

APPENDIX A

Project Correspondence

**Turpentine Run, St. Thomas, U.S. Virgin Islands Study
Section 205 Flood Risk Reduction
Continuing Authorities Program (CAP) Conversion
Draft Environmental Assessment**



**US Army Corps of Engineers
JACKSONVILLE DISTRICT**

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BLVD
JACKSONVILLE, FL 32207-8915

Planning and Policy Division
Environmental Branch

FEB 19 2019

To Whom It May Concern:

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the proposed Finding of No Significant Impact (FONSI) and draft Environmental Assessment (EA) for the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion. The purpose of the project is to reduce flood damage to the Nadir development along Turpentine Run. The proposed 1994 Recommended Plan consists of the following:

- 460-foot long concrete "U" shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.

The proposed FONSI, draft EA, and associated appendices are available for your review on the Jacksonville District's Environmental planning website, under U.S. Virgin Islands:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

Questions or comments can be submitted to Kristen Donofrio at the letterhead address, or via email to Kristen.L.Donofrio@usace.army.mil within 60 days from the date of this Notice of Availability. Ms. Donofrio may also be reached by telephone at 904-232-2918.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason J. Spinning".

Jason J. Spinning
Acting Chief, Environmental Branch



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 San Marco Boulevard
JACKSONVILLE, FLORIDA 32207-8175

REPLY TO
ATTENTION OF

Planning and Policy Division
Environmental Branch

FEB 19 2019

Honorable Jean-Pierre Oriol
Commissioner, Department of Planning and Natural Resources
Cyril E. King Airport Terminal Bldg., 2nd Floor
St. Thomas, VI 00802

Dear Mr. Oriol:

Pursuant to the National Environmental Policy Act (42 U.S.C. §4321 *et seq.*), Coastal Zone Management Act of 1972 (16 U.S.C. §1451 *et seq.*), and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the Proposed Finding of No Significant Impact (FONSI), draft Environmental Assessment (EA), and Federal Consistency Determination (FCD) for the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion. Enclosed with this letter is the U.S. Army Corps of Engineers, Jacksonville District (Corps) FCD for the project. The purpose of the project is to reduce flood damage to the Nadir development along Turpentine Run. The proposed 1994 Recommended Plan consists of the following:

- 460-foot long concrete "U" shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.

Additional information, including a copy of the draft EA and associated appendices, is available for review on the Corps' environmental planning website, under U.S. Virgin Islands. For your convenience, the website link is:
<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

The Corps has determined that the proposed federal action is consistent with the findings, goals, and policies of the U.S. Virgin Islands Coastal Zone Management Program. The Corps respectfully requests a letter of concurrence with our FCD within 60 days of the date of this letter.

If you have any questions, or need additional information, please contact Kristen Donofrio by email Kristen.L.Donofrio@usace.army.mil or telephone 904-232-2918. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason J. Spinning". The signature is stylized and cursive, with a large initial "J" and "S".

Jason J. Spinning
Acting Chief, Environmental Branch

Enclosure

**U.S. Virgin Islands Coastal Zone Management Program
Federal Consistency Determination**

**TURPENTINE RUN ST. THOMAS, U.S. VIRGIN ISLANDS STUDY
SECTION 205 FLOOD RISK REDUCTION CONTINUING AUTHORITIES PROGRAM
(CAP) CONVERSION
FEBRUARY 2019**

In accordance with Section 307 of the Federal Coastal Zone Management Act (CZMA) of 1972 and the U.S. Virgin Islands (USVI) CZMA of 1978, the U.S. Army Corps of Engineers, Jacksonville District, (Corps) has determined that the proposed federal action is consistent with the findings, goals, and policies of the USVI Coastal Zone Management Program (CZMP).

Project Location

The study area is within Nadir development along Turpentine Run, located on the southeastern end of the island of St. Thomas, USVI. Turpentine Run is the largest watershed on St. Thomas. Nadir is a completely developed urban area. Turpentine Run in Nadir is an existing concrete channel with insufficient capacity to contain flood flows resulting in regular flooding of the developed area (see **Figures 1 and 2**).

