA flood elevation. The design will be based upon a structure in the NPS Housing Catalog (model 4).

Upon completion of construction of the housing units, the Everglades City units 601, 602, and 603 will be demolished. In addition to the demolition of the housing units, the existing wooden pilings, sidewalks, driveways and lift stations will also be removed. The demolition work is expected to last approximately 10 months.

RATIONALE

Hurricane Irma became the ninth named storm of the 2017 hurricane season. The existing employee housing units in Everglades City were significantly damaged. Each housing unit sustained structural damages due to flooding and storm surge, interior damage due to water infiltration from windows and the roof membranes, mold infestation, and damages to plumbing and electrical systems.

Of the alternatives considered, the selected alternative will enable the NPS to best meet the purpose of the project. The selected action will effectively and efficiently restore park operations and services as soon as possible, and reduce hardships facing park staff, unlike the no-action alternative.

This action is needed in order to provide adequate housing to support a healthy and safe living environment for park employees. This alternative was selected for implementation because construction of housing within BICY will provide the needed, flood and storm-resistant housing for EVER employees in an area that is already developed and will result in minimal environmental impacts.

MITIGATION MEASURES

The selected action incorporates a number of mitigation measures intended to protect park resources, avoid or reduce impacts. Specific mitigation measures are listed in appendix A.

FINDING OF NO SIGNIFICANT IMPACT

The Council on Environmental Quality regulations at 40 CFR section 1508.27 define significance with regard to context and intensity and identify considerations for determining whether the intensity of actions in the selected alternative will result in a significant effect on the human environment. The NPS planning team reviewed each of these criteria and determined that there will be no significant direct, indirect, or cumulative impact.

Based on the professional judgment of NPS staff, the selected action will have a minimal effect on park resources resulting from implementation of this project at BICY and EVER. Impact topics that were analyzed in the EA include soils, vegetation and wetlands, wildlife, threatened and endangered species, cultural resources, floodplains and coastal zone management.

VEGETATION AND WETLANDS

Vegetation at the proposed BICY housing site is primarily mowed turf grass growing on hard-packed lime rock fill. The construction site is located on a street with residential development. Because wetlands are not present within the proposed construction limits no impacts are anticipated to wetlands as a result of construction of the new housing structure. Impacts to vegetation would be limited to grasses that will readily re-establish after construction.

An emergent estuarine salt marsh complex surrounds the Everglades City housing units (601, 602, 603) that will be demolished. This wetland occupies most of the NPS property at this site, and at the time of survey featured several areas of standing water and a diverse mix of saltmarsh grasses and forbs as well as an early-successional stand of white mangroves.

While there are wetlands in the area, minimal, temporary disturbance to wetlands will occur as the sewage lift stations, wooden pilings, driveways and sidewalks are removed. Precautions will be taken to avoid impacts associated with staging areas, equipment storage, and construction access. All demolition and waste disposal will occur exclusively within the upland turf grass areas along the driveways and immediately adjacent to the buildings. Following excavation and removal of the lift stations, the resulting void will be filled with an appropriate soil to promote natural hydrology and vegetation comparable to the adjacent saltmarsh wetland. The area will be allowed to return to natural conditions once the man-made material is removed.

WILDLIFE

Minor impacts to wildlife anticipated as a result of the construction of the new housing unit or the demolition of the existing housing units will be limited in time and area of disturbance. Localized direct disturbance to wildlife may occur as a result of construction activities resulting from construction noise and the presence of people and equipment. This will likely cause wildlife to temporarily avoid the area during construction. Given the scale and location of the demolition and housing construction, effects to wildlife species in the area will be minimal and those species are not at risk of being extirpated from the area. Wildlife disturbed by construction will likely return

to the area following construction and the affected surrounding habitat will continue to support those species during and after construction.

THREATENED AND ENDANGERED SPECIES

No impacts to the Eastern Indigo snake (*Drymarchon couperi*) or the Florida Bonneted bat (*Eumops floridanus*) are anticipated as a result of the construction of the new housing unit or the demolition of the existing housing units.

Informal Section 7 Consultation with the U.S. Fish and Wildlife Service (FWS) was initiated via email on January 7, 2020 requesting concurrence of the determination that the proposed action ‘may effect, but is not likely to affect’ both the Eastern Indigo snake and the Florida Bonneted bat.

A revised determination of ‘no effect’ for the Eastern Indigo snake was recommended by the FWS via email on February 24, 2020. The NPS agreed to revise the determination.

Concurrence for both determinations was received from the FWS on March 6, 2020.

Because both areas where work will occur lie within developed and maintained landscapes that do not contain open wetlands, it has been determined that the project will have no effect on other species that may occur in the region, including the Florida panther, Wood stork, Snail kite, American crocodile, Manatee, Black rail (Proposed) and listed pine rockland plants. It has also been determined that no designated critical habitat in EVER or BICY would be impacted by the proposed project activities.

CULTURAL RESOURCES

Compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (54 USC 306108), is being completed separately from and concurrent to the NEPA process. Potential impacts to cultural resources associated with the preferred alternative are documented in the EA.

