APPENDIX B
PERTINENT CORRESPONDENCE

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B.1 Pertinent Correspondence

This appendix contains pertinent correspondence related to the interim operations of the L-28 South culverts S-229A, S-229B, and S-229C and the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and the Section 106 of the National Historic Preservation Act.

B.1.1 Summary of Comments Received in Response to the Public Notice

A NEPA scoping letter was not solicited for the proposed action, however a public notice for this Section 408 request was posted to the Jacksonville District Section 408 website at https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/ on September 22, 2025 for 30 days (Reference public notice 408-SAJ-2024-0186). A notice of availability (NOA) of the public notice was also sent to: (1) Big Cypress National Preserve (BCNP); (2) Everglades National Park (ENP); (3) the State Clearinghouse; (4) the U.S. Fish and Wildlife Service (USFWS); and (5) the U.S. Environmental Protection Agency (USEPA). Comments were requested by October 21, 2025. The Florida State Clearinghouse coordinated review of the public notice. Comments were received from the Florida Department of Environmental Protection (FDEP) which stated that operations of S-229A, S-229B, and S-229C will be reviewed and authorized in a future Comprehensive Everglades Restoration Plan Regulation Act (CERPRA) permit modification. Based on the information submitted, the state of Florida indicated no objections to the proposed action at this time.

The Corps recognizes the obligations that they have to the Miccosukee Tribe of Indians (MTI) and the Seminole Tribe of Florida (STOF) including consultation under the NEPA and Section 106 of the National Historic Preservation Act (NHPA). Pursuant to E.O. 13175, and in consideration of Corps' Trust Responsibilities, the Corps invited the MTI and STOF to participate in government-to-government consultation via correspondence dated September 22, 2025, as part of the Corps' obligation for conditioned coordination. Both the MTI and STOF responded, requesting engagement in technical-staff coordination on the draft interim operations plan. A meeting was held with the MTI on December 8, 2025.

List of Pertinent Correspondence

A list of correspondence included in this appendix is provided below.

List of Public Notice

- September 22, 2025: Public notice posted to Jacksonville District Section 408 website
- September 22, 2025: NOAs of public notice 1) BCNP; (2) ENP; (3) the State Clearinghouse; (4) USFWS; and (5) USEPA.
- Comments received

List of Government-to-Government Coordination Letters

- September 22, 2025: Request for government-to-government consultation to the MTI
- September 22, 2025: Request for government-to-government consultation to the STOF
- October 22, 2025: MTI response.
- October 24, 2025: STOF response

List of ESA Related Correspondence

- December 19, 2025: ESA Informal Consultation letter and supporting documentation

List of WERP Cultural Resources Programmatic Agreement Correspondence

- May 13, 2026: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT

Section 408 Review 408-SAJ-2024-0186; Interim Operations of the L-28 Culverts (S-229A/B/C)

Section 408 Authority: Interested parties are hereby notified that a request for permission to alter a U.S. Army Corps of Engineers (USACE) project pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 408) has been received from the South Florida Water Management District (SFWMD) and is being evaluated by the Jacksonville District. Written comments, including any objections to the proposed alteration, stating reasons for the objection, are being solicited from anyone having an interest in the requested alteration. Section 408 authorizes the Secretary of the Army to grant permission for the alteration or occupation or use of a USACE project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project.

National Environmental Policy Act (NEPA) Requirement: Many proposed alterations to Civil Works projects require a USACE regulatory permit in compliance with Section 10 of the Rivers and Harbors Act (33 USC § 403) and/or Section 404 of the Clean Water Act (33 USC§ 1344) (Section 404/10). However, some proposed alterations do not require a Section 404/10 permit, but must still be reviewed, a decision documented and approved by the USACE in accordance with the NEPA (i.e., 33 CFR Parts 320 and 333) and Section 408 requirements. The Jacksonville District Commander has the authority to approve certain low-impact Section 408 requests in accordance with the delegation of authority contained in Engineer Circular (EC) 1165-2-220, Policy and Procedural Guidance for Processing Requests to Alter U.S. Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408 (10 Sep 2018). This public notice serves to involve the public, State, Tribal and local governments, relevant agencies, and any applicants in the preparing of a NEPA document by offering the public an opportunity to comment on the requestor's proposed project as required by 33 CFR 333. Comments received during the public solicitation period will be considered during the NEPA review and addressed in the NEPA document. Comments are requested 30 days from the date of this public notice.

Proposed Activity: A Section 408 request (**408-SAJ-2024-0186**) has been received from the SFWMD for approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the requestor. Given that the work effort is a modification to existing and future project features, the proposed work would constitute a minor modification as described by 33 U.S.C. 408. If USACE approval is granted, the SFWMD will conduct the proposed activities in accordance with applicable permits and approvals at no cost to the USACE.

Project Location: Miami-Dade County, FL

S-229A: 25.954858, -80.834502
S-229B: 25.877361, -80.841824
S-229C: 25.855768, -80.845298

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of Water Conservation Area (WCA) 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-

229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

Proposed Design: The SFWMD is constructing the three remotely operated, gated culvert structures, S-229A, S-229B, and S-229C. These culverts will be cost-shared with the USACE as they are features of the Western Everglades Restoration Project (WERP), one of the components of the Comprehensive Everglades Restoration Plan (CERP). Current water management operations in the area are governed by the System Operation Manual Volume 4, for the WCAs, Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e. Central Everglades Planning Project Operations Plan 1.0, etc.).

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling to support their preferred alternative, which is currently under consideration for approval by the Corps. The SFWMD's preferred alternative includes the operation of S-229A, S-229B, and S-229C up to peak capacities of 250 cubic feet per second (cfs), 350 cfs, and 400 cfs, respectively, when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

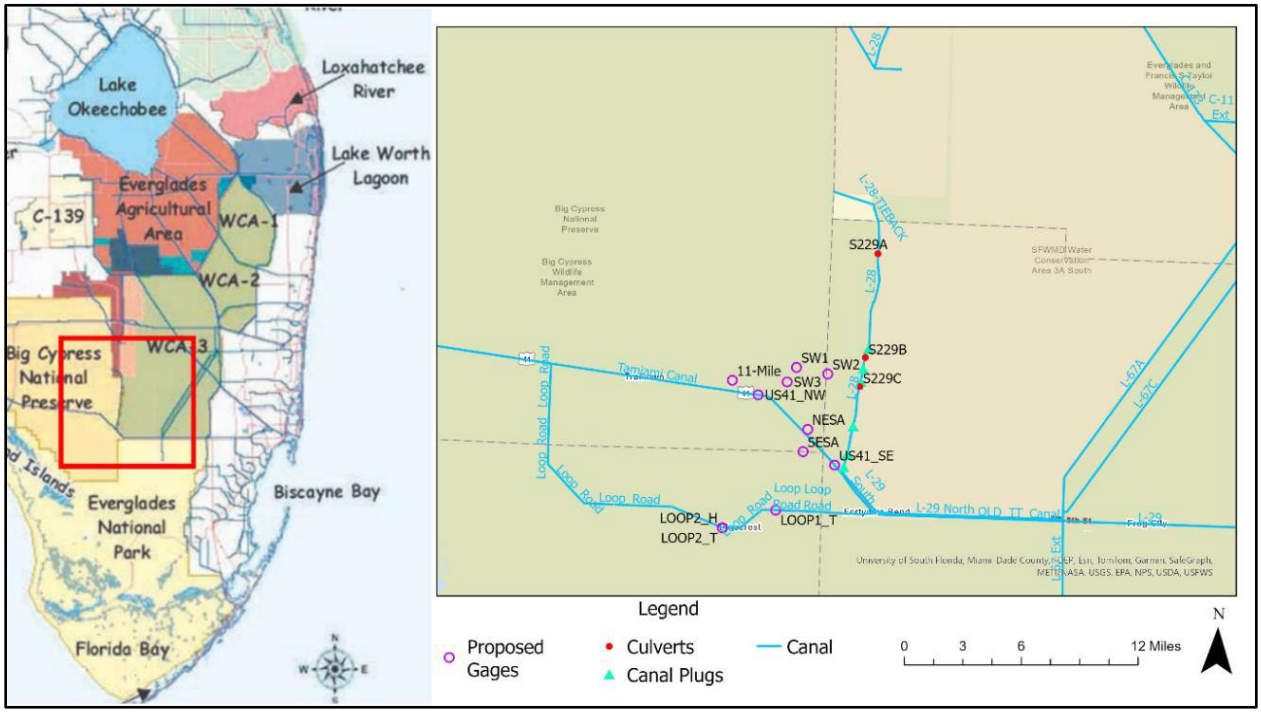
Existing Features: WERP was authorized in the 2024 Water Resources Development Act signed into law on January 4, 2025. Since a Project Partnership Agreement (PPA) between the USACE and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of NEPA as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

Section 408 approval for the construction of S-229A, S-229B, and S-229C was provided to the SFWMD by the USACE's South Atlantic Division on March 15, 2024. The interim operations plan is being submitted for review to comply with the following condition included in the prior Section 408 approval for 408-SAJ-2023-0101 CERP WERP L-28 Culverts (S-229A/B/C):

> *An interim operations plan for these culverts shall be submitted for approval under a separate Section 408 request. Accordingly, S-229A, S-229B, and S-229C shall not be operated for routine operations prior to inclusion of S-229A/B/C in the Corps Water Control Plan and/or USACE approval of a temporary deviation that prescribes operational criteria for S-229A/B/C. Prior to initiating any modification of operations for the pending CERPRA permit by FDEP to SFWMD (#0435441-001), the SFWMD shall pre-coordinate review of the project designs and proposed operations plans with the USACE, Tribes, and applicable State agencies as a 408-approval condition.*

How to Submit Comments: Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Please include "**Section 408 Review 408-SAJ-2024-0186; Interim Operations of the L-28 Culverts (S-229A/B/C)**" in the subject line of your email. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-SP



Enclosure 1. Location of L-28 South Culverts (S-229A, S-229B, and S-299C) Miami-Dade County, Florida

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

Thomas Forsyth
Superintendent
Big Cypress National Preserve
33100 Tamimi Trail East
Ochopee, FL 34141

Dear Thomas Forsyth:

Pursuant to the National Environmental Policy Act (NEPA), this letter constitutes the Notice of Availability of the Public Notice for the review and approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers, Jacksonville District (Corps) is evaluating the interim operational plan pursuant to 33 U.S.C. 408 in response to a request from the SFWMD (i.e., requestor). The SFWMD anticipates a construction completion date of May 2027.

Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e., Central Everglades Planning Project Operations Plan 1.0, etc.). The L-28 South gated culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of WCA 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of their preferred alternative which includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

The Public Notice is available for your review on the Corps' Section 408 Public Notices website: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/. The project number for this project is SAJ-408-2024-0186.

The Corps is requesting that all comments for consideration in the NEPA analysis of this project be submitted within 30 days of the date of this letter. Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-EE

Sincerely,

EHLINGER.GRETCHEN.SARAH.1286927234
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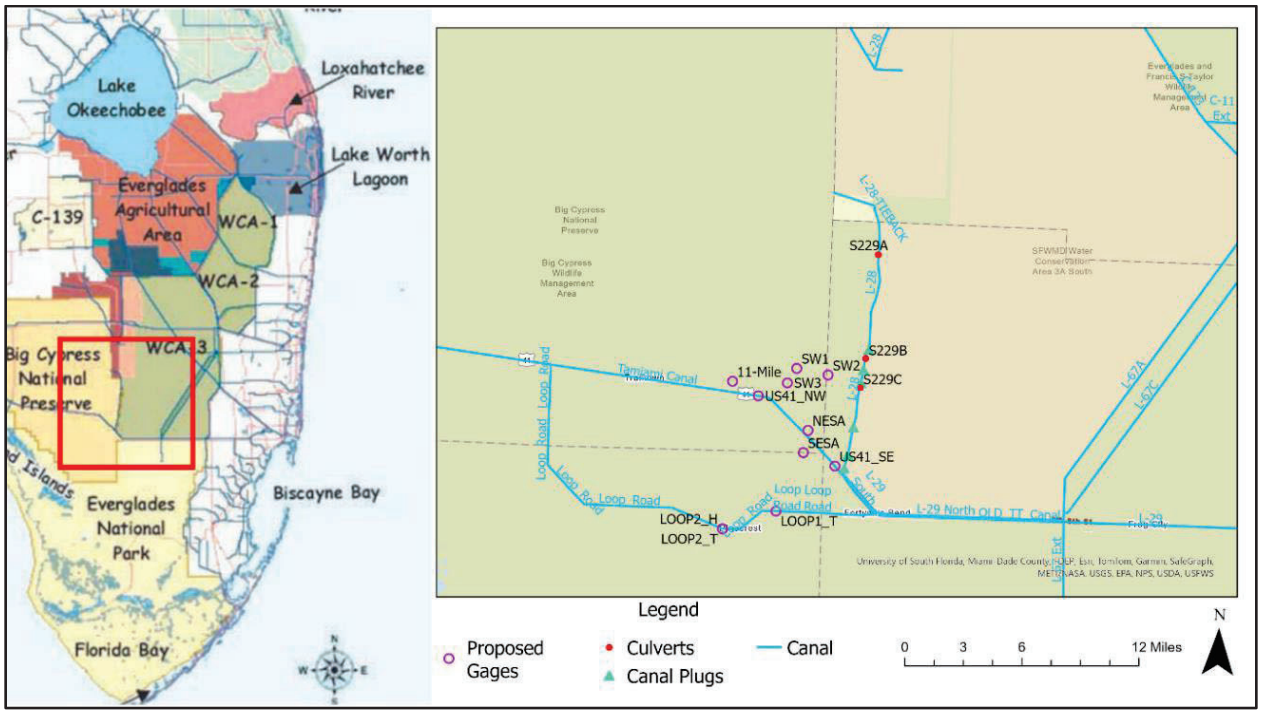
Date: 2025.09.17 10:36:49 -04'00'

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure



Enclosure 1. Location of L-28 South Culverts, Miami-Dade County, Florida

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

Pedro Ramos
Superintendent
Everglades and Dry Tortugas National Parks
40001 State Road 9336
Homestead, FL 33034

Dear Pedro Ramos:

Pursuant to the National Environmental Policy Act (NEPA), this letter constitutes the Notice of Availability of the Public Notice for the review and approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers, Jacksonville District (Corps) is evaluating the interim operational plan pursuant to 33 U.S.C. 408 in response to a request from the SFWMD (i.e., requestor). The SFWMD anticipates a construction completion date of May 2027.

Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e., Central Everglades Planning Project Operations Plan 1.0, etc.). The L-28 South gated culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of WCA 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of their preferred alternative which includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

The Public Notice is available for your review on the Corps' Section 408 Public Notices website: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/. The project number for this project is SAJ-408-2024-0186.

The Corps is requesting that all comments for consideration in the NEPA analysis of this project be submitted within 30 days of the date of this letter. Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-EE

Sincerely,

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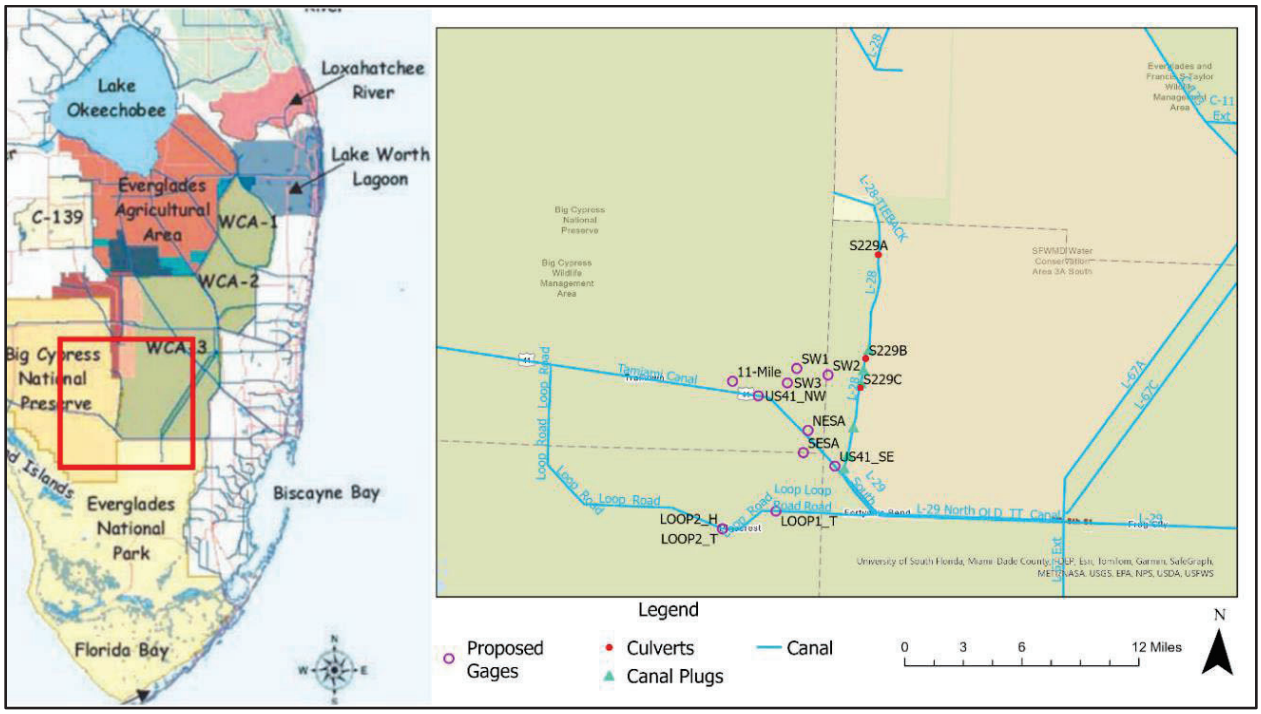
Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

cc:

Melodie Naja, ghinwa_naja@nps.gov



Enclosure 1. Location of L-28 South Culverts, Miami-Dade County, Florida

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

Lindsay Weaver
Florida State Clearing House
Florida Department of Environmental Protection
2600 Blair Stone Road, M.S. 47
Tallahassee, FL 32399-2400

Dear Lindsay Weaver:

Pursuant to the National Environmental Policy Act (NEPA), this letter constitutes the Notice of Availability of the Public Notice for the review and approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers, Jacksonville District (Corps) is evaluating the interim operational plan pursuant to 33 U.S.C. 408 in response to a request from the SFWMD (i.e., requestor). The SFWMD anticipates a construction completion date of May 2027.

Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e., Central Everglades Planning Project Operations Plan 1.0, etc.). The L-28 South gated culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of WCA 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of their preferred alternative which includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

The Public Notice is available for your review on the Corps' Section 408 Public Notices website: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/. The project number for this project is SAJ-408-2024-0186.

The Corps is requesting that all comments for consideration in the NEPA analysis of this project be submitted within 30 days of the date of this letter. Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-EE

Sincerely,

EHLINGER.GRETCHEN.SARAH.1286927234

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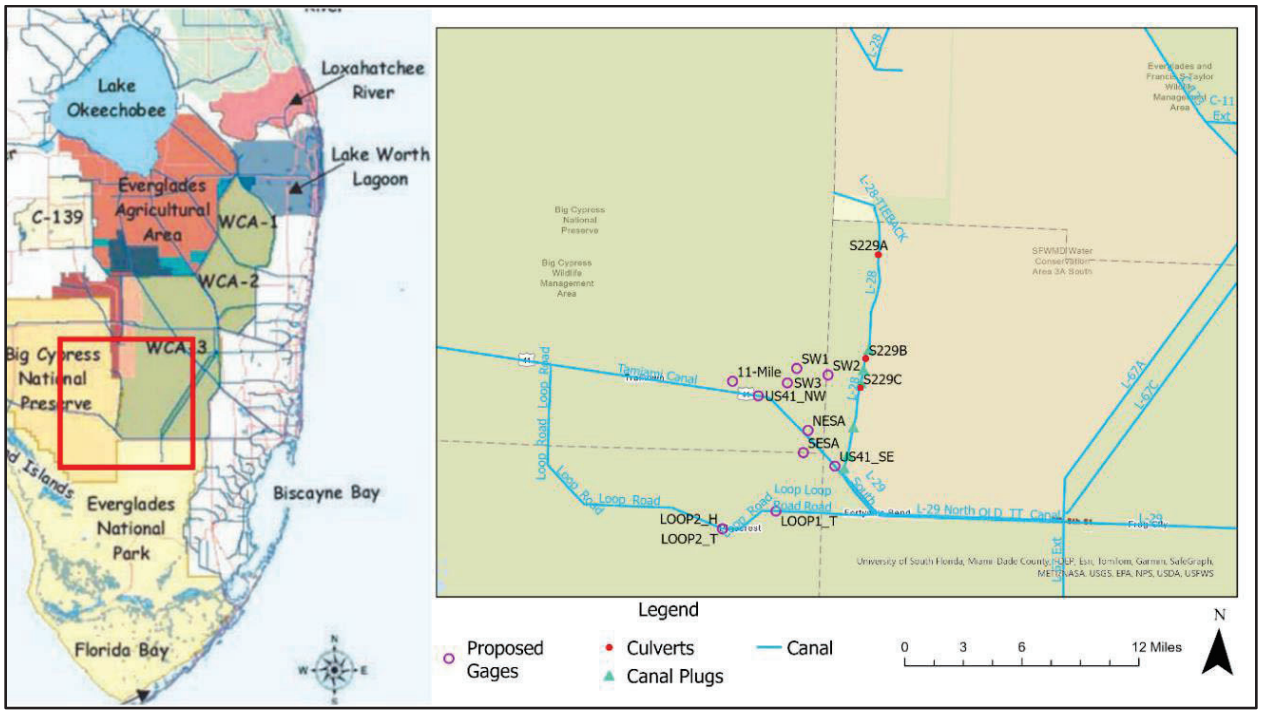
Date: 2025.09.17 10:38:56 -04'00'

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

cc:

State.Clearinghouse@dep.state.fl.us



Enclosure 1. Location of L-28 South Culverts, Miami-Dade County, Florida

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

Larry Williams
State Program Supervisor
Florida Ecological Services Office
777 37th Street, Suite D-101
Vero Beach, FL 32960

Dear Larry Williams:

Pursuant to the National Environmental Policy Act (NEPA), this letter constitutes the Notice of Availability of the Public Notice for the review and approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers, Jacksonville District (Corps) is evaluating the interim operational plan pursuant to 33 U.S.C. 408 in response to a request from the SFWMD (i.e., requestor). The SFWMD anticipates a construction completion date of May 2027.

Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e., Central Everglades Planning Project Operations Plan 1.0, etc.). The L-28 South gated culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of WCA 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of their preferred alternative which includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

The Public Notice is available for your review on the Corps' Section 408 Public Notices website: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/. The project number for this project is SAJ-408-2024-0186.

The Corps is requesting that all comments for consideration in the NEPA analysis of this project be submitted within 30 days of the date of this letter. Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-EE

Sincerely,

EHLINGER.GRETCHEN.SARAH.1286927234

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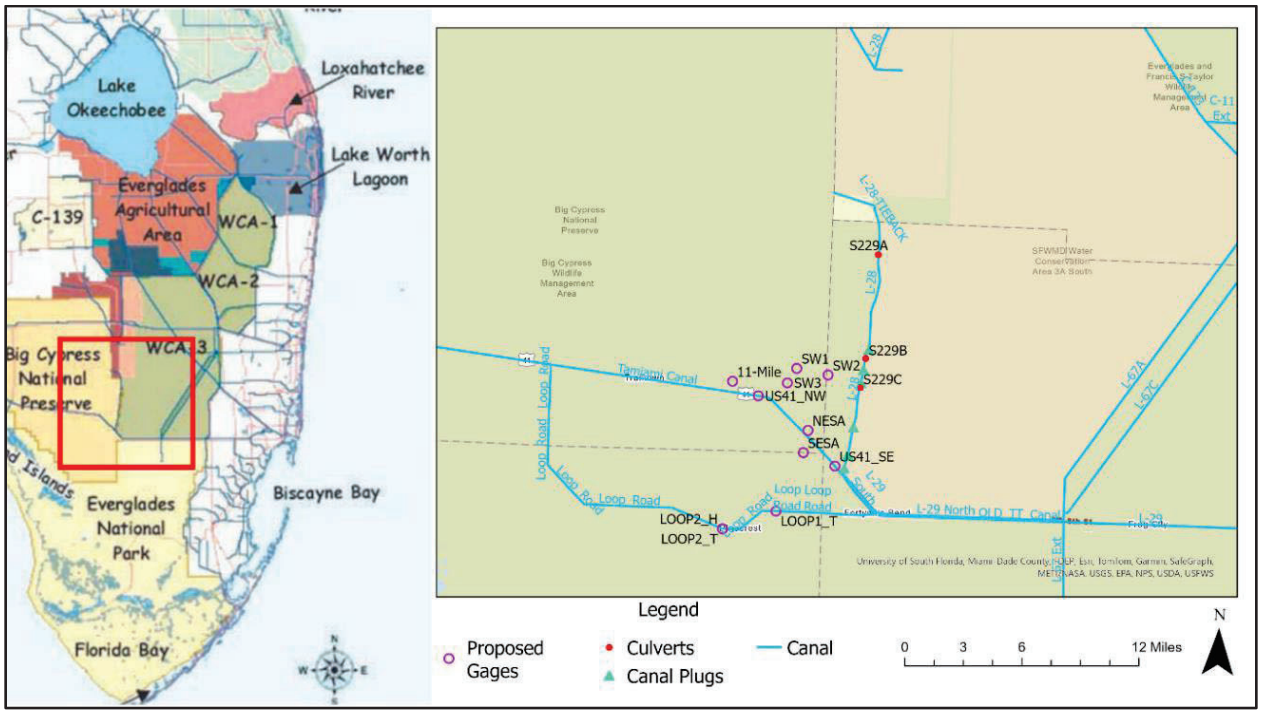
Date: 2025.09.17 10:38:14 -04'00'

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

cc:

Timothy Breen, timothy_breen@fws.gov
Ramon Martin, ramon_martin@fws.gov



Enclosure 1. Location of L-28 South Culverts, Miami-Dade County, Florida

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

Ntale Kajumba
National Environmental Policy Act Section
U.S. Environmental Protection Agency Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Ntale Kajumba:

Pursuant to the National Environmental Policy Act (NEPA), this letter constitutes the Notice of Availability of the Public Notice for the review and approval of the interim operations plan for the L-28 South gated culverts (S-229A, S-229B, and S-229C) that are currently under construction by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers, Jacksonville District (Corps) is evaluating the interim operational plan pursuant to 33 U.S.C. 408 in response to a request from the SFWMD (i.e., requestor). The SFWMD anticipates a construction completion date of May 2027.

Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e., Central Everglades Planning Project Operations Plan 1.0, etc.). The L-28 South gated culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD has not yet been completed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) as appropriate) pursuant to 33 U.S.C. 408 until the PPA is executed.

The L-28 South levee is in the western areas of Broward and Miami-Dade Counties and forms the western boundary of WCA 3A. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively.

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of their preferred alternative which includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints.

The Public Notice is available for your review on the Corps' Section 408 Public Notices website: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/. The project number for this project is SAJ-408-2024-0186.