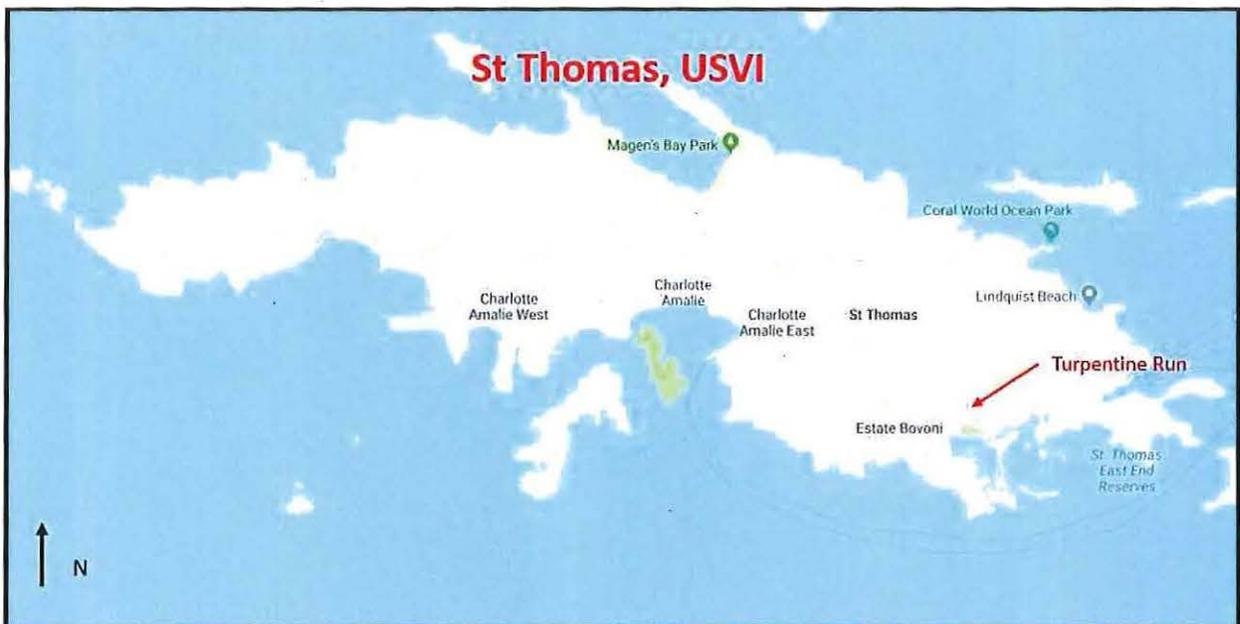


Figure 1. Project vicinity map.



Figure 2. Turpentine Run Section 205 project location (zoomed in).

Recommended Plan

The proposed 1994 Recommended Plan (see **Figure 3**) consists of the following:

- 460-foot long concrete “U” shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.



Figure 3. Turpentine Run Section 205 project features.

Additional information, including a copy of the draft Environmental Assessment and associated appendices, is available for review on the Corps' environmental planning

website, under U.S. Virgin Islands. For your convenience, the website link is: <http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

Consistency with Findings, Goals, and Policies of the USVI CZMP:

903(b) Findings and Goals.

- (1) *Protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the Virgin Islands;*

RESPONSE: The Recommended Plan is designed to protect, maintain, and/or preserve natural and man-made resources to the maximum extent practicable.

- (2) *Promote economic development and growth in the coastal zone and consider the need for development of greater than territorial concern by managing: (1) the impacts of human activity and (2) the use and enhance the long-term productivity of the coastal environment.*

RESPONSE: The Recommended Plan is designed to protect existing residential and commercial development.

- (3) *Assure priority for coastal-dependent development over other development in the coastal zone by reserving areas suitable for commercial uses including hotels and related facilities, industrial uses including port and marine facilities, and recreation uses.*

RESPONSE: The Recommended Plan will have no effect on development or commercial uses of land as described by this goal. Implementation of the Recommended Plan will result in the loss of the Nadir neighborhood park; however, to offset this loss a replacement park will be constructed. The park will be constructed in the vicinity of the racetrack and includes features such as nature walks, picnic pavilion with tables and board games, running water, security lighting, parking, and a multipurpose lighted court. The park facilities would be arranged so that they did not disrupt the current land use in the racetrack area.

- (4) *Assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the Virgin Islands.*

RESPONSE: The Recommended Plan is designed to protect, maintain, and/or preserve natural and man-made resources to the maximum extent practicable and takes into account the social and economic needs of the residents of the USVI.

(5) *Preserve, protect, and maintain the trustlands and other submerged and filled lands of the Virgin Islands so as to promote the general welfare of the people of the Virgin Islands.*

(6) RESPONSE: The Recommended Plan is designed to protect existing residential and commercial development which will promote the general welfare of the people of the USVI.

(7) *Preserve what has been a tradition and protect what has become a right of the public by insuring that the public, individually and collectively, has and shall continue to have the right to use and enjoy the shorelines and to maximize public access to and along the shorelines consistent with constitutionally protected rights of private property owners;*

RESPONSE: The Recommended Plan will not affect access or use of shorelines.

(8) *Promote and provide affordable and diverse public recreational opportunities in the coastal zone for all residents of the Virgin Islands through acquisition, development, and restoration of areas consistent with sound resource conservation principles;*

RESPONSE: Implementation of the Recommended Plan will result in the loss of the Nadir neighborhood park; however, to offset this loss a replacement park will be constructed. The park will be constructed in the vicinity of the racetrack and includes features such as nature walks, picnic pavilion with tables and board games, running water, security lighting, parking, and a multipurpose lighted court. The park facilities would be arranged so that they did not disrupt the current land use in the racetrack area.

(9) *Conserve ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the function and integrity of reefs, marine meadows, salt ponds, mangroves, and other significant natural areas;*

RESPONSE: The Recommended Plan may affect wetlands, and mitigation may be necessary. The project design minimizes the destruction, loss, and/or degradation of wetlands and preserves and enhances the natural and

beneficial values of wetlands. If impacts to wetlands require mitigation, a plan will be developed, proposed, and refined during the project's Preconstruction Engineering and Design (PED) phase. The Corps and its contractors commit to avoiding, minimizing, and mitigating for adverse effects during construction activities. The Recommended Plan will be located in an existing, developed area. Effects to marine resources are not anticipated.