The project area is located within the boundaries of a larger resource group, NPS Big Cypress Housing. No archeological sites were identified during survey within the new construction project area. One historic resource, the NPS Big Cypress Housing resource group, was identified and recorded as a result of the historic resources survey. The project area is located within the boundaries of the larger resource group and the proposed construction will occur within vacant lots. Only four resources within the resource group are considered to be historic and were known to be constructed before 1973. All of the resources are considered to be non-contributing to the resource group. Additionally, the resource group is considered to be ineligible for inclusion in the National Register of Historic Places (NRHP). Therefore, no impacts are anticipated to cultural resources.

None of the three Everglades City housing units are considered to be eligible for listing in the NRHP. No impacts are anticipated from the demolition of these housing units. Concurrence from the Florida State Historic Preservation Officer was received on April 13, 2020.

FLOODPLAINS

Executive Order 11988, "Floodplain Management" requires the NPS and other federal agencies to evaluate the likely impacts of actions in floodplains. The objectives of the executive order are: (1) to avoid to the extent possible long-term and short-term adverse impacts associated with occupancy, modification, or destruction of floodplains and (2) to avoid indirect support of development and new construction in such areas wherever there is a practicable alternative.

NPS Director's Order (DO) #77-2: Floodplain Management and Procedural Manual (PM) #77-2: Floodplain Management establish NPS guidelines for compliance with Executive Order 11988. These guidelines allow construction within a 100-year floodplain for recreational facilities such as parking and trails. The guidelines also state that in coastal areas structures can only be placed in the coastal high hazard area when the structures or facilities are for management and legislated use of the affected area. The guidelines go on to state that "their placement and construction shall be at locations least likely to be affected by the actions of coastal storms and flooding."

The entirety of BICY occurs within the Federal Emergency Management Administration (FEMA) 1% (zone AE) Annual Flood Hazard Area, and it is this floodplain that constitutes the Big Cypress watershed. This floodplain protects the flow of fresh water from the Big Cypress Swamp into estuaries of neighboring EVER and the Ten Thousand Islands National Wildlife Refuge.

The design of the proposed housing structure will incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood Prone Areas (44 CFR section 60.3) and in accordance with local, county or state requirements for flood prone areas. With the implementation of these methods, no impacts to the floodplain are anticipated.

Demolition of the existing housing units will not affect the current ground elevation. Therefore, no impacts to the floodplain are anticipated.

A Floodplain Statement of Findings (FSOF) has been prepared in conjunction with the EA. The purpose of the FSOF is to present the rationale for the location of the proposed action in the floodplain, the continued use of existing park infrastructure and development within the floodplain, and to document the anticipated effects on floodplain values. This document is included as an appendix to this FONSI.

COASTAL ZONE MANAGEMENT (CZM)

The sites of the proposed demolition of housing at Everglades City and the site of construction of the housing unit in the Ochopee community in BICY are located within the Florida Coastal Zone. Activities proposed within the coastal zone by a Federal agency, such as NPS, which affect the land or water uses or natural resources of its coastal zone must be reviewed by the state for consistency with its coastal management program.

Construction in the current housing area at Ochopee was previously determined to be consistent with the Florida Coastal Management Program during the 1991 General Management Plan/Environmental Impact Statement process. NPS has determined that the current project to construct a four-unit employee housing structure at Ochopee is consistent with the Florida Coastal Management Program and would not cause any effects that would alter this previous determination. The NPS submitted a transmittal letter with the March 2020 EA to the Florida State Clearinghouse on March 6, 2020 requesting state agency review and comments, including a CZM consistency determination for the current project. The state has determined the project complies with the Florida Coastal Management Program, and other applicable state and local laws, regulations and policies. A notice of consistency was provided on April 13, 2020, thus completing all relevant CZM requirements.

CONCLUSION

As described previously, the selected action 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 or natural environment in accordance with Section 102(2)(c) of the National Environmental Policy Act.

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

APPENDICIES

APPENDIX A – MITIGATION

APPENDIX B – NON-IMPAIRMENT DETERMINATION

APPENDIX C – RESPONSES TO CONCERNS

APPENDIX D – CONSULTATION CORRESPONDENCE

APPENDIX A

MITIGATION MEASURES ASSOCIATED WITH THE SELECTED ALTERNATIVE

The following mitigation measures will be applied to avoid or minimize potential adverse impacts associated with the selected action and to ensure Big Cypress National Preserve and Everglades National Park's cultural and natural resources are protected.

General

- A project orientation will be provided to all construction workers to increase their understanding and sensitivity to the environment and minimize their impacts.
- The project area will be monitored to ensure that impacts stay within the parameters of the project area and do not escalate beyond the scope of the environmental assessment.
- Construction limits will be mapped and may be flagged or fenced to protect sensitive areas.
- The project contractors will be required to conform to all applicable permits or project conditions. All construction equipment will be stored within the delineated work limits.
- All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project site upon project completion.
- The job site will be checked at the end of each day for trash, food, and food-related items remaining at the site.
- Non-vegetation construction debris will be placed at least daily in refuse containers and disposed of at least weekly. No refuse burying or burning will be allowed.
- Contractors will comply with applicable federal and state regulations on the storage, handling, and disposal of all hazardous materials and waste. Provisions will be made for storage, containment, and disposal of hazardous materials used on-site. To minimize possible petrochemical leaks from construction equipment, all equipment will be monitored frequently to identify and repair any leaks and will be staged in designated areas suitable to contain leaking materials. Trained personnel will clean up and dispose of any leakage or spills from construction equipment such as hydraulic fluid, oil, or fuel. Fueling and fuel storage areas will be permitted only at approved locations.