The Corps is requesting that all comments for consideration in the NEPA analysis of this project be submitted within 30 days of the date of this letter. Written comments may be submitted by email to DLL-CESAJ-Section408PublicNotice@usace.army.mil. Comments may also be submitted by mail to:

U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd
Jacksonville, FL 32207
ATTN: District Section 408 Coordinator, PM-EE

Sincerely,

EHLINGER.GRETCHEN.SARAH.1286927234

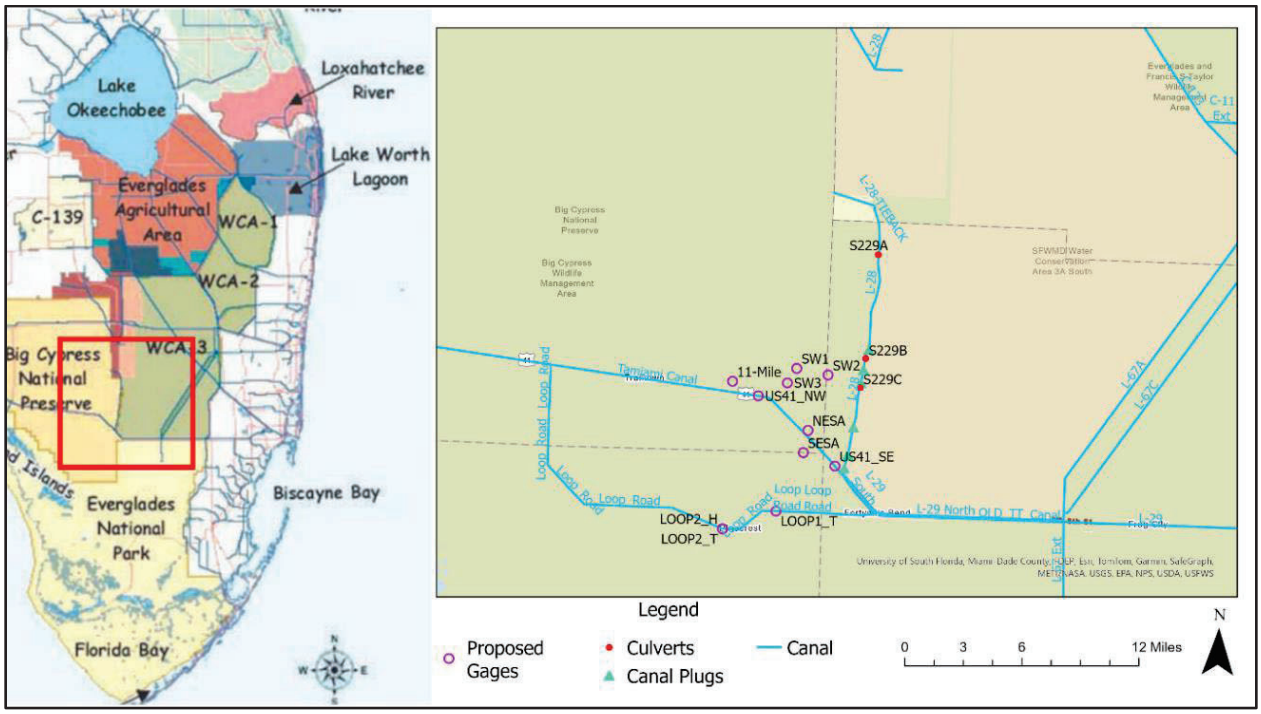
Digitally signed by EHLINGER.GRETCHEN.SARAH.1286927234
Date: 2025.09.17 10:37:48 -04'00'

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

cc:

Veronica Fasselt, Fasselt.Veronica@epa.gov
Douglas White, White.Douglas@epa.gov



Enclosure 1. Location of L-28 South Culverts, Miami-Dade County, Florida

From:	State_Clearinghouse
To:	Nasuti, Melissa A CIV USARMY CESAJ (USA)
Cc:	State_Clearinghouse
Subject:	[Non-DoD Source] NEPA Review Letter for FL202509230581 - Public Notice of Section 408 Review of the Interim Operations Plan for the L-28 South Gated Culverts (S-229A/B/C) in Miami-Dade County, Florida
Date:	Wednesday, October 22, 2025 5:06:00 PM

October 22, 2025

Melissa Nasuti
U.S. Army Corps of Engineers
701 San Marco Blvd.
Jacksonville, Florida 32207

RE: Department of the Army, Jacksonville District Corps of Engineers, Public Notice of Section 408 Review of the Interim Operations Plan for the L-28 South Gated Culverts (S-229A/B/C) in Miami-Dade County, Florida
SAI# FL202509230581

Dear Melissa:

The Florida State Clearinghouse has coordinated the review of the proposed action under the following authorities: Presidential Executive Order 12372; § 403.061(43), Florida Statutes (F.S.); 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.

Staff of the Florida Department of Environmental Protection (Department) reviewed above-referenced Public Notice of Section 408 Review and provided the following comments: The Department issued a CERPRA permit for construction of the L-28 South Gated Culverts S-229A, S-229B, and S-229C (File No.: 0435441-001) on January 12, 2024. Operations of these structures will be reviewed and authorized in a future CERPRA permit modification. Please reach out to Alexander Swann, Senior Permit Lead (Alexander.Swann@FloridaDEP.gov) if you have any questions.

Based on the information submitted, the State of Florida has no objections to the proposed action at this time. Thank you for the opportunity to review and provide comments. If you have any questions or need further assistance, please do not hesitate to contact me.

Sincerely,

Lindsay Weaver

Lindsay Weaver
Florida State Clearinghouse
Office of Intergovernmental Programs
Florida Department of Environmental Protection
State.Clearinghouse@FloridaDEP.gov
Office: 850-717-9037

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

The Honorable Talbert Cypress
Chairman, Miccosukee Tribe of Indians
P.O. Box 440021, Tamiami Station
Miami, Florida 33144

Dear Chairman Cypress:

The U.S. Army Corps of Engineers (Corps) has received a request from the South Florida Water Management District (SFWMD) for the review and approval under 33 U.S. Code Section 408 (Section 408) of the enclosed draft interim operational plan for L-28 South Gated Culverts S-229A, S-229B, and S-229C that are currently under construction. The enclosed documents provide additional details (Section 408 Tracking No. 2024-0186). The purpose of this letter is to initiate government-to-government consultation and staff-level coordination with your Nation to gather information needed to help inform our decision.

The SFWMD anticipates a construction completion date of May 2027 for the L-28 South Gated Culverts. Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan Water Control Plan (WCP). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for them to operate the culverts once construction is completed and prior to the culvert's operations being incorporated into a future WCP (i.e. Central Everglades Planning Project Operations Plan 1.0, etc.).

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support their preferred alternative, which is what is currently under consideration for approval by my staff. Enclosed you will find the SFWMD letter request, pre-application slides summarizing the model results, and their proposed draft interim operations plan up for approval. The tracking number for the Section 408 application is 2024-0186. The public notice will be posted on the following website on September 22, 2025: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/.

The Corps recognizes the sovereign status of federally recognized Tribes and its obligations for pre-decisional government-to-government consultation and/or technical coordination. We also recognize the importance of Tribal Indigenous Knowledge. The information received from your Nation will help to inform the Section 408 review process in accordance with Section 408 implementation guidance EC 1165-2-220.

At this time, I respectfully request government-to-government consultation with you and/or technical staff-level coordination for this federal action under Section 408, as amended, and the National Historic Preservation Act, Section 106 and associated implementing regulations, as amended. In whatever capacity you choose to engage with us, I respectfully request that you provide me with a response within 30 days of receipt of this letter. Please include the names of the Tribal member(s) and/or staff that will represent your Nation and in what capacity, along with any initial comments or concerns related to this action. Ms. Brenda Calvente of my staff will serve as the Section 408 Project Manager for this action. Your staff can direct any questions or request additional information about the L-28 South Gated Culverts to her by telephone at (904) 232-1433 or by email at Brenda.E.Calvente@usace.army.mil. Please also include Brenda on your response to this letter.

I look forward to consulting with you on this proposed action. If you have any questions please contact me, or you or your staff can contact Ms. Cindy Thomas, District Tribal Liaison, by email at Cynthia.G.Thomas@usace.army.mil, or by phone at phone at (918) 581-4200.

Sincerely,

Digitally signed by BOWMAN.BRANDON.L.1033516602
Date: 2025.09.22 14:10:00 -04'00'

Brandon L. Bowman
Colonel, U.S. Army
District Commander

Enclosures

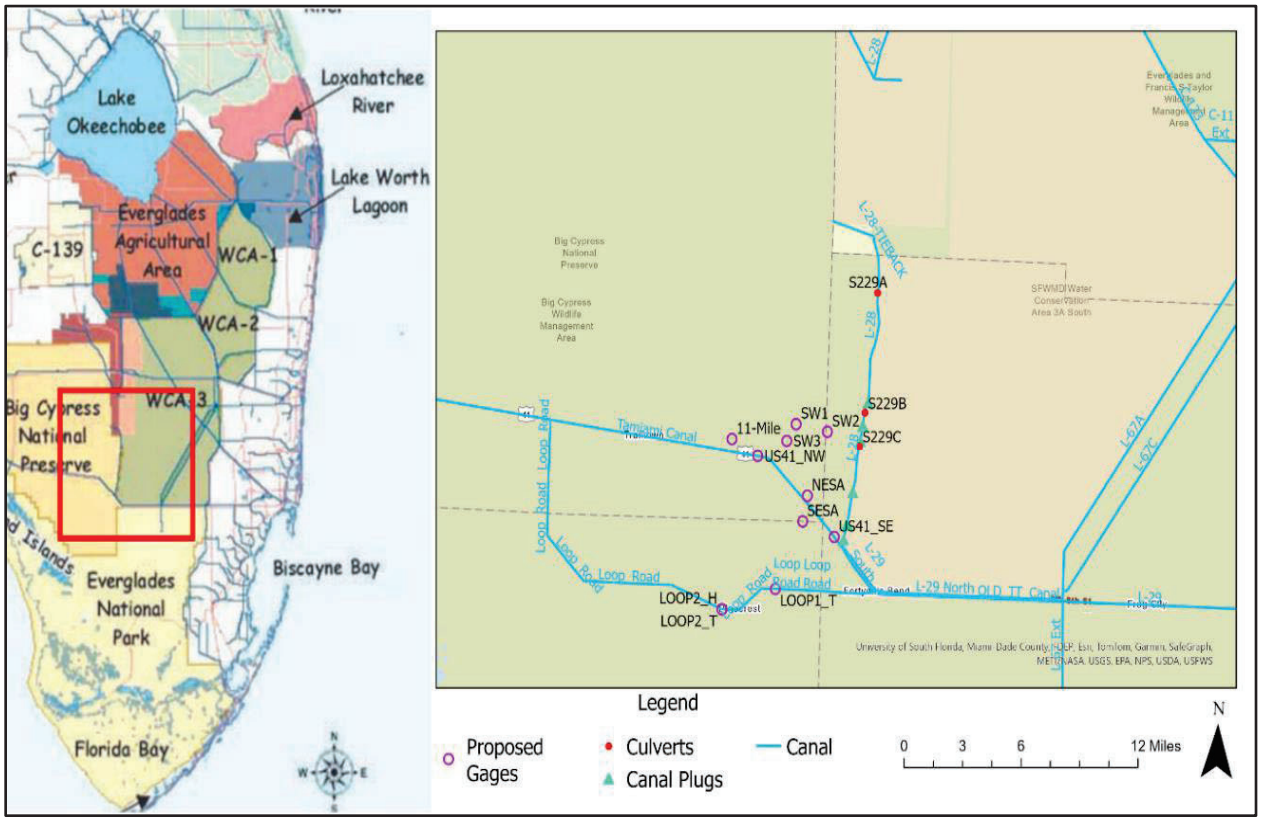
cc:
Mr. Talbert Cypress, Chairman, Miccosukee Tribe of Indians,
TalbertC@miccosukeetribe.com

Ms. Marla Poole, Executive Assistant, Miccosukee Tribe of Indians,
MarlaP@miccosukeetribe.com
Mr. Kevin Cunniff, Chief Sustainability Officer, Miccosukee Tribe of Indians,
KevinC@miccosukeetribe.com
Ms. Amy Castaneda, Water Resources Director, Miccosukee Tribe of Indians,
AmyC@miccosukeetribe.com
Mr. Kevin Donaldson, Land Resources Director, Miccosukee Tribe of Indians,
KevinD@miccosukeetribe.com
Mr. Jason Daniels, Tribal Historic Preservation Office, Miccosukee Tribe of Indians,
JasonD@miccosukeetribe.com
Mr. Marcel Bozas, Fish and Wildlife Director, Miccosukee Tribe of Indians,
MarcelB@miccosukeetribe.com
Mr. Edward Ornstein, Deputy General Counsel, Miccosukee Tribe of Indians,
EdwardO@miccosukeetribe.com
Ms. Jennifer Materi, General Counsel, Miccosukee Tribe of Indians,
JenniferM@miccosuketribe.com
Ms. Audra Locicero, General Counsel Office, Miccosukee Tribe of Indians,
AudraL@miccosukeetribe.com

Additional Information to Support the Section 408 Request

Current water management operations in the area are governed by the System Operation Manual (SOM) Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD anticipates a construction completion date of May 2027 for the L-28 South Gated Culverts. The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e. Central Everglades Planning Project Operations Plan 1.0, etc.).

The SFWMD's preferred alternative includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints. As planned, although the proposed interim operations plan for the L-28 South Gated Culverts would allow additional water to move west into Big Cypress National Preserve under certain conditions, the plan would not allow any additional water to move east of L-28 South (via the S-343A/S-343B gated culverts or the S-12 spillways) outside of what is currently authorized in the COP WCP or the proposed COP Planned Deviation.



Location of L-28 South Culverts

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

September 22, 2025

Planning and Policy Division
Environmental Branch

The Honorable Marcellus Osceola, Jr.
Chairman, Seminole Tribe of Florida
6300 Stirling Road
Hollywood, Florida 33024

Dear Chairman Osceola:

The U.S. Army Corps of Engineers (Corps) has received a request from the South Florida Water Management District (SFWMD) for the review and approval under 33 U.S. Code Section 408 (Section 408) of the enclosed draft interim operational plan for L-28 South Gated Culverts S-229A, S-229B, and S-229C that are currently under construction. The enclosed documents provide additional details (Section 408 Tracking No. 2024-0186). The purpose of this letter is to initiate government-to-government consultation and staff-level coordination with your Nation to gather information needed to help inform our decision.

The SFWMD anticipates a construction completion date of May 2027 for the L-28 South Gated Culverts. Current water management operations in the area are governed by the System Operation Manual Volume 4, for the Water Conservation Areas, Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP). The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for them to operate the culverts once construction is completed and prior to the culvert's operations being incorporated into a future WCP (i.e. Central Everglades Planning Project Operations Plan 1.0, etc.).

The SFWMD Hydrology and Hydraulics Bureau has completed regional hydrologic modeling with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support their preferred alternative, which is what is currently under consideration for approval by my staff. Enclosed you will find the SFWMD letter request, pre-application slides summarizing the model results, and their proposed draft interim operations plan up for approval. The tracking number for the Section 408 application is 2024-0186. The public notice will be posted on the following website on September 22, 2025: https://www.saj.usace.army.mil/Missions/Civil-Works/Section-408/Section-408-Public-Notices/.

The Corps recognizes the sovereign status of federally recognized Tribes and its obligations for pre-decisional government-to-government consultation and/or technical coordination. We also recognize the importance of Tribal Indigenous Knowledge. The information received from your Nation will help to inform the Section 408 review process in accordance with Section 408 implementation guidance EC 1165-2-220.

At this time, I respectfully request government-to-government consultation with you and/or technical staff-level coordination for this federal action under Section 408, as amended, and the National Historic Preservation Act, Section 106 and associated implementing regulations, as amended. In whatever capacity you choose to engage with us, I respectfully request that you provide me with a response within 30 days of receipt of this letter. Please include the names of the Tribal member(s) and/or staff that will represent your Nation and in what capacity, along with any initial comments or concerns related to this action. Ms. Brenda Calvente of my staff will serve as the Section 408 Project Manager for this action. Your staff can direct any questions or request additional information about the L-28 South Gated Culverts to her by telephone at (904) 232-1433 or by email at Brenda.E.Calvente@usace.army.mil. Please also include Brenda on your response to this letter.