- (10) *Maintain or increase coastal water quality through control of erosion, sedimentation, run-off, siltation, and sewage discharge;*

RESPONSE: The purpose of the project is to reduce flood damages to the Nadir development along Turpentine Run. Implementation of the project may result in decreased erosion and improved water quality. Utilities located in the project footprint may be replaced or relocated.

- (11) *Consolidate the existing regulatory controls applicable to uses of land and water in the coastal zone into a single unified process consistent with the provisions of this Chapter, and coordinate therewith the various regulatory requirements of the United States government.*

RESPONSE: Pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. §4321 *et seq.*) (NEPA), the Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

- (12) *Promote public participation in decision affecting coastal planning conservation and development.*

RESPONSE: Pursuant to NEPA, the Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

906(a) Specific Policies Applicable to the First Tier of the Coastal Zone: Development Policies

- (1) *To guide new development to the maximum extent feasible into locations with, contiguous with, or in close proximity to existing developed sites and into areas with adequate public services; and to well-planned, self-sufficient, development in other suitable areas where it will have no significant adverse effect, individually or cumulatively, on coastal zone resources;*

RESPONSE: The Recommended Plan will be located in an existing, developed area.

- (2) *To give highest priority to water dependent uses, particularly in those areas suitable for commercial uses including resort hotels and related facilities, industrial uses including port and marine facilities, and recreation; to give secondary priority to these uses that are water-related or have special siting needs; and to discourage uses which are neither water dependent, water-related nor have special siting needs in areas suitable for the highest and secondary priority uses;*

RESPONSE: The Recommended Plan does not include construction or development as described by this policy.

- (3) *To assure that new or expanded public capital improvement projects will be designed to accommodate those needs generated by development or uses permitted consistent with the Coastal Land and Water Use Plan and provisions of this Chapter;*

RESPONSE: The Recommended Plan does not include construction or development as described by this policy.

- (4) *To assure that all new subdivisions, in addition to the other requirements contained in this Chapter and in the Virgin Islands Zoning and Subdivision Law, are physically suitable for the proposed sites and are designed and improved so as to avoid causing environmental damage or problems of public health;*

RESPONSE: The Recommended Plan does not include construction or development as described by this policy.

- (5) *To encourage waterfront redevelopment and renewal in developed harbors in order to preserve and improve physical and visual access to the waterfront from residential neighborhoods and commercial downtown areas;*

RESPONSE: The Recommended Plan will not result in effects as described by this policy.

- (6) *To assure that development will be sited and designed to protect views to and along the sea and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas;*

RESPONSE: The Recommended Plan does not include construction or development as described by this policy.

- (7) *To encourage fishing and carefully monitor mariculture and, to the maximum extent feasible, to protect local fishing activities from encroachment by non-related development;*

RESPONSE: The Recommended Plan will have no effect on fishing and/or mariculture.

- (8) *To assure that dredging filling of submerged lands is clearly in the public interest and to ensure that such proposals are consistent with specific marine environment policies contained in this Chapter. To these ends, the diking, filling or dredging of coastal waters, salt ponds, lagoons, marshes, or estuaries may be permitted in accordance with other applicable provisions of this Chapter only where there are no feasible, less environmentally-damaging alternatives and where feasible, mitigation measures have been provided to minimize adverse environmental effects, and in any event shall be limited to the following: (i) maintenance dredging required for existing navigational channels, vessel berthing and mooring areas; (ii) incidental public service purposes, including but not limited to the burying of cables and pipes, the inspection of piers, and the maintenance of existing intake and outfall lines; (iii) new or expanded port, oil, gas and water transportation, and coastal dependent industrial uses, including commercial fishing facilities, cruise ship facilities, and boating facilities and marinas; (iv) except as restricted by federal law, mineral extraction, including sand, provided that such extraction shall be prohibited in significant natural areas; and (v) restoration purposes;*

RESPONSE: Dredging is not a component of the Recommended Plan.

- (9) *To the extent feasible, discourage further growth and development in flood-prone areas and assure that development in these areas is so designed as to minimize risks to life and property;*

RESPONSE: The purpose of the project is to reduce flood damages to the Nadir development along Turpentine Run; however, the Recommended Plan does not include construction or development as described by this policy.

- (10) *To comply with all other applicable laws, rules, regulations, standards and criteria of public agencies.*

RESPONSE: Pursuant to NEPA, the Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

906(b) Specific Policies Applicable to the First Tier of the Coastal Zone: Environmental Policies

- (1) *To conserve significant natural areas for their contributions to marine productivity and value as habitats for endangered species and other wildlife;*

RESPONSE: The Recommended Plan may affect wetlands, and mitigation may be necessary. The project design minimizes the destruction, loss, and/or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands. If impacts to wetlands require mitigation, a plan will be developed, proposed, and refined during the project's PED phase. The Corps and its contractors commit to avoiding, minimizing, and mitigating for adverse effects during construction activities. Pursuant to the Endangered Species Act of 1973 (16 U.S.C. §1531 *et seq.*) (ESA), the project was coordinated with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) through the 1994 EA and will be coordinated again during the public review of the 2019 NEPA document. Pursuant to NEPA, the Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