Vegetation and Wetlands

- Equipment staging and debris removal will occur exclusively within the upland turf grass areas along the driveways and immediately adjacent to the buildings, located

outside of wetland areas to the greatest extent possible. If work in wetland areas cannot be avoided, then demolition will be conducted during the dry season when soil conditions are firm and stable to avoid wetland soil disturbance. If work must occur when wetland soils are wet and prone to mechanical disturbance, construction matting would be used to spread ground pressure and reduce soil impacts.

- Temporary barriers will be installed to protect natural surroundings (including trees, plants, and root zones). Any native vegetation to be preserved within the project area will be clearly identified by marking, fencing, or another appropriate technique prior to any construction activities.
- Prior to entry into the park, heavy equipment will be cleaned to prevent importation of nonnative plant species, and inspected to ensure that hydraulic fittings are tight, hydraulic hoses are in good condition and replaced if damaged, and there are no petroleum leaks.
- Removal of vegetation will be done in a manner that will not affect vegetation not proposed for removal.
- A contractor damage clause for impacts to trees / vegetation not within the project area will be part of the construction contract.

Soils

- A grading and erosion and sediment control plan will be prepared by the contractor to minimize erosion during construction.
- Ground/soil disturbance will be minimized to the greatest extent possible. All disturbed soil and fill slopes will be stabilized in an appropriate manner by the contractor.
- Topsoil will be salvaged from excavated areas for use in recovering source area or other project areas. Materials will be reused to the maximum extent possible.
- Excavated materials will be reused, rather than removed from the project area, for use in constructing berms or to level areas of impact.
- Piling of excavated soil alongside trees will be avoided.
- Any imported soils, fills, or aggregates will be checked prior to delivery to ensure they are free of deleterious materials. Sources of imported materials will be compiled by construction contractor and submitted for park review and approval prior to construction.
- If needed, weed-free clean fill and topsoil will be used.
- Erosion control measures, including approved siltation control devices (silt fences), will be used in construction areas to reduce erosion and capture eroding soils.

Water Quality

- A stormwater pollution prevention plan will be prepared by the construction contractor and implemented for construction activities to control surface runoff, reduce erosion, and prevent sedimentation from entering water bodies during construction. In addition, this plan will address hazardous materials storage, spill prevention, and response. The plan will be submitted for park review and approval prior to construction.
- Best management practices will be followed to stabilize the site, prevent erosion, and convey stormwater runoff to existing drainage systems, keeping contaminants and sediments on-site. Best management practices include silt fences and hay bales placed at the foot of slopes and at other locations to contain excavated material and to filter sediment from stormwater runoff, and temporary seeding of slopes for short-term restabilization.
- A comprehensive spill prevention / response plan will be developed that complies with federal and state regulations and addresses all aspects of spill prevention, notification, emergency spill response strategies for spills, reporting requirements, monitoring requirements, personnel responsibilities, response equipment type and location, and drills and training requirements. The spill prevention/response plan will be submitted to the park for review/approval prior to commencement of construction activities.
- Temporary sediment control devices will be employed as needed, such as filter fabric fences, sediment traps, or check dams.
- Stockpiled soil will be covered throughout the duration of the project with semipermeable matting or plastic or another type of erosion control material.

Air Quality

- All construction equipment, diesel trucks, and generators will be equipped with best available control technology for emission reduction of nitrogen oxides and particulate matter.
- Idling of construction and personal vehicles will be reduced or eliminated whenever possible.

Acoustic Environment / Soundscape

- Standard noise abatement measures will be followed during construction. All construction equipment will have functional exhaust/muffler systems. Other measures may include: the use of best available noise control techniques

wherever feasible; the use of hydraulically or electrically powered impact tools when feasible; the use of hand tools when feasible.

- The idling of motors will be limited except as necessary.
- To the extent possible, all on-site noisy work above 76-A weighted decibels (dBA) (such as the operation of heavy equipment) will be performed between the hours of 7:00 a.m. and 5:00 p.m. to minimize disturbance of nearby neighbors.

Health and Safety

- Measures will be implemented to ensure employee and visitor health and safety. Measures may include, but are not limited to, noise abatement, visual screening, and directional signs that aid visitors in avoiding construction activities.
- An emergency notification plan will be developed that complies with park, federal, and territorial requirements and allows contractors to properly notify park, federal, and/or territorial personnel in the event of an emergency during construction activities. The plan will address notification requirements related to such events as fire, personnel and/or visitor injury, and releases of spilled materials. The plan will be submitted for park review and approval prior to construction.

Cultural Resources

- If previously unidentified cultural resources are discovered during project implementation all work in that area must stop and the Superintendent, Park Archaeologist or Chief of Cultural Resources must be notified immediately. If items protected by the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during project implementation all activity must cease in the area of discovery and immediate notice made to the Superintendent, as well as the appropriate federally recognized Indian Tribes / Organizations and State Historic Preservation Officer (SHPO).

APPENDIX B:

NON-IMPAIRMENT DETERMINATION

The NPS Organic Act of 1916 and the General Authorities Act of 1970 prohibit impairment of park resources and values. The NPS Management Policies 2006 use the terms "resources and values" to mean the full spectrum of tangible and intangible attributes for which the park is established and managed, including the Organic Act's fundamental purpose and any additional purposes as stated in the park's establishing legislation. The impairment of park resources and values may not be allowed unless directly and specifically provided by statute. The primary responsibility of the National Park Service is to ensure that park resources and values will continue to exist in an unimpaired condition that will allow people to have present and future opportunities to enjoy them.