I look forward to consulting with you on this proposed action. If you have any questions please contact me, or you or your staff can contact Ms. Cindy Thomas, District Tribal Liaison, by email at Cynthia.G.Thomas@usace.army.mil, or by phone at phone at (918) 581-4200.

Sincerely,

Digitally signed by BOWMAN.BRANDON.L.1033516602
Date: 2025.09.22 14:11:13 -04'00'

Brandon L. Bowman
Colonel, U.S. Army
District Commander

Enclosure

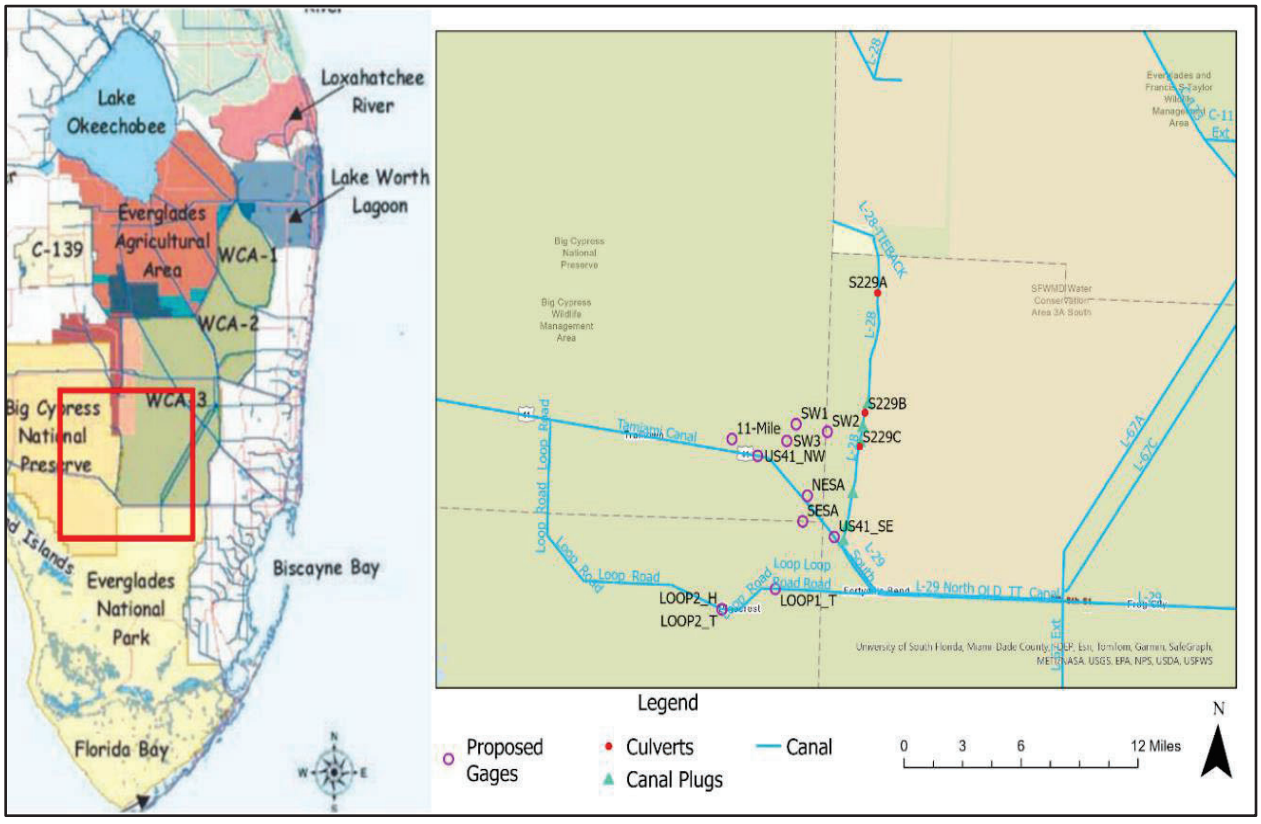
cc:
Mr. Marcellus Osceola, Jr. Chairman, Seminole Tribe of Florida,
MarcellusOsceola@semtribe.com

Ms. Karen Bishop, Executive Assistant, Seminole Tribe of Florida, KarenBishop@semtribe.com
Ms. Holly Tiger, Vice Chairman and TW Board President, Seminole Tribe of Florida, HollyTiger@semtribe.com
Mr. Blake Osceola, Special Projects Administrator, Seminole Tribe of Florida, BlakeOsceola@semtribe.com
Ms. Carlene Osceola, Chairman's Assistant, Seminole Tribe of Florida, CarleneOsceola@semtribe.com
Mr. Elrod Bowers, Chairman's Executive Assistant, Seminole Tribe of Florida, ElrodBowers@semtribe.com
Dr. Paul Backhouse, Sr. Director, Environmental Protection Office, Seminole Tribe of Florida, PaulBackhouse@semtribe.com
Mr. Stacy Myers, Director – External Environmental Compliance Department, Seminole Tribe of Florida, StacyMyers@semtribe.com
Ms. Tina Osceola, Executive Director of Operations and Tribal Historic Preservation Officer, Seminole Tribe of Florida, TinaOsceola@semtribe.com
Mr. Juan Cancel, Assistant Director, Tribal Historic Preservation Office, Seminole Tribe of Florida, JuanCancel@semtribe.com
Ms. Danielle Simon, Tribal Historic Preservation Office, Seminole Tribe of Florida, DanielleSimon@semtribe.com
Seminole Tribe of Florida Tribal Historic Preservation Office, THPOcompliance@semtribe.com
External Environmental Review, Seminole Tribe of Florida, ExternalEnv@semtribe.com
Dr. Craig van der Heiden, Director, Department of Conservation, Seminole Tribe of Florida, CraigVanDerHeiden@semtribe.com
Ms. Whitney Sapienza, Director, Environmental Resources Department, Seminole Tribe of Florida, WhitneySapienza@semtribe.com
Ms. Michelle Diffenderfer, Lewis, Longman, and Walker, MDiffenderfer@llw-law.com
Mr. Stephen Walker, Lewis, Longman, and Walker, SWalker@llw-law.com
Mr. Chris Johns, Lewis, Longman, and Walker, CJohns@llw-law.com
Ms. Telsula Morgan, Lewis, Longman, and Walker, TMorgan@llw-law.com

Additional Information to Support the Section 408 Request

Current water management operations in the area are governed by the System Operation Manual (SOM) Volume 4, for the Water Conservation Areas (WCAs), Everglades National Park (ENP), and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). The SFWMD anticipates a construction completion date of May 2027 for the L-28 South Gated Culverts. The SFWMD is seeking a Section 408 approval of the interim operations plan to allow for operating the culverts once construction is completed and prior to them being incorporated into a WCP (i.e. Central Everglades Planning Project Operations Plan 1.0, etc.).

The SFWMD's preferred alternative includes the operation of S-229A, S-229B, and S-229C when stages in WCA 3A are in Zone A of the Regulation Schedule subject to downstream constraints. As planned, although the proposed interim operations plan for the L-28 South Gated Culverts would allow additional water to move west into Big Cypress National Preserve under certain conditions, the plan would not allow any additional water to move east of L-28 South (via the S-343A/S-343B gated culverts or the S-12 spillways) outside of what is currently authorized in the COP WCP or the proposed COP Planned Deviation.



Location of L-28 South Culverts

Miccosukee Tribe of Indians
Of Florida

Business Council Members
Talbert Cypress, Chairman

Lucas K. Osceola, Assistant Chairman
Kenneth H. Cypress, Treasurer
William J. Osceola, Secretary
Petties Osceola Jr., Lawmaker

October 22, 2025

Colonel Brandon L. Bowman
District Commander
U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Blvd.
Jacksonville, FL 32207

Subject: L-28 South Gated Culverts Draft Interim Operational Plan

Dear Colonel Bowman,

Thank you for contacting the Tribe regarding the South Florida Water Management District's Draft Interim Operational Plan for the L-28 South Gated Culverts. As an important part of WERP, the Tribe is eager to provide input on the project. The Tribe requests that the Corps provide technical staff-level coordination on the Draft Interim OP as soon as is practicable, with Mr. Kevin Cunniff as the appropriate staff contact. Additionally, the Tribe reserves the right to engage in formal Government-to-Government consultation at the leadership level, as necessary.

We thank the Corps for its continued commitment to Tribal consultation in Everglades Restoration and look forward to working together on this important project.

Sincerely,

Talbert Cypress | Oct 23, 2025 23:31:42 EDT

Talbert Cypress
Chairman
Miccosukee Tribe of Indians of Florida

SEMINOLE TRIBE OF FLORIDA

TINA OSCEOLA
Executive Director of Operations

6300 STIRLING ROAD, SUITE 345
HOLLYWOOD, FLORIDA 33024

TELEPHONE
(954) 966-6300 EXT. 11428

WEBSITE: www.seminoletribe.com

24 October 2025

Colonel Brandon L. Bowman
District Commander
United States Army Corps of Engineers, Jacksonville District
701 San Marco Boulevard
Jacksonville, FL 32207

Re: Section 408 Draft Interim Operational Plan for L-28S Gated Culverts

Dear Colonel Bowman,

Thank you for contacting the Seminole Tribe of Florida ("Seminole Tribe" or STOF) regarding the Section 408 Draft Interim Operational Plan for the L-28 South Gated Culverts.

The proposed federal action does fall within the STOF Area of Interest. Therefore, the Environmental Protection Office and Tribal Historic Preservation Office respectfully accept the invitation to engage in technical-staff coordination pursuant to 33 U.S.C. Section 408 and Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800).

The Seminole Tribe of Florida's Environmental Protection Office and Tribal Historic Preservation Office have reviewed the pre-application slides and proposed draft interim operations plan and do not have objections or other comments at this time. For additional context, please refer to the email from Cindy Magee, USACE Tribal Liaison, sent on October 20, 2025, as verification of discussions between STOF and USACE on this matter. However, we look forward to the opportunity to review and provide comments on additional project information as it becomes available. Furthermore, the STOF remains committed, as stated in the August 15, 2024 letter of support for the WERP Chief's Report, to close coordination on the design and operation of WERP structures to ensure that the Big Cypress Seminole Indian Reservation continues to receive water conservation and flood control benefits that those features provide.

Our preferred methods of engagement are written correspondences and supplemental virtual and/or in-person coordination meetings. Stacy Myers (StacyMyers@semtribe.com) will represent the Seminole Tribe throughout the NEPA process, and Danielle Simon (DanielleSimon@semtribe.com) will serve as your point of contact for compliance with Section 106. Please submit all notifications/correspondences to THPOCompliance@semtribe.com and ExternalENV@semtribe.com, in addition to Stacy Myers and Danielle Simon.

SEMINOLE TRIBE OF FLORIDA

We look forward to continued coordination with the U.S. Army Corps of Engineers on the proposed federal action and feel free to contact us with any questions or concerns.

Sincerely,

Tina Osceola

Tina Osceola
Executive Director of Operations and Tribal Historic Preservation Officer
Seminole Tribe of Florida

Cc: Juan Cancel, Senior Director of Cultural & Historic Resources
Paul Backhouse, Ph.D. RPA, Senior Director, Environmental Protection Office
Danielle Simon, Compliance Manager, Tribal Historic Preservation Office
Stacy Myers, Director, External Environmental Compliance
Megan Jacoby, Assistant Director, External Environmental Compliance
Chris Johns, Esq., Lewis, Longman & Walker, P.A.
Cindy Magee, Tribal Liaison/Native American Program Manager, United States Army Corps of Engineers, Jacksonville District
Brenda Calvente, Section 408 Project Manager, United States Army Corps of Engineers, Jacksonville District

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

December 19, 2025

Planning and Policy Division
Environmental Branch

Mr. Larry Williams
State Supervisor
Florida Ecological Services Office
U.S. Fish and Wildlife Service
777 37th Street, Suite D-101
Vero Beach, Florida 32960

Dear Mr. Williams:

In accordance with provisions of Section 7 of the Endangered Species Act (ESA) of 1973, as amended, the U.S. Army Corps of Engineers (Corps), Jacksonville District, is hereby initiating informal consultation with the U.S. Fish and Wildlife Service (USFWS) concerning the interim operational criteria for the L-28 South culverts (S-229A, S-229B, S-229C). The L-28 levee is in the western areas of Miami-Dade County and forms the western boundary of Water Conservation Area (WCA) 3A. The L-28 South culverts are features of the Western Everglades Restoration Plan (WERP), a component of the Comprehensive Everglades Restoration Plan (CERP). An integrated Project Implementation Report and Final Environmental Impact Statement (PIR/FEIS) for WERP was completed on November 15, 2024, with signature of a Record of Decision. WERP was authorized in the 2024 Water Resources Development Act signed into law on January 4, 2025.

The South Florida Water Management District (SFWMD) is proceeding with the construction of WERP features. Gated culvert structures S-229A, S-229B, and S-229C are currently under construction. The L-28 South levee is constructed with a borrow canal located on its west side between US 441 and S-344 and on its east side north of S-344. S-229A is located approximately 2.5-miles upstream (north) of S-344. S-229B and S-229C are located downstream (south) of S-344, approximately 2.9-miles and 4.4-miles, respectively (reference Figure 1 in the enclosure). Section 408 approval for the construction of S-229A, S-229B, and S-229C was previously provided to the SFWMD by the Corps' South Atlantic Division (SAD) on March 15, 2024. An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) were completed to support the Section 408 approval. ESA consultation was also completed on November 13, 2024 (Service Project Code No. 2023-0133284).

Current water management operations in the project area are governed by the System Operation Manual Volume 4 for the WCAs, Everglades National Park (ENP),

and ENP to South Dade Conveyance System approved August 28, 2020 (i.e., Combined Operational Plan (COP) Water Control Plan (WCP)). Since a Project Partnership Agreement (PPA) between the Corps and the SFWMD (the Non-Federal Sponsor) has not yet been executed for WERP, all project construction and operational plans are to be reviewed (with preparation of National Environmental Policy Act (NEPA) documentation as appropriate) pursuant to 33 U.S.C. § 408 until the PPA is executed. Construction completion of the L-28 South culverts is anticipated in early 2027. Section 408 approval is also necessary to allow the SFWMD to operate the L-28 South culverts in advance of PPA execution and in advance of incorporation into the current federal WCP (i.e., 2020 COP WCP).