- (2) *To protect complexes of marine resource systems of unique productivity, including reefs, marine meadows, salt ponds, mangroves and other natural systems, and assure that activities in or adjacent to such complexes are designed and carried out so as to minimize adverse effects on marine productivity, habitat value, storm buffering capabilities, and water quality of the entire complex;*

RESPONSE: The Recommended Plan will be located in an existing, developed area. Effects to marine resources are not anticipated. The Recommended Plan is designed to protect, maintain, and/or preserve natural and man-made resources to the maximum extent practicable. The Recommended Plan may affect wetlands, and mitigation may be necessary. The project design minimizes the destruction, loss, and/or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands. If impacts to wetlands require mitigation, a plan will be developed, proposed, and refined during the project's PED phase. The Corps and its contractors commit to avoiding, minimizing, and mitigating for adverse effects during construction activities.

- (3) *To consider use impacts on marine life and adjacent and related coastal environment;*

RESPONSE: The Recommended Plan will be located in an existing, developed area. Effects to marine resources are not anticipated. The Recommended Plan is designed to protect, maintain, and/or preserve natural resources to the maximum extent practicable. Pursuant to the NEPA, an EA has been prepared to assess the effects of the Recommended Plan on existing resources. The Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

- (4) *To assure that siting criteria, performance standards, and activity regulations are stringently enforced and upgraded to reflect advances in related technology and knowledge of adverse effects on marine productivity and public health;*

RESPONSE: The Recommended Plan will be located in an existing, developed area. Effects to marine resources are not anticipated. Pursuant to the NEPA, an EA has been prepared to assess the effects of the Recommended Plan on existing resources. The Recommended Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process. All applicable authorizations will be obtained prior to the start of construction.

- (5) *To assure that existing water quality standards for all point source discharge activities are stringently enforced and that the standards are continually upgraded to achieve the highest possible conformance with federally-promulgated water quality criteria;*

RESPONSE: Pursuant to Section 401 of the Clean Water Act of 1972, as amended, water quality certification (WQC) will be obtained from the USVI prior to construction, if required. If a WQC certification is required, conditions imposed by the WQC will be implemented in order to minimize adverse impacts to water quality.

- (6) *To preserve and protect the environments of offshore islands and cays;*

RESPONSE: The Recommended Plan will be located in an existing, developed area and will not affect offshore islands and cays.

- (7) *To accommodate offshore sand and gravel mining needs in areas and in ways that will not adversely affect marine resources and navigation. To this end, sand, rock, mineral, marine growth and coral (including black coral), natural materials, or other natural products of the sea, excepting fish and wildlife, shall not be taken from the shorelines without first obtaining a coastal*

zone permit, and no permit shall be granted unless it is established that such materials or products are not otherwise obtainable at reasonable cost, and that the removal of such materials or products will not significantly alter the physical characteristics of the area or adjacent areas on an immediate or long term basis; or unless the Commission has determined that a surplus of such materials or products exists at specifically designated locations;

RESPONSE: Offshore sand and gravel mining is not a component of the Recommended Plan.

- (8) *To assure that dredging and disposal of dredged material will cause minimal adverse affects to marine and wildlife habitats and water circulation;*

RESPONSE: Dredging is not a component of the Recommended Plan.

- (9) *To assure that development in areas adjacent to environmentally-sensitive habitat areas, especially those of endangered species, significant natural areas, and parks and recreations areas, is sited and designed to prevent impacts which would significantly degrade such areas;*

RESPONSE: Pursuant to the ESA, the project was coordinated with NMFS and USFWS through the 1994 EA and will be coordinated again during the public review of the 2019 NEPA document. Implementation of the Recommended Plan will result in the loss of the Nadir neighborhood park; however, to offset this loss a replacement park will be constructed. The park will be constructed in the vicinity of the racetrack and includes features such as nature walks, picnic pavilion with tables and board games, running water, security lighting, parking, and a multipurpose lighted court. The park facilities would be arranged so that they did not disrupt the current land use in the racetrack area.

- (10) *To assure all of the foregoing, development must be designed so that adverse impacts on marine productivity, habitat value, storm buffering capabilities and water quality are minimized to the greatest feasible extent by careful integration of construction with the site. Significant erosion, sediment transport, land settlement or environmental degradation of the site shall be identified in the environmental assessment report prepared for or used in the review of the development, or described in any other study, report, test results or comparable documents.*

RESPONSE: Pursuant to the NEPA, an EA has been prepared to assess the effects of the Recommended Plan on existing resources. The Recommended

Plan will be coordinated with Federal and local government agencies as well as other interested parties and the public during the planning process.

906(c) Specific Policies Applicable to the First Tier of the Coastal Zone: Amenity Policies

- (1) *To protect and, where feasible or appropriate, enhance and increase public coastal recreational uses, areas and facilities;*

RESPONSE: Implementation of the Recommended Plan will result in the loss of the Nadir neighborhood park; however, to offset this loss a replacement park will be constructed. The park will be constructed in the vicinity of the racetrack and includes features such as nature walks, picnic pavilion with tables and board games, running water, security lighting, parking, and a multipurpose lighted court. The park facilities would be arranged so that they did not disrupt the current land use in the racetrack area.