A determination of impairment is made for each of the resource impact topics carried forward and analyzed in the environmental assessment. Impairment is 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. 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;
- key to the natural or cultural integrity of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

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

The National Park Service (NPS) prepared an environmental assessment titled *Construct Everglades City Replacement Housing Hardened to Resist Storms and Flooding* to examine the environmental impacts associated with the replacement of staff housing for Everglades National Park (EVER) damaged by Hurricane Irma. Newly constructed housing will be placed within a developed area in Big Cypress National Preserve (BICY). The NPS-selected action is the preferred alternative (alternative B) in the environmental assessment. A non-impairment determination was completed for this alternative. The resource impact topics analyzed for the selected alternative are soils, vegetation and wetlands, wildlife, cultural resources, threatened and endangered species, and floodplains.

SOILS

At the construction site of the new BICY housing units, approximately 3000 cubic feet of soil would be transported in to raise the ground level by approximately five feet. The concrete foundation slab will be poured on top of it.

Minimal soil disturbance would occur as the sewerage lift stations, wooden pilings, driveways and sidewalks are removed. Over time, the entire area of the demolished housing would naturally convert to the adjacent wetland. Following excavation and removal of the lift stations, it is recommended that the resulting void should be filled with a locally sourced soil to promote natural hydrology and vegetation comparable to the adjacent saltmarsh wetland.

Because the selected action would cause minimal disturbance to soils in small, localized areas, no impairment will occur as a result of the selected action.

VEGETATION AND WETLANDS

Vegetation at the proposed BICY site is primarily mowed turf grass growing on hard-packed lime rock fill. The construction site is located on a street with residential development. No wetlands are present within the proposed construction limits. Therefore, no impairment to vegetation and wetlands as a result of the selected action would occur as a result of construction.

An emergent estuarine salt marsh complex surrounds the Everglades City housing units (601, 602, 603). This wetland occupies most of the NPS property at this site. Removal of EVER housing units would not result in adverse impacts to the wetland or vegetation, therefore, no impairment will occur as a result of the selected action.

WILDLIFE

Minor impacts to wildlife are anticipated as a result of the construction of the new housing unit and the demolition of the existing housing units. Construction and demolition will be limited in time and area of disturbance. Localized direct disturbance to wildlife may occur as a result of construction activities resulting from construction noise and the presence of people and equipment. This will likely cause wildlife to temporarily avoid the area during construction. Given the scale and location of the demolition and housing construction, effects to wildlife species in the area will be minimal and those species are not at risk of being extirpated from the area. Because wildlife disturbed by construction will likely return to the area following construction and the affected surrounding habitat will continue to

support those species during and after construction, no impairment to wildlife will occur as a result of the selected action.

THREATENED AND ENDANGERED SPECIES

No impacts to the Eastern Indigo snake (*Drymarchon couperi*) or the Florida Bonneted bat (*Eumops floridanus*) are anticipated as a result of the construction of the new housing unit or the demolition of the existing housing units. Because both areas where work will occur lie within developed and maintained landscapes that do not contain open wetlands, it has been determined that the project will have no effect on other species that may occur in the region, including the Florida panther, Wood stork, Snail kite, American crocodile, Manatee, Black rail (Proposed) and listed pine rockland plants. It has also been determined that no designated critical habitat in EVER or BICY would be impacted by the proposed project activities. Because no impacts to threatened and endangered species or critical habitat is anticipated, no impairment to threatened and endangered species will occur as a result of the selected action.

CULTURAL RESOURCES

No archeological sites were identified during surveys within the new housing construction project area. One historic resource, the NPS Big Cypress Housing resource group, was identified and recorded as a result of the historic resources survey. The resource group is considered to be ineligible for inclusion in the National Register of Historic Places (NRHP).

None of the three Everglades City housing units are considered to be eligible for listing in the NRHP. No impacts are anticipated from the demolition of these housing units.

Because no cultural resources will be adversely impacted, no impairment to cultural resources will occur as a result of the selected action.

FLOODPLAINS

The design of the proposed housing structure in BICY will incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood Prone Areas (44 CFR section 60.3) and in accordance with local, county or state requirements for flood prone areas. With the implementation of these methods, no impacts to the floodplain are anticipated.

Demolition of the existing housing units will not affect the current ground elevation. Therefore, no impacts to the floodplain are anticipated.

Because mitigation measures have been incorporated into the design of the new structures and floodplains will not be adversely impacted from the removal of the housing units, no impairment to the floodplain will occur as a result of the selected action.

CONCLUSION

In conclusion, as guided by this analysis and the results of public involvement activities, it is the Superintendent's professional judgment that there will be no impairment of park resources and values from implementation of the selected action. The National Park Service has determined that implementation of the selected action will not constitute an impairment of the resources or values of Everglades National Park or Big Cypress National Preserve. This conclusion is based on a thorough analysis of the environmental impacts described in the environmental assessment, and the professional judgment of the decision maker guided by the direction of NPS Management Policies 2006.

APPENDIX C

RESPONSES TO CONCERNS

The following are NPS responses to concerns that were raised by commenters on the environmental assessment. No substantive comments or comments that necessitated changes to the plan/EA were received during the public commenting period. This appendix includes the responses to non-substantive comments identified as being of high importance to the public or needing clarification.