The Corps is initiating informal consultation with the USFWS regarding implementation of the SFWMD's preferred alternative (Alternative A Optimized (ALTA Optimized) or interim operations plan). A copy of the interim operations plan and model documentation report (MDR) prepared by the SFWMD Hydrology and Hydraulics Bureau in support of the Section 408 request was provided to the USFWS on November 7, 2025, and are enclosed in this consultation letter for ease of reference. Under ALTA Optimized, S-229A, S-229B, and S-229C would be operated in a manner consistent with S-344, following the 2020 COP WCP, until such time that eight new monitoring gages are installed. S-229A, S-229B, and S-229C will only be opened when the stage in WCA 3A is within Zone A of the regulation schedule. The structures may be operated up to the peak hydraulic design capacities (S-229A: 250 cubic feet per second (cfs); S-229B: 350 cfs; S-229C: 400 cfs) during this condition. The culverts will be closed if the water level at LOOP1 exceeds 8.5 feet (ft) National Geodetic Vertical Datum of 1929 (NGVD). Eight new monitoring gages (currently in the design phase) will be installed to regularly monitor water levels. Once installed, water levels at these gages will be used to inform operations of S-229A, S-229B, and S-229C when in Zone A based on defined operational targets developed to avoid adverse impacts from operations of the structures on existing roads and environmentally sensitive areas within the project area.

The Corps acknowledges the potential usage and occurrence of federally listed species and critical habitat within the action area. A species list was generated in coordination with the USFWS by reviewing prior ESA consultation for the WERP PIR/FEIS (ECOSphere Consultation Code 2024-0025005). Reference Table 1 and Table 2. The Corps has made a determination of "may affect, not likely to adversely affect" for implementation of the requestor's preferred alternative (ALTA Optimized) for the following federally listed species: (1) Florida bonneted bat (*Eumops floridanus*) and its designated critical habitat; (2) Florida panther (*Puma concolor coryi*); (3) Cape Sable seaside sparrow (*Ammodramus maritimus mirabilis*); (4) Everglade snail kite (*Rostrhamus sociabilis plumbeus*) and its designated critical habitat; (5) wood stork (*Mycteria americana*); (6) eastern black rail (*Laterallus jamaicensis jamaicensis*); (7)

Everglades bully (*Drymarchon corais couperi*) and its proposed critical habitat; (8) Florida pineland crabgrass (*Digitaria pauciflora*) and its proposed critical habitat; (9) Florida prairie-clover (*Dalea carthagenensis floridana*) and its proposed critical habitat; and the (10) Stock island tree snail (*Orthalicus reses (not incl. nesodryas*).

The tricolored bat (*Perimyotis subflavus*) is proposed to be listed as endangered under Section 4 of the ESA. In accordance with Section 7(a)(4) of the ESA, the Corps requests a conference concurrence on the potential effects of the requestor's preferred alternative on the tricolored bat. The Corps has made a determination of "may affect, not likely to adversely affect" for the tricolored bat.

The Corps has determined that the requestor's preferred alternative would have no effect on all other federally listed species and critical habitat under the purview of the USFWS with the potential to occur in the action area not mentioned above (Table 1 and Table 2). Additional information supporting the above determinations has been enclosed.

The Corps respectfully requests that the USFWS provide concurrence on the Corps' species effect determinations (see enclosure for detailed evaluation) within 30 days of the receipt of this letter. Any conservation measures to avoid and minimize the action's potential adverse effects on federally listed species and their designated critical habitat resulting from the ESA consultation is expected to be incorporated as a condition in the Section 408 approval. If you have any questions or concerns, please contact Ms. Melissa Nasuti by email Melissa.A.Nasuti@usace.army.mil or telephone 904-232-1368 regarding this consultation request.

Sincerely,

BRADSHAW.JAMES.KENNETH.1557862354

Digitally signed by BRADSHAW.JAMES.KENNETH.1557862354
Date: 2025.12.19 09:27:56 -05'00'

Gretchen Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosures

cc:

Mr. Timothy Breen, U.S. Fish and Wildlife Service, timothy_breen@fws.gov
FW4FLESRegs@fws.gov

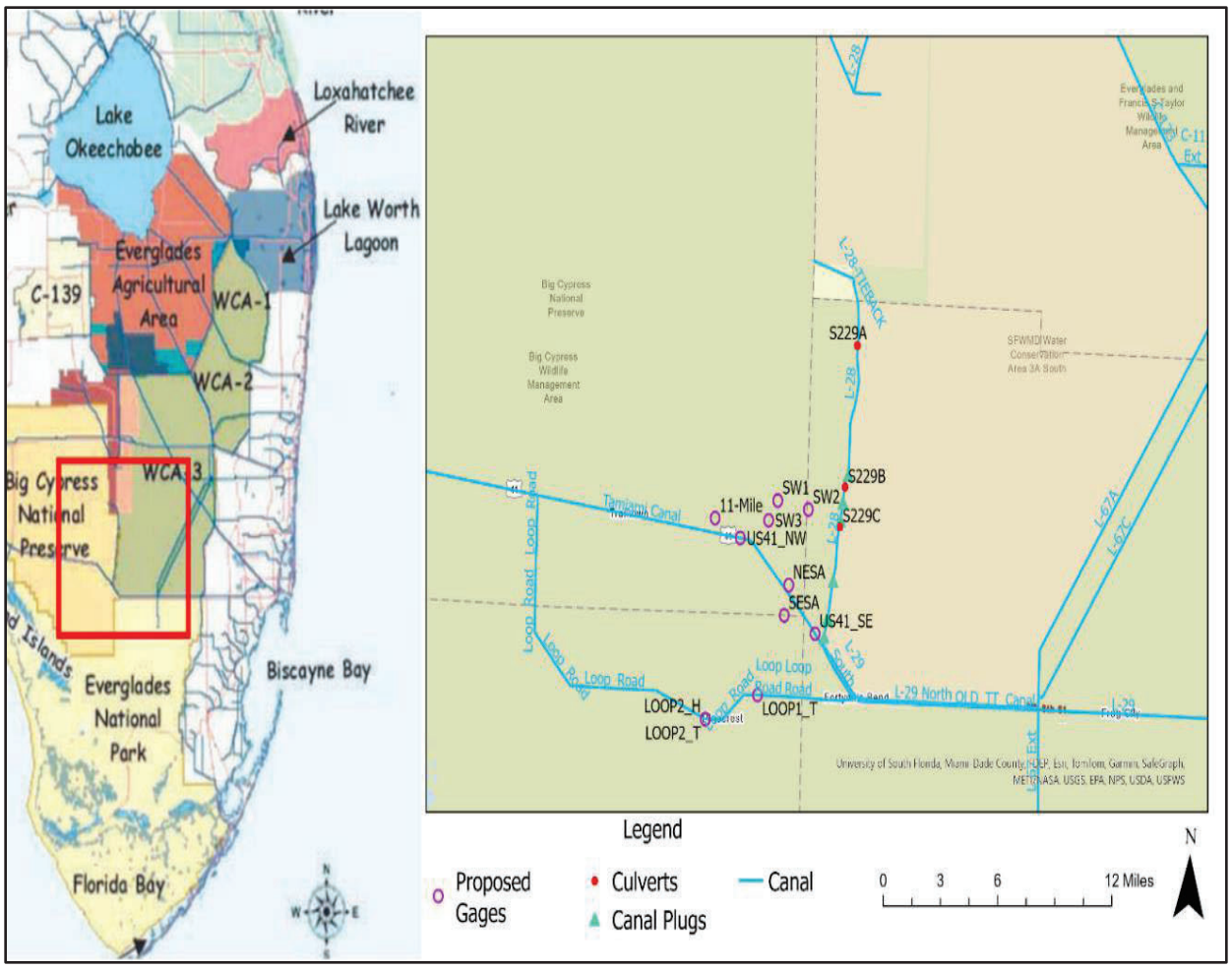


Figure 1. Location of L-28 South Culverts. S-344 is located between S-229B and S-229C.

Table 1. List of federally threatened and endangered species with the potential to occur within the action area for the L-28 South culverts interim operations plan and the U.S. Army Corps of Engineers (Corps) effect determinations (E: Endangered; T: Threatened; PE; Proposed Endangered).

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS	MAY AFFECT	MAY AFFECT NOT LIKELY TO ADVERSELY AFFECT	NO EFFECT
Mammals	-	-	-	-	-
Florida bonneted bat	*Eumops floridanus*	E		X	
Florida panther	*Puma (=Felis) concolor coryi*	E		X	
Tricolored bat	*Perimyotis subflavus*	PE		X	
West Indian manatee	*Trichechus manatus*	T			X
Birds	-	-	-	-	-
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	E		X	
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	E		X	
Red-cockaded woodpecker	*Picoides borealis*	E			X
Wood stork	*Mycteria americana*	T		X	
Eastern black rail	*Laterallus jamaicensis ssp. Jamaicensis*	T		X	
Reptiles	-	-	-	-	-
Eastern indigo snake	*Drymarchon corais couperi*	T			X
Plants	-	-	-	-	-
Everglades bully	*Sideroxylon reclinatum ssp. Austrojloridense*	T		X	

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS	MAY AFFECT	MAY AFFECT NOT LIKELY TO ADVERSELY AFFECT	NO EFFECT
Florida pineland crabgrass	*Digitaria pauciflora*	T		X	
Florida prairie-clover	*Dalea carthagenensis floridana*	E		X	
Invertebrates	-	-	-	-	-
Stock Island tree snail	*Orthalicus reses (not incl. nesodryas)*	T		X	

Table 2. Designated and proposed critical habitat with the potential to occur within the action area for the L-28 South culverts interim operations plan and the Corps' effect determinations (CH: Designated critical habitat; PCH: Proposed Critical Habitat).

COMMON NAME	SCIENTIFIC NAME	CRITICAL HABITAT	MAY AFFECT	MAY AFFECT NOT LIKELY TO ADVERSELY AFFECT	NO EFFECT
Mammals	-	-	-	-	-
Florida bonneted bat	*Eumops floridanus*	CH		X	
Birds	-	-	-	-	-
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	CH		X	
Plants	-	-	-	-	-
Everglades bully	*Sideroxylon reclinatum ssp. Austrojloridense*	PCH		X	
Florida pineland crabgrass	*Digitaria pauciflora*	PCH		X	
Florida prairie-clover	*Dalea carthagenensis floridana*	PCH		X	

1. INTRODUCTION

The following information has been provided to support the U.S. Army Corps of Engineers' (Corps) effects determinations regarding implementation of the South Florida Water Management District's (SFWMD) preferred alternative (Alternative A Optimized (ALTA Optimized) or interim operations plan). A copy of the interim operations plan and model documentation report (MDR), prepared by the SFWMD Hydrology and Hydraulics Bureau in support of the Section 408 request was provided to the U.S. Fish and Wildlife Service (USFWS) on November 7, 2025, and are attached to the consultation letter for ease of reference.

Hydrologic modeling was conducted by the SFWMD Hydrology and Hydraulics Bureau with the Regional Simulation Model (Glades Lower East Coast Service Area (RSM-GL)) to support the development and evaluation of potential alternatives for operating S-229A, S-229B, and S-229C as documented in the MDR. Alternative A (ALTA) and Alternative B (ALTB) used a stage constraint at the Loop Road 1 (LOOP1) gage of 8.5 feet (ft) National Geodetic Vertical Datum of 1929 (NGVD) to inform operations of the structures when stages in Water Conservation Area (WCA) 3A were in Zone A of the regulation schedule. ALTA and ALTB differed based on the assumed maximum operational capacities of S-229A, S-229B, and S-229C when in Zone A as follows:

- ALTA: assumed (1) up to 250 cubic feet per second (cfs) at S-229A, 350 cfs at S-229B and 400 cfs at S-229C (reflective of hydraulic design capacity at each gated culvert); versus
- ALTAB: assumed (2) up to 250 cfs at S-229A, 125 cfs at S-229B and 125 cfs at S-229C).

In addition, sensitivity runs Alternative AS1 (ALTAS1) and Alternative BS1 (ALTBS1) were tested during hydrologic modeling to explore additional downstream operational constraints apart from LOOP1 as the SFWMD is increasing the hydrologic monitoring network in effected areas downstream of the L-28 South culverts by adding or upgrading existing stilling wells (reference Figure 3 in the interim operations plan). An evaluation of the hydrologic modeling conducted for ALTA, ALTB, ALTAS1, and ALTBS1 informed the development of ALTA Optimized. If implemented, ALTA Optimized is expected to be between the modeled hydrologic performance of ALTA and ALTAS1. ALTA and ALTAS1 are therefore mentioned in this document in order to support an evaluation of potential effects of ALTA Optimized on federally listed species. Complete descriptions of the model assumptions for the aforementioned alternatives and sensitivity runs, including the no action (referred to and represented by the existing conditions baseline (ECB24) is in the

MDR).[1] Refer to the enclosed interim operations plan for a complete description of ALTA Optimized. The need to provide consideration for potential impacts to Cape Sable seaside sparrow (CSSS) conditions has been explicitly added to the enclosed interim operations plan along with a commitment to perform additional information gathering and field reconnaissance to help inform water management decisions.

ALTA Optimized is expected to influence wetland hydrology. The operation of S-229A, S-229B, and S-229C resulted in changed ponding depths and hydroperiods (as modeled in RSM-GL) compared to ECB24 in areas: (1) adjacent to the L-28 South levee; (2) in southern Big Cypress National Preserve (BCNP); (3) in southern WCA 3A; and (4) downstream of the structures along the boundary area between BCNP and Everglades National Park (ENP). A summary of potential hydrologic changes is provided below and referenced for each species in this document where appropriate.

It is important to note that the water level trends associated with the interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 Western Everglades Restoration Project (WERP) Final Project Implementation Report and Environmental Impact Statement (PIR/EIS) and are expected to be less than those previously consulted upon under the WERP Biological Opinion (BO) (Service Consultation Code 2024-0025005). Modeling completed for that effort assumed the construction and operation of all WERP features in addition to assumed completion of CERP projects (e.g., 2014 Central Everglades Planning Project (CEPP)) recommended plan features; meaning that the water budget was assumed to be greater than that under current conditions).

Summary of Potential Hydrologic Changes as Modeled by RSM-GL:

Total flow through S-229A, S-229B, and S-229C increased on an average annual basis across the modeled period of record POR (1965-2016) for ALTA and ALTAS1 by 49 thousand-acre feet (KAC-FT) and 9.3 KAC-FT compared to ECB24. These increases were accompanied by decreases through S-344, S-343A, S-343B, S-12A, S-12B, S-12C, and S-12D. Total flow through these WCA 3A outlet structures decreased for ALTA and ALTAS1 by 36.5 KAC-FT and 6.5 KAC-FT compared to ECB24. Reference **Table 1**.