- (2) *To protect and enhance the characteristics of those coastal areas which are most valued by the public as amenities and which are scarce, or which would be significantly altered in character by development, or which would cause significant environmental degradation if developed;*

RESPONSE: The Recommended Plan is designed to protect, maintain, and/or preserve natural and man-made resources to the maximum extent practicable.

- (3) *To preserve agricultural land uses in the coastal zone by encouraging either maintenance of such present agricultural use or use as open space areas;*

RESPONSE: The Recommended Plan will not affect agricultural lands.

- (4) *To incorporate visual concern into the early stages of the planning and design of facilities proposed by siting in the coastal zone and, to the extent feasible, maintain or expand visual access to the coastline and coastal waters;*

RESPONSE: The Recommended Plan will have no effect on visual aesthetics or visual access to the coastline and coastal waters.

- (5) *To foster, protect, improve, and ensure optimum access to, and recreational opportunities at, the shoreline for all the people consistent with public rights, constitutionally-protected rights of private property owners, and the need to protect natural resources from overuse;*

RESPONSE: The Recommended Plan will have no effect on access or recreational opportunities at the shoreline.

- (6) *To ensure that development will not interfere with the public's right of access to the sea where acquired through customary use, legislative authorization or dedication including without limitation the use of beaches to the landward extent of the shoreline;*

RESPONSE: The Recommended Plan will have no effect on the public's access to the sea or use of beaches to the landward extent of the shoreline.

- (7) *To require, in the discretion of the appropriate Committee of the Commission, that public access from the nearest public roadway to the shoreline be dedicated in land subdivisions or in new development projects requiring a major coastal zone permit. Factors to be considered in requiring such dedication of public access include (i) whether it is consistent with public safety or protection of fragile coastal zone resources; (ii) whether adequate public access exists nearby; (iii) whether existing or proposed uses or development would be adversely affected; (iv) consideration of the type of shoreline and its appropriate potential recreational, educational, and scientific uses; and (v) the likelihood of trespass on private property resulting from such access and availability of reasonable means for avoiding such trespass. Dedicated accessways shall not be required to be open to public use until a public agency or private association agrees to accept responsibility for providing off-street parking areas and for maintenance and liability of the accessway, shoreline and beach areas. Nothing in this subsection shall be construed as restricting existing public access nor shall it excuse the performance of duties and responsibilities of public agencies as provided by law to acquire or provide public access to the shoreline. This provision shall not be construed as requiring free use of private facilities on land adjoining any beach or shoreline but only as requiring access to the beach or shoreline to the general public as a condition precedent to the grant of a coastal zone permit.*

RESPONSE: The Recommended Plan will be located in an existing, developed area, will have no effect on the public's access to the coast, and does not require or include construction or development as described by this policy.



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BLVD
JACKSONVILLE, FL 32207-8915

Planning and Policy Division
Environmental Branch

FEB 19 2019

Edwin Muñiz
Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
Road 301 Km 5.1
Boquerón, Puerto Rico 00622

Dear Mr. Muñiz:

Pursuant to Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Army Corps of Engineers, Jacksonville District (Corps), respectfully requests a letter of concurrence from the U.S. Fish and Wildlife Service (USFWS) for the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion. The purpose of the project is to reduce flood damage to the Nadir development along Turpentine Run. The proposed 1994 Recommended Plan consists of the following:

- 460-foot long concrete "U" shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.

The Corps has determined that the proposed project may affect, but is not likely to adversely affect (MANLAA) the Virgin Island tree boa (*Epicrates monensis granti*). Included with this letter is additional information describing the project background, project location and proposed action, potential effects to boas, and efforts to eliminate/avoid impacts. Additionally, a copy of the draft Environmental Assessment and associated appendices, is available for review on the Corps' environmental planning website, under U.S. Virgin Islands. For your convenience, the website link is: <http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

The Corps respectfully requests that the USFWS provide a letter of concurrence to the Corps' MANLAA effect determination within 30 days of the receipt of this letter. If you have any questions, or need additional information, please contact Kristen Donofrio by email Kristen.L.Donofrio@usace.army.mil or telephone 904-232-2918. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Spinning", is written over the typed name and title.

Jason J. Spinning
Acting Chief, Environmental Branch

Enclosure

Turpentine Run St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion

In order to comply with Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Army Corps of Engineers, Jacksonville District (Corps), respectfully requests a letter of concurrence within 30 days of the date of this letter from the U.S. Fish and Wildlife Service (USFWS) on the Turpentine Run St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion. The Corps has determined that the proposed project may affect, but is not likely to adversely affect the Virgin Islands tree boa (*Epicrates monensis granti*).

Pursuant to our request, the Corps is providing the following information:

- Project Background;
- Project Location;
- Recommended Plan;
- Listed Species Under USFWS Jurisdiction;
- Potential Effects to Listed Species and Efforts to Eliminate/Avoid Impacts;
and
- Corps' Effect Determination.