Concern: Covered parking and garage/outdoor storage would be lost. Also, would any features be incorporated to shade the new structure?

Response: No covered parking will be provided. Four parking spaces will be located on each side of the building.

A screened-in covered porch area with an enclosed storage space for each living unit is included in the design.

Concern: Keeping the existing housing units in Everglades City provides adequate space for staff members, and the location is close enough to the visitor's center to create a community with the staff that reside on campus. The location is within walking or biking distance of the visitor's center.

Response: Retaining the existing housing units would not meet the need to provide safe, storm resilient housing for the park staff. Repair and rehabilitation of these units is not financially viable.

The new housing will be located 7.5 miles away. Alternative housing locations and designs near the BICY and EVER sites were considered and rejected for further consideration because the proposed site is located in a current NPS residential development, with utilities and infrastructure in place.

APPENDIX D – CONSULTATION CORRESPONDENCE

From: Stahl, Chris <Chris.Stahl@dep.state.fl.us>
Sent: Monday, April 13, 2020 10:21 AM
To: Culhane, Brien F. <Brien_Culhane@nps.gov>
Cc: State_Clearinghouse <State.Clearinghouse@dep.state.fl.us>
Subject: [EXTERNAL] State Clearance Letter for FL202003118865C - Environmental Assessment to Construct Everglades City Replacement Housing Hardened to Resist Storms and Flooding Everglades National Park Big Cypress National Preserve, Collier County

April 13, 2020

Brien F. Culhane
Chief, Planning And Compliance
Everglades & Dry Tortugas National Parks
40001 State Road 9336
Homestead, Florida 330346733

RE: Department of the Interior, National Park Service - Environmental Assessment to Construct Everglades City Replacement Housing Hardened to Resist Storms and Flooding Everglades National Park Big Cypress National Preserve, Collier County, Florida.
SAI # FL202003118865C

Dear Brien:

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 Florida Department of Environmental Protection's South District office has reviewed the proposed action and provided the following comments.

1. Solid and Hazardous Waste:

- Should solid waste be generated from construction, demolition or renovation activities, the waste must be taken to a permitted disposal site (Chapter 62-701, F.A.C.).
- If hazardous waste will be generated from on-going activities on site, an EPA generator ID number may be required prior to transport and disposal according to applicable regulations (Chapter 62-730, F.A.C.).
- Should solid or hazardous waste be discovered on-site during construction activities, contact the DEP for further direction.

2. Demolition and Renovation:

- A complete asbestos notification to DEP is required at least 10 working days prior to a demolition whether or not asbestos may be present. Guidance and forms are available at the following link: <https://floridadep.gov/air/permitting-compliance/content/asbestos>.
- The following items should be removed from the structure and properly managed prior to demolition to reduce risks to human health and the environment, as well as avoid potential violations of state and federal hazardous waste regulations.

- Fluorescent lamps and high intensity discharge (HID) lamps
- Ballasts containing polychlorinated biphenyls (PCBs)
- Mercury containing devices such as thermostats, switches and electrical relays
- Nickel-cadmium or lead acid batteries in emergency lights, exit signs, security alarm systems, smoke detectors or carbon monoxide detectors
- Lead containing components such as roof flashings, roof vent pipes, plumbing pipes, door frames, window sills, lead lined doors or walls from x-ray rooms
- Outdoor lighting fixtures including sodium vapor lamps and ballasts
- Freon from air-conditioning units
- Hazardous products or wastes

Once the material has been removed, it should be containerized, labeled and stored in a secure manner prior to shipping off-site for disposal or recycling in accordance with state and federal regulations. Enclosed are links to fact sheets on managing spent fluorescent and HID lamps as well as mercury containing devices and recyclers. Receipts for the recycling or disposal of the material should be obtained and maintained for at least three years.

Management of Demolition and Renovation Waste (link): <https://floridadep.gov/waste/waste-reduction/documents/management-demolition-and-renovation-waste>

Managing Spent Fluorescent and High Intensity Discharge (HID) Lamps (link): <https://floridadep.gov/osi/green-lodging/documents/how-handle-fluorescent-and-high-intensity-discharge-lamps>

Managing Discarded Mercury-Containing Devices (MCDs) in Florida (link): <https://floridadep.gov/waste/permitting-compliance-assistance/content/mercury-main-page>

DEP also has additional construction/demolition information on the following website: <https://floridadep.gov/waste/waste-reduction/content/construction-and-demolition-debris-recycling>

The proposed activities may require an Environmental Resource Permit form the South Florida Water Management District. The applicant should contact their permitting division for additional information and guidance <https://www.sfwmd.gov/doing-business-with-us/permits/environmental-resource-permits>.

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 at (850) 717-9076.