[1] Operations proposed for the 2025 Multi-Year Planned Temporary Deviation to the COP WCP were not included in ECB24 since the modeling for the L-28 South interim operations plan was completed prior to that effort. Completion of the National Environmental Policy Act (NEPA) document and approval of the deviation by the Corps' South Atlantic Division is pending.

Table 1. Average annual outflows for the modeled POR (1965-2016) are shown in thousand-acre feet (KAC-FT) for WCA 3A outlet structures.

Structure	ECB24	ALT1	ALTA-ECB24	ALTAS1	ALTAS1-ECB24
S-343A/S-343B	4.1	3.5	-0.6	4	-0.1
S-344	5.9	5.1	-0.8	5.8	-0.1
S-12A	25.6	21.4	-4.2	25.3	-0.3
S-12B	28.1	23.7	-4.4	27.8	-0.3
S-12C	88.4	76.2	-12.2	86	-2.4
S-12D	166.5	152.2	-14.3	163.3	-3.2
Total Above Structures	318.6	282.1	-36.5	312.2	-6.5
S-229A	NA	3.3	3.3	0.7	0.7
S-229B	NA	21.3	21.3	4	4
S-229C	NA	24.4	24.4	4.6	4.6
Total S-229A, S-229B, S-229C	NA	49	49	9.3	9.3
Total All Structures	318.6	331.1	12.5	321.5	2.9

The operation of S-229A, S-229B, and S-229C resulted in changes in overland flow in areas adjacent to and directly downstream of the structures. ALTA and ALTAS1 increased average annual overland flow across the modeled POR (1965-2016) at transects W13 and W16 by 0.7 KAC-FT and 7.3 KAC-FT compared to ECB24. These transects are located west of the L-28 South levee and south of S-343A and S-343B between U.S. 41 and Loop Road. ALTAS1 decreased average annual overland flow at W13 by 0.1 KAC-FT but increased overland flow at W16 by 1.2 KAC-FT. Transect T17 is located south of south of S-12A, S-12B, S-12C, and S-12D. ALTA and ALTAS1 decreased average annual overland flow at this transect by 9.1 KAC-FT and 1.6 KAC-FT compared to ECB24. Reference **Table 2**. Reference Figure 4.5 in the MDR for transect locations.

Table 2. Average annual overland flow for the modeled POR (1965-2016) is shown in thousand-acre feet (KAC-FT) for select transects downstream of S-229A, S-229B, and S-229C. Dry season and wet season are also shown.

Transect	ECB24	ALT1	ALTA-ECB24	ALTAS1	ALTAS1-ECB24
W13 Dry Season	2.7	3.2	0.5	2.7	0
W13 Wet Season	5.5	5.7	0.2	5.4	-0.1
W13 Total	8.2	8.9	0.7	8.1	-0.1
W16 Dry Season	6.5	10.8	4.3	7.5	1
W16 Wet Season	14.2	17.2	3	14.4	0.2

Transect	ECB24	ALT1	ALTA-ECB24	ALTAS1	ALTAS1-ECB24
W16 Total	20.7	28	7.3	21.9	1.2
T17 Dry Season	72.3	66	-6.3	71.3	-1
T17 Wet Season	97.6	88.5	-9.1	96	-1.6
T17 Total	169.9	154.5	-15.4	167.3	-2.6

The operation of S-229A, S-229B, and S-229C resulted in changes in ponding depths and hydroperiods in areas adjacent to and directly downstream of the structures. Increased ponding depths ranging from 0.1 to 0.25 ft at the low end to 0.25 to 0.5 ft at the high end were observed during a representative wet year (1995) in areas adjacent to the L-28 South levee and in portions of southern BCNP from US41 to Loop Road under ALTA. This pattern was coupled with decreased ponding depths of 0.1 to 0.25 ft in southern WCA 3A. Increased ponding depths of 0.10 to 0.25 ft were observed under ALTAS1 as well; however, changes were spatially limited to areas adjacent to the L-28 South levee in BCNP. The spatial extent of ponding depth changes for ALTA and ALTAS1 were smaller during representative dry (1989) and average (1978) years, and on an average annual basis for the modeled POR (1965-2016). Changed ponding depths of 0.10 to 0.25 ft were limited to areas adjacent to the L-28 South levee in BCNP. Reference **Figure 1, Figure 2**, and **Figure 5**. Potential changes were amplified for a representative year with El Niño conditions (2016).

Increased hydroperiods ranging from 14 to 30 days at the low end to > 90 days at the high end were observed in areas adjacent to the L-28 South levee and in portions of southern BCNP from US41 to Loop Road during a representative wet year (1995) and on an average annual basis for the modeled POR (1965-2016) under ALTA. The same pattern was observed for ALTAS1, however the spatial extent of hydroperiod changes was reduced compared to ALTA. During representative dry (1989) and average (1978) years, decreased hydroperiods of 14 to 30 days and increased hydroperiods of > 90 days were observed in these same areas for ALTA and ALTAS1. Reference **Figure 3**, **Figure 4**, and **Figure 5**. Potential changes were amplified for a representative year with El Niño conditions (2016).

Please reference Figures B.2, B.3, B.4 and B.9 in the provided MDR for magnified visuals of changes in stage and hydroperiod directly adjacent to and south of the L-28 South Levee to include US 41 and Loop Road.

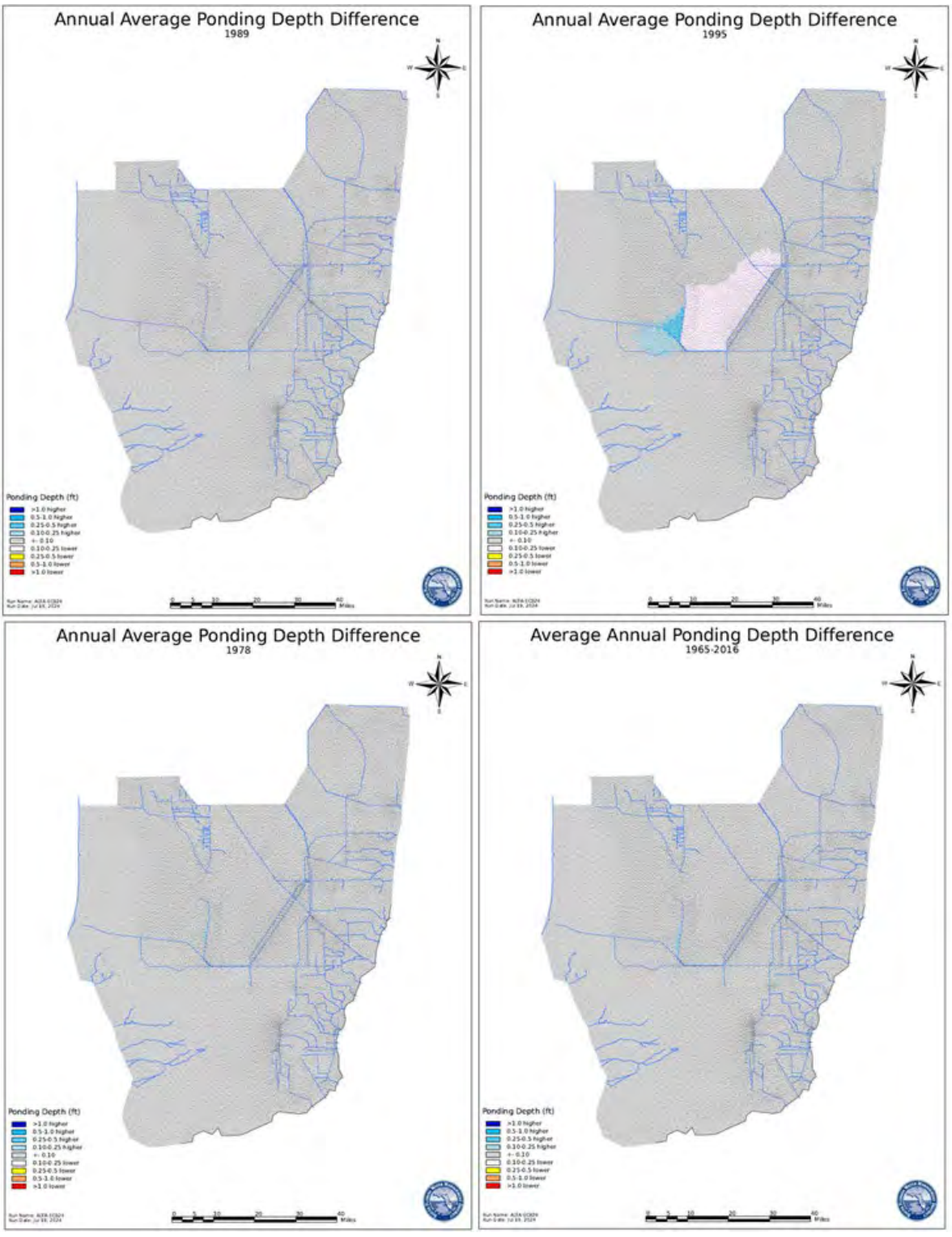


Figure 1. Annual ponding difference in the modeled POR (1965-2016) for ALTA compared to ECB24 for a representative dry year (1989), wet year (1995), and average year (1978). Average annual ponding difference is also shown for the modeled POR (1965-2016).

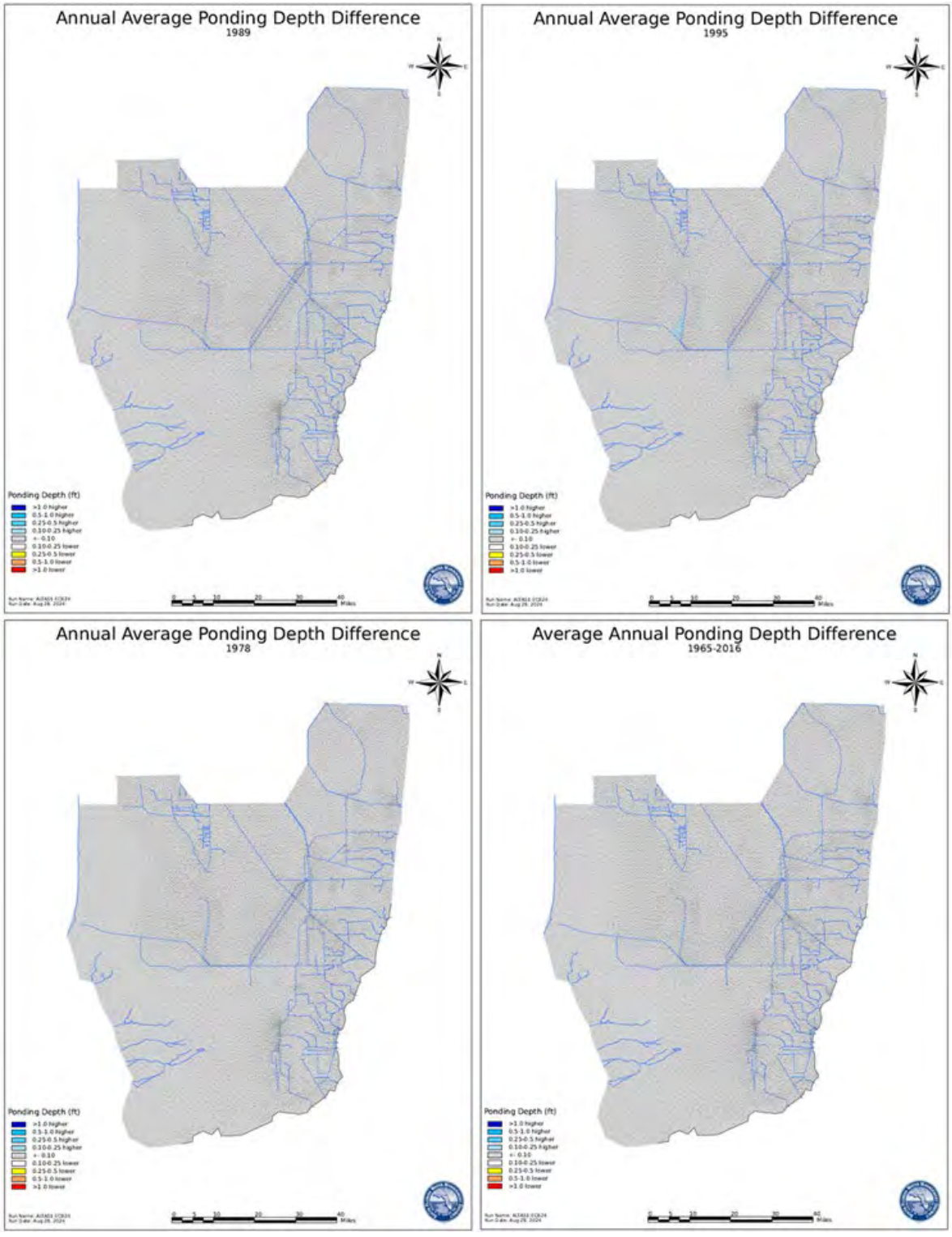


Figure 2. Annual ponding difference in the modeled POR (1965-2016) for ALTAS1 compared to ECB24 for a representative dry year (1989), wet year (1995), and average year (1978). Average annual ponding difference is also shown for the modeled POR (1965-2016).