Project Background

The Turpentine Run Section 205 project was initially authorized under Continuing Authorities Program (CAP), Section 205 of the Flood Control Act of 1948 Public Law 80-858, as amended. No construction of this previously authorized Federal project has been initiated or completed due to the cost exceeding the statutory CAP funding limitations. The project is now being planned under the authority of Section 209 of the Flood Control Act of 1966, Public Law 89-789, authorizing studies for flood control in the United States and its territories. Division B, Subdivision 1, Title IV of the Bipartisan Budget Act (BBA) of 2018 (Public Law 115-123) authorizes the Corps to conduct the Study at full Federal expense to the extent that appropriations provided under the investigations heading of the 2018 BBA are available and used for such purpose.

The purpose of the project is to reduce flood damage to the Nadir development along Turpentine Run. An existing concrete channel carries Turpentine Run past the developed area; however, the capacity of the channel is insufficient to carry flood flows, thereby causing flooding in the Nadir development. Flash floods from intense thunderstorms are a common event affecting this area and can occur anytime during the year. Effects from Hurricane Maria, which hit the island in September 2017, prompted the Corps to include the project for consideration for funding under the BBA.

Project Location

The study area is within Nadir development along Turpentine Run, located on the southeastern end of the island of St. Thomas, USVI. Turpentine Run is the largest watershed on St. Thomas. Nadir is a completely developed urban area. Turpentine

Run in Nadir is an existing concrete channel with insufficient capacity to contain flood flows resulting in regular flooding of the developed area (see **Figures 1 and 2**).

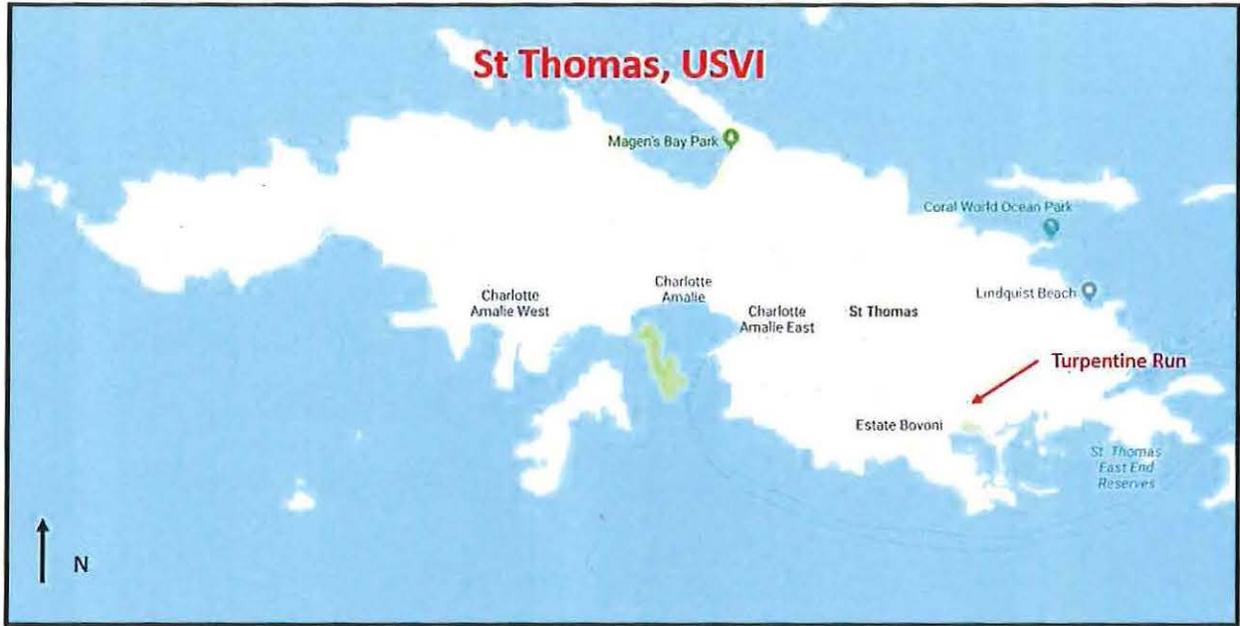


Figure 1. Project vicinity map.



Figure 2. Turpentine Run Section 205 project location (zoomed in).

Recommended Plan

The proposed 1994 Recommended Plan (see **Figure 3**) consists of the following:

- 460-foot long concrete “U” shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.



Figure 3. Turpentine Run Section 205 project features.

Additional information, including a copy of the draft Environmental Assessment and associated appendices, is available for review on the Corps' environmental planning

website, under U.S. Virgin Islands. For your convenience, the website link is:
<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

Listed Species under USFWS Jurisdiction

Listed species which may occur in the vicinity of the proposed work and are under the jurisdiction of the USFWS include the Virgin Islands tree boa (*Epicrates monensis granti*), which is endangered. The Corps has determined the project may affect, not likely to adversely affect the boa.

Corps' Analysis and Effect Determinations on Listed Species under USFWS Jurisdiction:

Virgin Islands tree boa (*Epicrates monensis granti*)

The Virgin Islands tree boa was listed as endangered in 1970 (35 FR 13519). The boas can reach a maximum length of approximately 4 feet and is easily distinguishable from other snakes in its range. An ontogenetic color change occurs between juveniles to adults. Adults are plumbeous brown with darker brown blotches partially edged with black. The dorsal surface has a general blue-purple iridescence. The ventral surface is greyish-brown speckled with darker spots. Juveniles are dorsal color is light grey punctuated with black blotches (USFWS 1986). This boa is semi-arboreal and has an extremely disjunct distribution, likely due to increased predation from the introduction of exotic mammals (e.g. Indian mongoose) as well as habitat destruction from increased development (Department of Planning and Natural Resources 2005). These boas are nocturnal and their diet consists of birds, small mammals, and lizards. The Virgin Islands tree boa is non-venomous and generally harmless unless provoked. No DCH has been identified for this species.