Sincerely,

Chris Stahl

Chris Stahl, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3800 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
ph. (850) 717-9076
State.Clearinghouse@floridadep.gov



Vero Beach, FW4 <verobeach@fws.gov>

2020-TA-0229

request for concurrence with section 7 determinations - replace Everglades National Park housing in Everglades City

1 message

Rec'd 1-2-2020

Dean, Tylan <tylan_dean@nps.gov>

Thu, Jan 2, 2020 at 1:45 PM

To: FW4 Vero Beach <verobeach@fws.gov>

Cc: Ashleigh Blackford <ashleigh_blackford@fws.gov>, miles meyer <miles_meyer@fws.gov>, "Muiznieks, Britta" <britta_muiznieks@nps.gov>, Whitney Howeth <whitny_howeth@nps.gov>

CC

Dear USFWS Vero Beach:

Everglades National Park (EVER) would like to request concurrence with our determinations of effect on a proposed housing demolition project in Everglades City and a housing construction project to replace the function of the demolished houses in the Big Cypress National Preserve (BICY) residential housing area. The purpose of the project is to demolish housing that was damaged during Hurricane Irma that would be unsustainable to repair and maintain into the future, and construct a new four-plex unit in the BICY housing area in a location that will be less prone to future storm damage, using modern storm-resistant materials and design. The new quarters will be constructed on vacant lots located in the BICY housing area with pre-existing roads, curb and gutter, and utility hook up. Upon completion of the four-plex housing unit in BICY, the Everglades City units 601, 602, and 603 will be demolished with the use of an excavator and dump trucks. In addition to the demolition of the housing units, wooden pilings, sidewalks, driveways and lift stations will also be removed, which will require soil excavation. The demolition work is expected to span 8 to 10 months.

Both the construction and demolition areas lie within maintained landscapes immediately adjacent to other development, and no disturbance to natural vegetation communities or wetlands will occur. We propose to adopt best management practices to avoid and minimize potential impacts to wildlife and listed species.

Both of the projects occur within potential Eastern indigo snake habitat and we will therefore be implementing applicable Standard Protection Measures for the Eastern Indigo Snake (dated August 12, 2013). The Everglades City housing demolition project will revert a developed area back to a non-developed area where plant succession will be allowed to occur naturally. The four-plex construction project in the BICY housing area will be constructed on cleared vacant lots that are currently maintained as a mowed turf lawn. Minimal cover/shade that an indigo snake can potentially use will be removed. However, the operation of equipment in brushy and/or grassy areas has the potential to disturb, injure, or kill snakes that are not readily visible above ground or beneath the surface. During demolition and construction, heavy machinery will be utilized in areas that may be occupied by indigo snakes. We therefore make the determination that this project may affect, but is not likely to adversely affect indigo snakes.

We know that bonneted bats occur within the EVER and BICY however we do not believe the residences slated for demolition are currently utilized for roosting. The structures prior to demolition. No trees will need to be removed during affect the bat's ability to forage or their prey base. We are likely to adversely affect bonneted bats.

Because both areas where work will occur lie within develop we have determined that the project will have no effect on a panther, wood stork, snail kite, American crocodile, manate determined that no designated critical habitat in EVER or B questions or need additional information, please contact Br 4239.

New Four-plex location in BICY:



U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
772-562-3909 Fax 772-562-4288

FWS Log No. 2020-1-0229

The U.S. Fish and Wildlife Service has reviewed the information provided and finds that the proposed action is not likely to adversely affect any federally listed species or designated critical habitat protected by the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et. seq.). A record of this consultation is on file at the South Florida Ecological Service Office.

This fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

Roxanna Hinzman, Field Supervisor

3/4/2020
Date



FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Mr. Pedro M. Ramos
Superintendent, National Park Service
Everglades and Dry Tortugas National Parks
40001 State Road 9336
Homestead, Florida 33034

April 13, 2020

RE: DHR Project File No.: 2020-1183
*Proposed Demolition of Three Housing Units (601, 602, and 603) in Gulf Coast District,
Everglades National Park and the Construction of a Four-Unit Residential Unit in Big
Cypress National Preserve
Big Cypress National Preserve, Collier County*

Mr. Ramos:

This office reviewed the referenced projects for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*. 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*.

Demolition of Three Housing Units in Gulf Coast District, Everglades National Park

This office previously determined that Building Nos.: 601 (404 Copeland Avenue - 8CR1174), 602 (406 Copeland Avenue - 8CR1175), and 603 (408 Copeland Avenue - 8CR1176), did not appear to meet the criteria for listing in the *National Register*. Therefore, based on the information provided, it is the opinion of this office that the proposed demolitions will have no effect on historic properties.

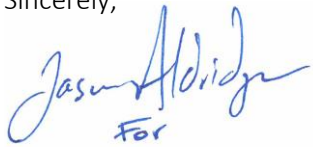
Construction of a Four-Unit Residential Unit in Big Cypress National Preserve

We note that this undertaking is located within the newly recorded NPS Big Cypress Housing Resource Group (8CR1516). This office concurs that the resource group does not appear to meet the criteria for listing in the *National Register*. Janus Research and NPS archaeologist placed two shovel test within the project area and did not encounter any cultural resources. Based on the information provided, our office concurs that the proposed new construction will have no effect on historic properties.

Mr. Ramos
Project No: 2020-1183
April 13, 2020
Page 2 of 2

If you have any questions, please contact Scott Edwards, Historic Preservationist, by electronic mail scott.edwards@dos.myflorida.com, or at 850.245.6333 or 800.847.7278.

Sincerely,



Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
and State Historic Preservation Officer

APPENDIX E

STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11988 FLOODPLAINS MANAGEMENT

CONSTRUCT REPLACEMENT HOUSING-HARDENED TO RESIST STORMS AND FLOODING

PEPC # 86254

FLORIDA

Approved: _____ Date _____
Regional Director, Interior Region 2, South Atlantic - Gulf

INTRODUCTION

Executive Order 11988, "Floodplain Management" requires the National Park Service (NPS) and other federal agencies to evaluate the likely impacts of actions in floodplains. The objectives of the executive order are: (1) to avoid to the extent possible long-term and short-term adverse impacts associated with occupancy, modification, or destruction of floodplains and (2) to avoid indirect support of development and new construction in such areas wherever there is a practicable alternative.