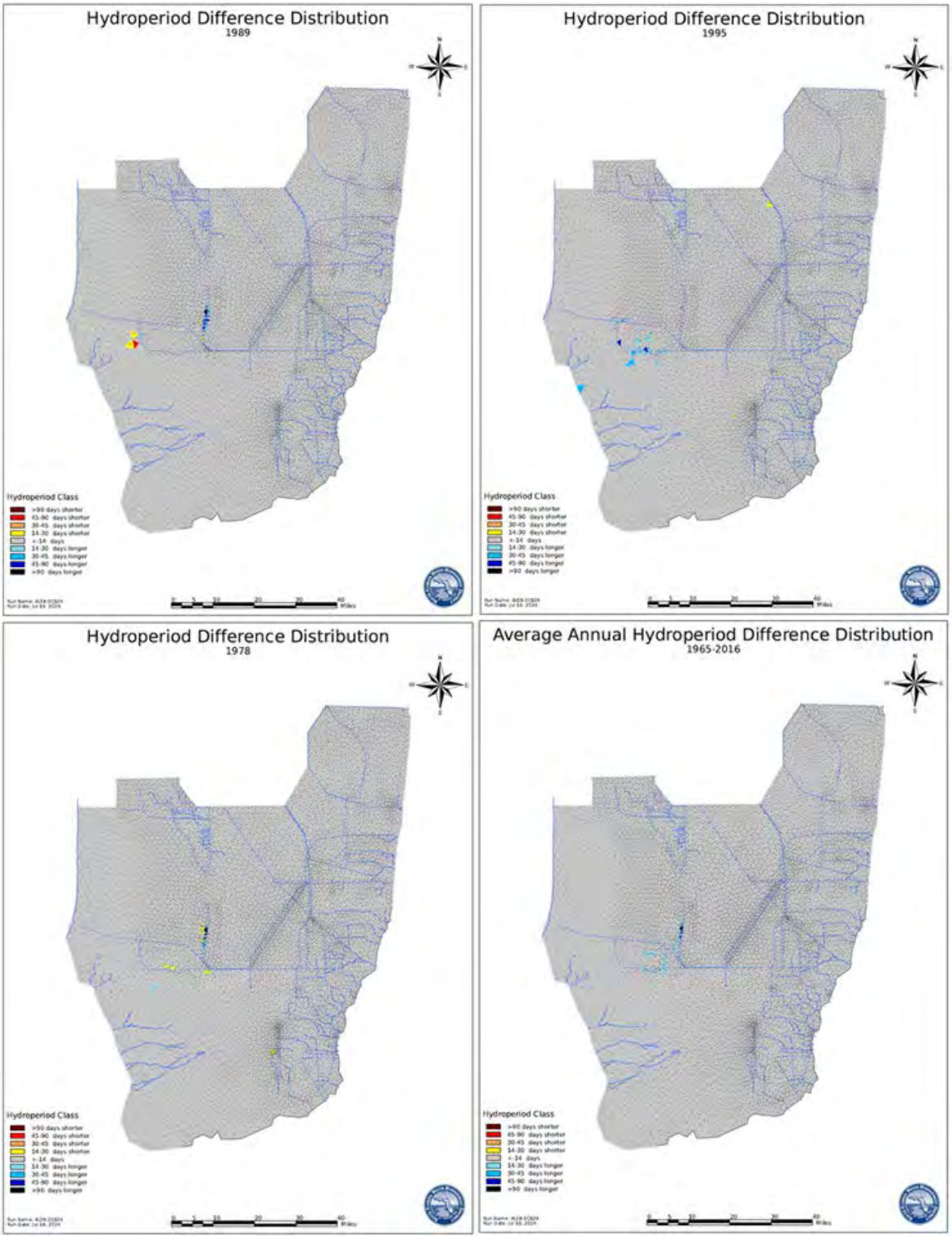


Figure 3. Annual hydroperiod difference in the modeled POR (1965-2016) for ALTA compared to ECB24 for a representative dry year (1989), wet year (1995), and average year (1978). Average annual hydroperiod difference is also shown for the modeled POR (1965-2016).

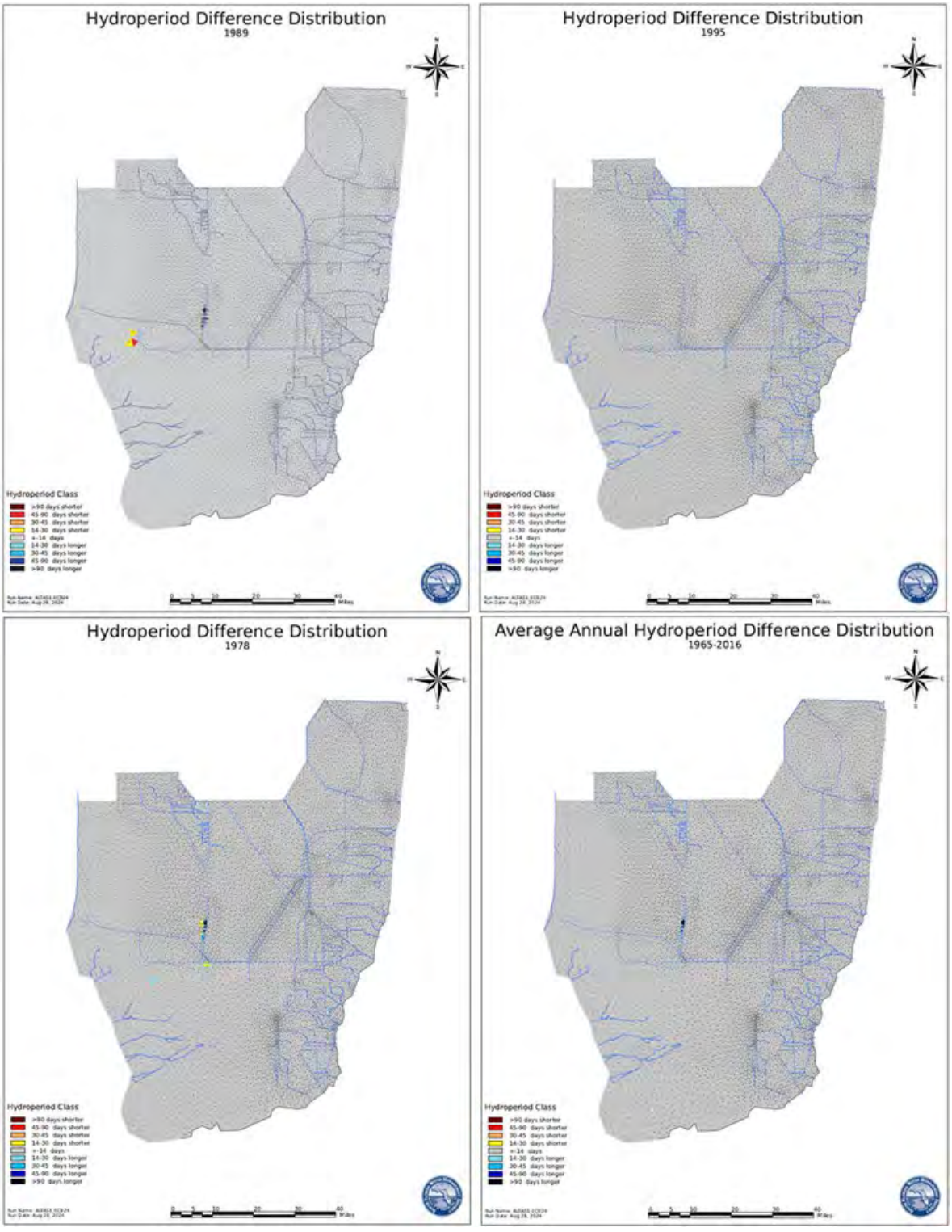


Figure 4. Annual hydroperiod difference in the modeled POR (1965-2016) for ALTAS1 compared to ECB24 for a representative dry year (1989), wet year (1995), and average year (1978). Average annual hydroperiod difference is also shown for the modeled POR (1965-2016).

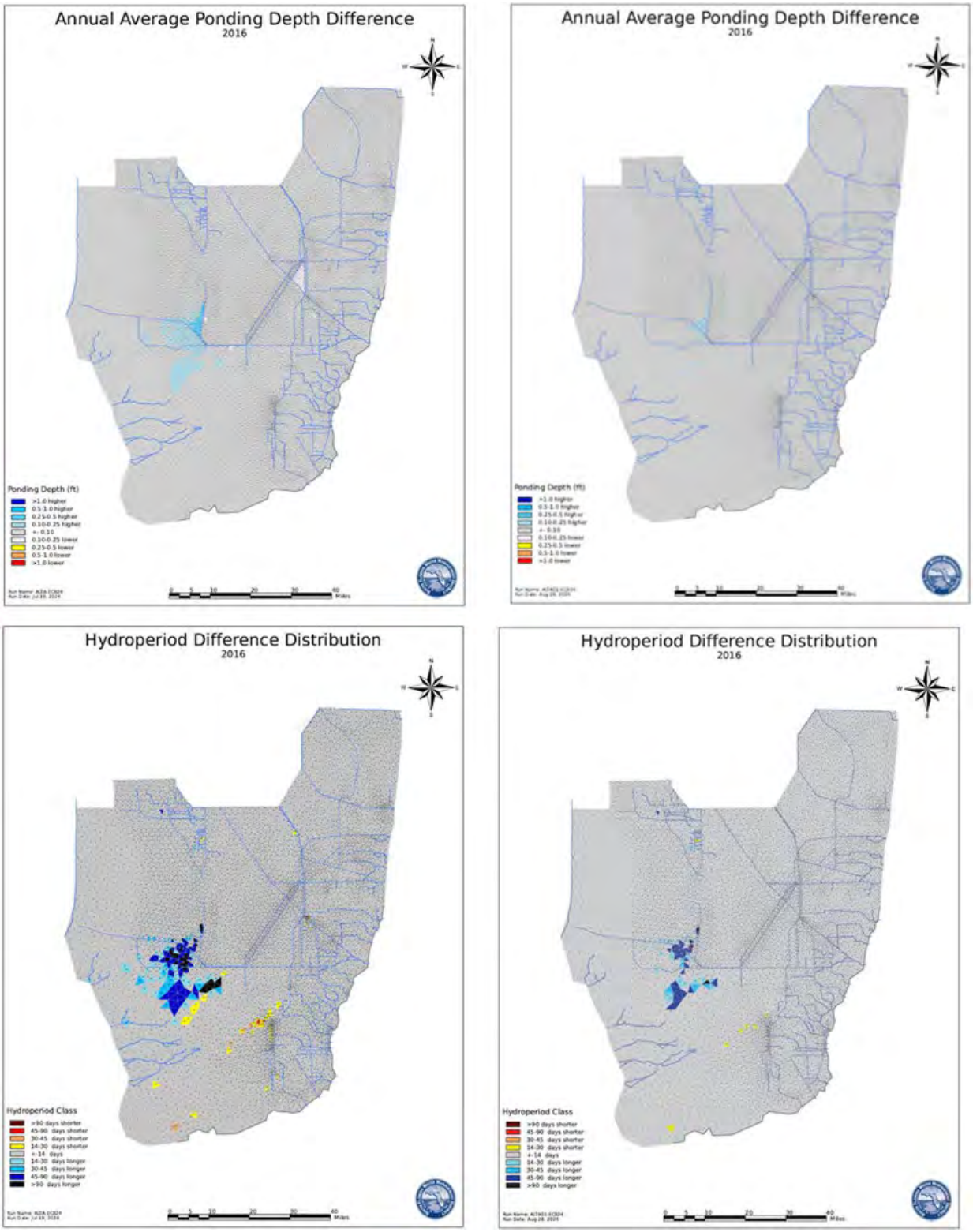


Figure 5. Annual ponding and annual hydroperiod difference in the modeled POR (1965-2016) for ALTA and ALTAS1 compared to ECB24 for a representative year with El Nino conditions (2016).

1.1 FLORIDA BONNETED BAT AND TRICOLORED BAT

The Florida bonneted bat (FBB) and tricolored bat (TCB) may use the action area for foraging and roosting. In general, FBBs and TCBs will forage over ponds, streams, and wetlands and require roosting habitat for daytime roosting, protection from predators, and rearing of young. FBBs and TCBs in south Florida roost primarily in trees and manmade structures.

The Corps has determined that ALTA Optimized may affect, but is not likely to adversely affect the FBB, its designated critical habitat (CH), and the TCB due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). CH was designated for the FBB on March 7, 2024 (89 Federal Register (FR) 16624). There are nine units that are designated, of these only two are located within the action area: (1) Unit 6: Big Cypress – encompasses lands in Collier, Hendry, and Monroe Counties; and (2) Unit 7: Everglades Tree Islands – encompasses lands in Miami-Dade County. Unit 6 is located just west of the L-28 South levee, extending southward across U.S. 41 and Loop Road. Unit 7 is located southeast of S-12B, directly below S-12C and S-12D and spans both east and west of the L-67 Extension. Potential effects to prey density/production as a result of potential hydrologic changes is uncertain. Terrestrial insect species such as coleopteran (beetles) might decrease as hydroperiod decreases; conversely, dipteran (true flies and midges) insect species might increase as hydroperiod increases. Regardless, foraging habitat for the FBB and TCB is expected to continue to exist throughout the action area. While potential hydrologic changes may influence hydropatterns and habitat throughout portions of the action area, these changes are not expected to preclude FBBs or TCBs from occupying these areas or other areas where hydrologic conditions are not expected to shift. Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP PIR/EIS.

Any actions that occur in areas known to be occupied by these species and result in the removal of potential roost sites (snags, trees) or impact foraging habitat are likely to have direct and indirect adverse effects to these species and their habitat. ALTA Optimized consists of an operational change to current water management practices and does not include construction of permanent structures or modifications to existing Central and Southern Florida (C&SF) project features, such as backfilling of canals that these species may forage over. No land clearing or excavation is expected to occur; therefore, removal of roosting sites would not occur. ALTA Optimized would have no effect on roosting sites. ESA consultation for the construction of S-229A, S-229B, and S-229C was completed on November 13, 2024 (Service Project Code No. 2023-0133284).

1.2 FLORIDA PANTHER

The action area is located within the primary zone of the USFWS's Panther Focus Area. The focus area is based on scientific information on panther habitat usage provided in Kautz et al. 2006 and Thatcher et al., 2006 and denotes areas in Florida where

developmental projects could potentially affect the panther. The primary zone is currently occupied and supports the only known breeding population of Florida panthers in the world. Primary threats to Florida panthers include loss, degradation, and fragmentation of habitat. Panthers also face declining prey populations, disturbance from construction and operation, emerging infectious diseases, intra-specific aggression, and mortality from vehicular collisions.

The main diet of the Florida panther consists of white-tailed deer, sometimes wild hog, rabbit, raccoon, armadillo, and birds. The type of prey available to the panther affects the health and distribution of the panther, as well as its ability to breed and support young. Deer populations are a critical factor affecting the survival of the Florida panther. Stresses from high water may weaken individual deer and make them more vulnerable to predation. Bled et al. 2022 collected known-fate survival data on collared adult deer from 2015 to 2018 in the Florida Panther National Wildlife Refuge and BCNP to assess effects of panther predation on the deer population, while also evaluating the impacts of hunting and hydrology. Bled et al. 2022 notes that previous studies have suggested that water depths exceeding 1.6 ft (0.5 meters (m)) are detrimental to deer populations (Labisky et al., 1999, Loveless, 1959, and MacDonald-Beyers and Labisky, 2005). Results from the Bled et al. 2022 study have corroborated these results for females. The Corps evaluated the model results to identify any cells in the model domain for RSM-GL that shifted from < 1.6 ft of ponding depth under ECB24 to > 1.6 ft of ponding depth under ALTA or ALTAS1. This occurred in only eight out of the 7,076 cells (less than 0.1%) in model domain and only occurred during a representative wet year (1995). Shifts were not observed for a representative dry year (1989), representative average year (1978) or for average annual across the modeled POR (1965-2016). Adverse effects on primary prey, such as the white-tailed deer are not anticipated across the majority of BCNP.