Corps' Effect Determination: MANLAA

Components of construction activities for the Recommended Plan may occur within areas where the Virgin Islands tree boa could be present; however, by utilizing the USFWS Standard Protection Measures for the Virgin Islands tree boa, potential effects to this species can be minimized. Therefore, the Corps has determined that the proposed project may affect, but is not likely to adversely affect Virgin Islands tree boas.

References:

Department of Planning and Natural Resources. 2005. "Comprehensive Wildlife Conservation Strategy for the U.S. Virgin Islands."
https://www.researchgate.net/profile/Floyd_Hayes/publication/299485684_A_Comprehensive_Wildlife_Conservation_Plan_for_the_U_S_Virgin_Islands/links/56fb289808ae1b40b804db5a/A-Comprehensive-Wildlife-Conservation-Plan-for-the-U-S-Virgin-Islands.pdf. Website accessed February 1, 2019.

USFWS. 2018. "Virgin Islands tree boa (*Epicrates monensis granti*).
<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=3247>. Website accessed February 1, 2019.

USFWS. 1986. "Recovery Plan for the Virgin Islands tree boa."
https://ecos.fws.gov/docs/recovery_plan/860327b.pdf. Website accessed February 1,
2019.

CONSERVATION MEASURES FOR THE VIRGIN ISLAND BOA - USFWS

The endangered Virgin Island boa (*Epicrates monensis grantii*), commonly known as VI boa or “Culebrón de la Sabana” by Spanish speakers, is a small, nocturnal, arboreal non-venomous snake native of PR and USVI. The juvenile are a light grey with black blotches, and change to adult coloration as they mature. The body in adults is a light brown, with chestnut blotches edged in black.

They may grow to become 41 inches in length. VI boas are found on the east end of St. Thomas, northeast of Puerto Rico, Culebra Island and on a few offshore cays. They generally live in xeric (dry) habitat, which is characterized by poor rocky soils, in scrub woodland or subtropical dry forest with high density of interdigitating branches and vines connecting adjacent tree canopies. The VI boa can be found crawling in vegetation at night. They can be found also on disturbed vegetation, and may use lower vegetation and artificial structures to travel from one patch to another. In daytime they are usually found under rocks or logs. The VI boa is protected as endangered species pursuant to the Endangered Species Act of 1973, as amended, throughout its range since 1979.



The following conservation measures should be developed and implemented to minimize any possible adverse effects to the species. Although surveys did to detect this species was not found, we recommend the following precautions to prevent impact to any boa which may have been missed or not been present during the survey.

Conservation Measures for Puerto Rico

1. All personnel will be instructed in identifying this harmless snake and photographs of the VI Boa are to be prominently displayed at the site.
2. Prior to any use of machinery on the site, the vegetation should be cleared by hand to the maximum extent possible, cutting vegetation about one meter above the ground.
3. Debris should be piled to the side and left undisturbed to avoid killing snakes hiding in crevices.
4. A biologist should be on site during the initial vegetation removal or debris removal, to ensure safe removal of any snakes in underground burrows, tree trunks, etc.
5. If boas are found within the working area, activities should stop at the area where the boas are found until the boas move out of the area on their own. Construction and activities at other work sites, where no boas have been found may continue. If relocation of the species is necessary, any relocated boas should be transferred by authorized personnel or PR DNER staff to appropriate habitat close to the project site. Any findings should be reported to the Service and to the DNER.

We recommend that the above mentioned conservation measures should be incorporate into the project plans. If you have any question regarding the comments above, please contact Marelisa Rivera, marelisa_rivera@fws.gov, 787 851-7297 x 206.

Conservation Measures for the USVI

1. Contact VI Division of Fish and Wildlife (DFW) (340)775-6762, for consultation.
2. DFW will come out for an onsite discussion. They need a copy of your building plans or at least a narrative of your intended project. DFW will coordinate via email so that all developers, owners, contractors, and other agencies, can follow along and provide input.
3. DFW will conduct a short VI Tree-Boa training session for all individuals conducting hand clearing. This will involve discussions on what to do if a boa is encountered as well as boa identification. This can be done any time prior to hand clearing but is often preformed the first day on site.