Director's Order (DO) #77-2: Floodplain Management and Procedural Manual (PM) #77-2: Floodplain Management establish NPS guidelines for compliance with Executive Order 11988. These guidelines allow construction within a 100-year floodplain for recreational facilities such as parking and trails. The guidelines also state that in coastal areas structures can only be placed in the coastal high hazard area when the structures or facilities are for management and legislated use of the affected area. The guidelines go on to state that "their placement and construction shall be at locations least likely to be affected by the actions of coastal storms and flooding." The purpose of this Statement of Findings is to present the rationale for the location of a proposed action (building a new residential 4-plex staff housing facility, see Proposed Action, below) in the floodplain, the continued use of existing park infrastructure and development within the floodplain, and to document the anticipated effects on floodplain values.

PROPOSED ACTION

The proposed project would consist of the construction of one 5,036 square foot, two story, four unit employee housing structure. Each unit would have two bedrooms and two bathrooms. The structure would be of reinforced concrete construction with impact resistant windows, steel roof and appropriately hardened to resist the impacts from hurricanes and flooding to meet current Florida building codes. The new quarters would be constructed on the vacant lots located in Big Cypress National Preserve (BICY) on mahogany Drive in Ochopee, Florida. The proposed site is in the BICY staff housing area and has established roads and all utility hook ups. The structure would be constructed on a concrete pad atop an earthen mound of imported fill, graded such that the structure would be above the Federal Emergency Management Agency (FEMA) flood elevation. The design follows the NPS Housing Catalog Model 4. Modifications to the model will be evaluated to reduce the habitable and non-habitable areas. Upon completion of the housing units, Everglades National Park (EVER) housing units 601, 602, and 603 in Everglades City, Florida would be demolished.

The existing employee housing structures in Everglades City are in grave disrepair due to structural deficiencies, water infiltration from windows and roof membranes, mold and rodent infestation, and plumbing and electrical deficiencies. The three houses are within the FEMA 1% Annual Flood Hazard Area (zone AE) and standing salt water has persisted on the grounds since 2016. The driveways have been raised using asphalt millings so residents would not have to drive through saltwater on a regular basis. The persistent flooding over the decades has deteriorated the creosote-treated wood supports, degrading the structural stability of the houses. Recent estimates of repair cost exceed the replacement value of the current housing units. A new housing facility would provide safe and clean housing for park employees, and will also help attract and retain highly skilled employees.

Similar flooding conditions are regularly experienced in the visitor and operations areas of the EVER Gulf Coast Visitor Center in Everglades City. Because of these hazards, the park is pursuing the relocation of

maintenance facilities from the waterfront to BICY, approximately six miles away. The resulting increased visitation to BICY would require additional support staff to protect and provide services to park patrons. The relocation of staff housing to BICY will not only provide housing that is safe for both seasonal and permanent staff, but will also provide a structure that is built to current Florida Building Codes and is capable of resisting hurricane winds and flooding.

No other construction alternatives have been carried forward for this project. The no-action alternative is not practicable, due to the need to provide safe, storm-resilient housing for park staff. Similarly, repair and rehabilitation of the existing EVER housing structures is not financially feasible. Alternative housing locations and designs near the BICY site were considered and rejected because they would not be as cost-effective or operationally efficient as the proposed 4-Plex.

FLOODPLAINS WITHIN THE PROJECT AREA

As stated in its foundation document, the purpose of BICY is to “assure the preservation, conservation, and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress watershed in the State of Florida and to provide for the enhancement and public enjoyment thereof.” The entirety of BICY occurs within the FEMA 1% Annual Flood Hazard Area, and it is this floodplain that constitutes the Big Cypress watershed. This floodplain protects the flow of fresh water from the Big Cypress Swamp into estuaries of neighboring EVER and the Ten Thousand Islands National Wildlife Refuge.

The proposed 4-plex site along Mahogany Drive at BICY is located in a former residential development area southwest of the BICY park headquarters. The property was purchased by the National Park Service in 1978 for the development of park administrative and visitor use facilities. Modern utility hookups (electricity, sewer, water, etc.) were installed in the early 2000s. Other staff housing facilities are located adjacent to the project location. The site is composed primarily of filled land built up from material borrowed from the adjacent canal system, and is maintained as a mowed turf lawn. The soils underlying the site are hard-packed lime rock and are not expected to contribute significantly to flood storage or storm water management. Surface water flows directly into the adjacent canals which convey water out toward the coast through the Big Cypress watershed. In contrast to the expansive wetland complex that makes up most of BICY, this developed area with altered soils and vegetation does not support significant biological diversity, and does not contribute substantially to the ecological and floodplain values and function of surrounding Big Cypress watershed.

This project site is within the FEMA 1% Annual Flood Hazard Area (zone AE), with a base flood elevation of 6 feet. The ground elevation is approximately 3 feet as indicated on the U.S. Geological Survey's (USGS) topographic map for the area. Similar to the nearby EVER facilities in Everglades City, BICY is subject to flooding from storm surge and extreme rain events. In recent years several storms (hurricanes or tropical depressions) have required personnel and equipment evacuation and closure of the facilities.

JUSTIFICATION FOR CONTINUED USE OF THE FLOODPLAIN

The purpose of this project would be to replace existing structurally deficient EVER staff housing in Everglades City. The current Everglades City housing site is within the FEMA coastal high hazard area, and is subject to floodwater elevations as deep as 13 feet—a substantially higher flood elevation and expected flood frequency than the proposed BICY housing site. The Gulf Coast site at EVER is the only land-based

access to the park on the west coast of Florida, providing access for the public and park staff to Ten Thousand Islands, Wilderness Waterway, Gulf of Mexico, and Florida Bay. These facilities are historically and functionally dependent on their locations. Moving the entire administrative and visitor services site out of the coastal floodplains would be cost-prohibitive and may not meet the will of Congress.

Some employees must be housed near the EVER Gulf Coast site and BICY because their jobs require rapid response time to emergencies. While EVER and BICY have been successful in attracting a talented and dedicated staff, they face the challenge of the remote location, the high cost of fuel, and the lack of affordable housing nearby. Because the housing market in surrounding communities is expensive, many of these employees would be unable to work at this location because they could not find appropriate short-term housing within a reasonable distance.

As previously noted, estimates of repair cost exceed the replacement value of the current housing units. Due to the high coastal flood hazard in Everglades City, the park seeks to relocate staff housing to BICY, which is approximately 6 miles farther inland. Because the entirety of BICY occurs within the floodplain, avoidance of floodplain impacts through alternative site selection is not possible. All existing infrastructure and development within BICY is located on disturbed ground. Moving and attempting to relocate the proposed housing facility within or outside of the park would result in adverse impacts and the loss of other natural or cultural resource values in the area. The proposed 4-plex site on Mahogany Drive is already developed and contributes relatively little to the natural resource and floodplain values of the area. Therefore, construction at this location would yield minimal impacts to floodplain values while still meeting the need to provide adequate and safe housing to park staff.

SPECIFIC FLOOD RISKS

In recent years, several severe storms (hurricanes or tropical depressions) have required the evacuation of personnel and equipment and facility closures. These storms, coupled with high tides and westerly winds, have caused flooding throughout the preserve. As noted above, the proposed housing site has a base flood elevation of 6 feet, approximately 3 feet above the existing grade.

During past hurricane events, flood-related damage to facilities included utility outages, potable water contamination requiring a boil water advisory, structural undermining of building foundations, and mildew and mold damage from lingering moisture. During flood events, roadways and utility systems may become inundated with surface water. Roadways may be closed to prevent vehicle damage to asphalt surfaces and safety impacts to the public. The proposed project does not include additional storage facilities for fuels or toxic materials or museum collections in a floodplain.

MITIGATION

The weather and storm conditions that lead to high water events, and the scope and duration of these events, are known by park staff. Ample notice of severe weather is provided by the National Weather Service and other agencies, making warning and evacuation a practical option for protection of human life. EVER and BICY continue to maintain active hurricane evacuation plans. The plans detail responsibilities of individual park employees for advanced preparedness measures at the onset of the hurricane season. The hurricane plans have proven effective in maintaining safety and reducing property damage during storms, and reviewed and updated regularly.

The design of the proposed housing structure would incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood Prone Areas (44 CFR section 60.3) and in accordance with local, county or state requirements for flood prone areas. The plans propose a graded fill platform to raise the structure above the base flood elevation. By elevating the structure in this way, flood risks and potential for damage are minimized. Because the site has been developed and other park housing facilities already exist at this site, floodplain values have already been impacted prior to construction and additional adverse impacts are negligible. Construction of a comparable facility in an alternative undeveloped part of the park would require substantially greater adverse impacts to floodplain values as well as natural and cultural resources.

The floodplain impacts analysis contained in this Statement of Findings and the Environmental Assessment with which this report is associated constitute the environmental compliance necessary to implement the proposed project "Construct Replacement Housing-Hardened to Resist Storms and Flooding" should the NPS choose to do so.

SUMMARY

The National Park Service has determined that implementing the proposed project would not result in any additional disruption of floodplains. Risk to life from storms and high water can be mitigated. NPS would allow the existing housing facilities in Everglades City to be replaced with a single 4-unit structure at BICY, approximately 6 miles away.

The replacement of housing facilities and infrastructure would not expand beyond currently disturbed areas. The design of the new structure would incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood-Prone Areas (44 CFR section 60.3) and in accordance with local, county or state requirements for flood-prone areas. The proposed structure would be designed for resilience against future severe storm and flooding events.

Therefore, the National Park Service finds that the proposed action would not have any additional adverse impacts on floodplains and their associated values.

REFERENCES

Federal Emergency Management Agency, National Flood Hazard Layer. Digital elevation data accessed December, 2019. <https://www.fema.gov/national-flood-hazard-layer-nfhl>

National Park Service, 2002. Procedural Manual 77-2: Floodplain Management. Washington Office, Washington, D.C.

National Park Service, 2003. Director's Order 77-2: Floodplain Management. Washington Office, Washington, D.C.

National Park Service, 2006. Executive Order 11988, "Floodplain Management" (May 28, 1980). Executive Order of the President of the United States.

US Geological Survey. The National Map: 3DEP Elevation Program. Digital elevation data accessed December, 2019. <https://www.usgs.gov/core-science-systems/national-geospatial-program/national-map>