4. At least 10 days prior (if under 1 acre) to the use of heavy equipment on the site, the site is to be flagged and vegetation cut by hand, saving trees where possible. Any stone walls or naturally occurring rock piles must be carefully dismantled by hand as these are refuges for the snake. This will allow any boas present to vacate the site without injury. If the area to be cleared exceeds 1 acre then the resting period is 14 days.
5. Only hand clearing is to be performed. This usually allows the use of chainsaws cutting vegetation down to less than 36 inches off the ground.
6. All personnel will be instructed in identifying this harmless snake and photographs of the VI Boa are to be prominently displayed at the site.
7. The Division of Fish and Wildlife (DFW) or an on-site agent should be notified of any snakes observed or captured. If a snake is in imminent danger, the snake can be moved to undisturbed habitat outside the construction area that has been pre-approved by DFW. If no undisturbed habitat exists near the site, the landowner or agent shall identify a suitable release site in collaboration with DFW prior to any vegetation clearance. A permit from DFW under section 2(b) of the Cooperative Agreement will be required for all personnel involved in any snake handling or relocation activities.
8. Another site visit will be performed by DFW to confirm that hand clearing has been completed to our standards. The waiting period clock starts after inspection.
9. The site is to be left undisturbed for the required 10-14 days prior to the use of heavy machinery. However manual work may continue to be performed during this time and any vegetation may be moved by hand.
10. Use of heavy equipment is only permitted to start after the agreed upon date.



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BLVD
JACKSONVILLE, FL 32207-8915

CESAJ-PD-E (ER 200-2-2)

FEB 19 2019

MEMORANDUM FOR THE RECORD

SUBJECT: Coordination Act Report for the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction Continuing Authorities Program (CAP) Conversion.

PURPOSE: To document an informal understanding between the U.S. Army Corps of Engineers, Jacksonville District (Corps), and the U.S. Fish and Wildlife Service (USFWS), Caribbean Ecological Services Field Office.

Background. The Turpentine Run Section 205 project was initially authorized under Continuing Authorities Program (CAP), Section 205 of the Flood Control Act of 1948 Public Law 80-858, as amended. No construction of this previously authorized Federal project has been initiated or completed due to the cost exceeding the statutory CAP funding limitations. The project is now being planned under the authority of Section 209 of the Flood Control Act of 1966, Public Law 89-789, authorizing studies for flood control in the United States and its territories. Division B, Subdivision 1, Title IV of the Bipartisan Budget Act (BBA) of 2018 (Public Law 115-123) authorizes the Corps to conduct the Study at full Federal expense to the extent that appropriations provided under the investigations heading of the 2018 BBA are available and used for such purpose.

Recommended Plan. The proposed 1994 Recommended Plan consists of the following:

- 460-foot long concrete "U" shape channel that transitions to a trapezoidal, earthen channel (1,385 feet long) lined with rip rap;
- Drop structure and 170-foot long sheetpile wall along the developed side of the channel;
- 260-foot levee along the northern edge of Nadir;
- 1,300-foot long levee starting south of the new Bovoni Road Bridge and ending at the Nadir racetrack with rip rap on the left side of the channel as it flows around the corner of the racetrack;
- Interior drainage conveyance from the existing small concrete channel by a 72-inch underground pipe (length of 1,745 feet) which run under the levee footprint and racetrack and ultimately discharge into Mangrove Lagoon.

Construction of the 1994 Recommended Plan will reduce flood damages to the Nadir development along Turpentine Run.

CESAJ-PD-E (ER 200-2-2)

SUBJECT: Coordination Act Report for the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction CAP Conversion.

Coordination. The Fish and Wildlife Coordination (FWCA; 16 U.S.C. 661 et seq., March 10, 1934, as amended 1946, 1958, 1978, and 1995) requires Federal agencies to consult with USFWS regarding project related effects to fish and wildlife resources and proposed measures to avoid, minimize, and/or mitigate unavoidable effects. Additional coordination authorities exist through the review process of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321-4347, January 1, 1970, as amended 1975 and 1982) and the consultations required under the Endangered Species Act of 1973 (ESA; 7 U.S.C. 136, 16 U.S.C. 1531 et seq. December 28, 1973).

The USFWS prepared a Planning Aid Report for the Turpentine Run Section 205 project in 1987. The Planning Aid Report listed the brown pelican (*Pelecanus occidentalis*), peregrine falcon (*Falco peregrinus*), and the Virgin Islands tree boa (*Epicrates monensis granti*) as being potentially present in the project area. The report also describes the presence of a freshwater swamp forest in the project area and recommended avoiding effects to the forest. The Corps incorporated the USFWS recommendations. The project was coordinated with USFWS through the 1994 EA with a no-effect determination for any federally listed endangered or threatened species.

USFWS continues to coordinate and consult with the Corps through NEPA and the ESA in which impacts to fish and wildlife resources are adequately addressed via these two authorities. Funds may be sent to the USFWS during the Preconstruction Engineering and Design (PED) phase to provide support during design refinements. USFWS will include comments relevant to FWCA in the USFWS response to the Corps' ESA coordination letter.

Agreement. The undersigned, the Corps and USFWS, agree to utilize the Turpentine Run, St. Thomas, U.S. Virgin Islands Study Section 205 Flood Risk Reduction CAP Conversion NEPA review and ESA consultation processes to complete coordination responsibilities under the FWCA. This agreement will avoid duplicate analysis and documentation as authorized under 40 CFR section 1500.4 (k), 1502.25, 1506.4, and is consistent with Presidential Executive Order for Improving Regulation and Regulatory Review, released January 18, 2011.

Edwin Muñiz
Field Supervisor
Caribbean Ecological Services Field Office



Jason J. Spinning
Acting Chief, Environmental Branch