Typically, terrestrial wildlife species such as panthers, white tailed deer, marsh rabbits, bobcats, and other small and medium-sized mammals are vulnerable to high water conditions, responding by moving to elevated locations, such as tree islands, spoil islands, and levees. Long term beneficial indirect effects to the panther may occur from interim operations of S-229A, S-229B, and S-229C due to potential reductions in high water levels in WCA 3A. This may provide dry ground for foraging, loafing, and resting through reduced tree island inundation during high water conditions. The percent of time that RSM-GL simulated WCA 3A stages to be within Zone A of the regulation schedule were as follows: (1) 17.56% for ECB24; (2) 16.02% for ALTA; and (3) 17.16% for ALTAS1. A comparison of the number of days per month across the RSM-GL modeled POR (1965-2016) showed that ALTA and ALTAS1 have the potential to lower water levels in WCA 3A, especially during the winter months (**Table 3**).

Table 3. Number of days per month when WCA 3A stages were simulated with RSM-GL to be within Zone A of the Regulation Schedule. Total days in modeled POR (1965-2016) is 18,993.

Month	ECB24	ALTA	ALTA-ECB24	ALTA-ECB24 (%)	ALTAS1	ALTAS1-ECB24	ALTAS1-ECB24 (%)
January	172	136	-36	-20.93	164	-8	-4.65
February	166	162	-4	-2.41	166	0	0.00
March	225	217	-8	-3.56	219	-5	-2.67
April	199	186	-13	-6.53	190	-9	-4.52
May	123	102	-21	-17.07	115	-7	-6.50
June	181	161	-20	-11.05	173	-8	-4.42
July	462	436	-26	-5.63	447	-15	-3.25
August	469	441	-28	-5.97	467	-2	-0.43
September	407	372	-35	-8.60	402	-4	-1.23
October	408	374	-34	-8.33	406	-1	-0.49
November	348	299	-49	-14.08	339	-8	-2.59
December	176	156	-20	-11.36	172	-4	-2.27
Total	3,336	3,042	-294	-	3,260	-71	-

The Corps also evaluated the conversion of short hydroperiod wetlands (e.g., a wetland with between 0 and 180 days of inundation per year) to long hydroperiod wetlands (e.g., a wetland with greater than 180 days of inundation per year) under ALTA and ALTAS1 in the RSM-GL model mesh to further understand potential effects to the panther. An estimated 4,359 and 492 acres of short hydroperiod wetlands with an average annual hydroperiod of less than 180 days under ECB24 were observed to be inundated for more than 180 days under ALTA and ALTAS1 (reference **Section 1.5**). ALTA had a greater increase in hydroperiod duration and extent from ECB24 than ALTAS1. While potential hydrologic changes may influence hydropatterns and habitat throughout portions of the action area, these changes are not expected to preclude Florida panthers from occupying other areas where hydrologic conditions are not expected to shift under interim operations, such as portions of northern and central BCNP. A review of Florida panther telemetry data from 2010 through 2024 indicates frequent utilization of these areas by panthers (reference https://geodata.myfwc.com/search?collection=Dataset&q=panther).

The Corps has determined that ALTA Optimized may affect but is not likely to adversely affect the Florida panther due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP PIR/EIS.

The interim operations plan consists of an operational change to current water management practices and does not include construction of permanent structures or modifications to existing C&SF project features. No land clearing and excavation is expected to occur, therefore potential adverse effects to the panther resulting from additional vehicle access, additional human presence, heavy equipment operations, road traffic, noise and lighting associated with construction would not occur. ESA consultation for the construction of S-229A, S-229B, and S-229C was completed on November 13, 2024 (Service Project Code No. 2023-0133284).

1.3 CAPE SABLE SEASIDE SPARROW (CSSS) AND CSSS CRITICAL HABITAT

Presently, the known distribution of the Cape Sable seaside sparrow (CSSS) is restricted to three areas of marl prairies east and west of Shark River Slough in the Everglades region (within ENP and BCNP) and the edge of Taylor Slough in the Southern Glades Wildlife and Environmental Area in Miami-Dade County. CSSS presently inhabit six separate subpopulations (i.e., CSS-Ax through CSSS-F) with CSSS-Ax, as the only subpopulation west of Shark River Slough. CSSS-Ax is most likely to be affected by ALTA Optimized due to the subpopulation being located south of WCA 3A and S-229A, S-229B, and S-229C.

Based on the 2020 Combined Operational Plan (COP) BO the two most important hydrologic parameters for maintaining and enhancing the chances for CSSS survival are: (1) the number of consecutive days during the CSSS nesting season (March 1 – July 15) when there is no surface water (i.e., dry nesting days); and (2) the total number of days when there is water above ground surface during the year (i.e., annual discontinuous hydroperiod) (USFWS 2020). Since it takes the CSSS, a ground nesting bird, approximately 45 days to nest and fledge young, the 2020 COP BO set a target of providing at least 90 consecutive dry nesting days between March 1 and July 15, over at least 24,000 acres[2] within and adjacent to CSSS-Ax, and across at least 40% of each of the eastern subpopulations (B-F) every year, to allow for multiple broods during each nesting season to stabilize and potentially increase the population (USFWS 2020). Since an average annual discontinuous hydroperiod of between 90-210 days is required to maintain suitable marl prairie habitat for the CSSS (USFWS 2020), the 2020 COP BO set a target of providing a four-year running average discontinuous hydroperiod of 90-210 days over at least 24,000 acres[2] within and adjacent to CSSS-Ax (with no 2 consecutive years failing to meet this target), and across at least 40% of each of the eastern subpopulations (B-F). If the number of days with surface water is consistently more than 210 days, the habitat will convert to sawgrass. If it is consistently too dry (less than 90

[2] Per the 2020 COP BO, the requirement to provide suitable habitat conditions over 40% of the habitat within CSSS-Ax equates to approximately 24,000 acres. Reference page 34 and 42 of the 2020 COP BO. However, personal communication with the USFWS staff has indicated that 24,000 acres equates to 30% of CSSS-Ax.

days), woody vegetation encroaches on the habitat and there is an increased risk of fire and predation on CSSS from aerial predators (e.g., raptors).

To evaluate potential effects on the CSSS-Ax from the interim operations plan, the aforementioned hydrologic parameters (i.e., dry nesting days and annual discontinuous hydroperiod) were evaluated at the request of the USFWS. **Table 4** and **Figure 6** depicts the average % of habitat within CSSS-Ax that experienced ≥ 90 consecutive dry days during the nesting season over the modeled POR (1965-2016) as well as the number of individual years: (1) the nesting target (≥ 40%) was met; (2) ALTA and ALTAS1 were observed to be greater than or equal to ECB24 (e.g., ALT minus ECB24 is equal to or greater than 0); and (3) ALTA and ALTAS1 were observed to be less than ECB24 (e.g., ALT minus ECB24 is less than 0). ECB24, ALTA, and ALTAS1 achieved an average % of ≥ 40% in CSSS-Ax over the modeled POR (ECB24: 42.53%; ALTA: 41.26%; ALTAS1: 41.70%). The difference in average % between ECB24 and ALTA and ECB24 and ALTAS1 was -1.28% and -0.84%. The frequency at which the nesting target (≥ 40%) was met was the same for ECB24 and ALTAS1 (24/52 years). ALTA decreased the frequency by one (23/52 years). Under ALTA and ALTAS1, the % of habitat within CSSS-Ax that experienced ≥ 90 consecutive dry days during the nesting season was either equal to ECB24 or greater than ECB24 in 24/52 years and in 22/52 years and less than ECB24 in 28/52 years and in 30/52 years.

Table 5 and **Figure 6** depicts the average % of habitat within CSSS-Ax that experienced an annual discontinuous hydroperiod between 90-210 days over the modeled POR (1965-2016) as well as the number of individual years: (1) the discontinuous hydroperiod target (≥ 40%) was met; (2) ALTA and ALTAS1 were observed to be greater than or equal to ECB24 (e.g., ALT minus ECB24 is equal to or greater than 0); and (3) ALTA and ALTAS1 were observed to be less than ECB24 (e.g., ALT minus ECB24 is less than 0). ECB24, ALTA, and ALTAS1 did not achieve an average annual discontinuous hydroperiod target of ≥ 40% in CSSS-Ax over the modeled POR (ECB24: 29.38%; ALTA: 28.53%; ALTAS1: 28.95%). The difference in average % between ECB24 and ALTA and ECB and ALTAS1 was -0.85% and -0.43%. The frequency at which the annual discontinuous hydroperiod target (≥ 40%) was met was the same for ECB24 and ALTAS1 (19/52 years). ALTA decreased the frequency by one (18/52 years). Under ALTA and ALTAS1, the % of habitat within CSSS-Ax that experienced an annual discontinuous hydroperiod between 90-210 days was either equal to ECB24 or greater than ECB24 in 21/52 years and in 23/52 years and less than ECB24 in 31/52 years and in 29/52 years.

Table 4. CSSS-Ax Nesting Season Statistics: % of habitat within CSSS-Ax that met ≥ 90 consecutive dry days during March 1 through July 15 of each year over the modeled POR (1965-2006).

Metric	CSSS-Ax: ECB24	CSSS-Ax: ALTA	CSSS-Ax: ALTAS1
Average (Diff ALT – ECB24)	42.53	41.26 (-1.28)	41.70 (-0.84)
Number of Times POR Target (≥40%) Met	24	23	24
Number of Times ALT ≥ ECB24	-	24	22
Number of Times ALT < ECB24	-	28	30

Table 5. CSSS-Ax Annual Discontinuous Hydroperiod Statistics: % of habitat within CSSS-Ax to meet an annual discontinuous hydroperiod between 90 and 210 days over the modeled POR (1965-2016.

Metric	CSSS-Ax: ECB24	CSSS-Ax: ALTA	CSSS-Ax: ALTAS1
Average (Diff ALT – ECB24)	29.38	28.53 (-0.85)	28.95 (-0.43)
Number of Times POR Target (≥40%) Met	19	18	19
Number of Times ALT ≥ ECB24	-	21	23
Number of Times ALT < ECB24	-	31	29

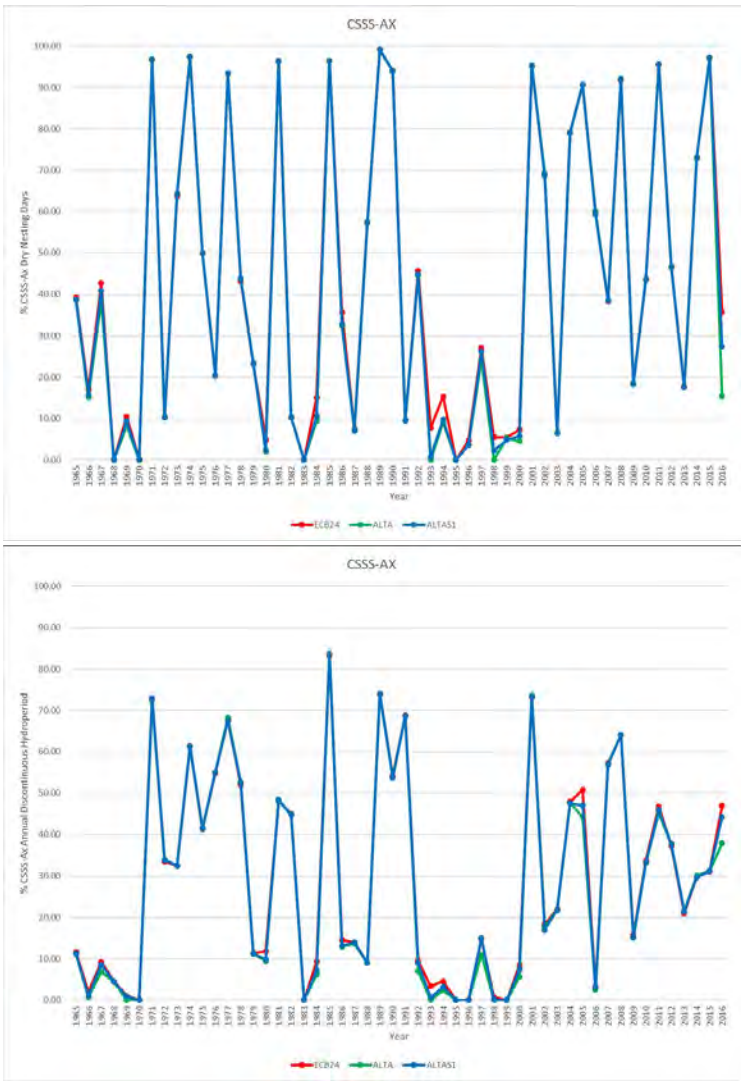


Figure 6. CSSS-Ax: % of habitat that met ≥ 90 consecutive dry days during March 1 through July 15 of each year over the modeled POR (1965-2016) (Top Graphic) and % of habitat to meet an annual discontinuous hydroperiod between 90 and 210 days over the modeled POR (1965-2016) (Bottom Graphic).

To further evaluate potential effects on marl prairie habitat, the Corps evaluated the vegetation-inferred discontinuous hydroperiod in CSSS-Ax. **Table 6** identifies ECB24 cells within the RSM-GL model mesh that transitioned to less than or greater than an average annual discontinuous hydroperiod target of 90 to 210 days over the modeled POR (1965-2016) in CSS-Ax. In CSSS-Ax, the shift went: (1) from 207 to 211 days in ~692 acres (i.e., RSM-GL Cell ID1320) for ALTA; (2) from 209 to 215 days in ~488 acres (i.e., RSM-GL Cell 1427) for ALTA; and (3) from 209 to 2012 days in ~488 acres (i.e., RSM-GL Cell 1427) for ALTAS1. Total potential reductions in marl prairie habitat acreage are equivalent to a decrease of ~1,181 acres under ALTA and ~488 acres under ALTAS1. RSM-GL cell IDs 1320 and 1427 are located in a portion of CSSS-Ax referred to as TdN or the northern expansion area. TdN is where the vegetation inferred discontinuous

hydroperiod has been trending towards a drier condition (Sah et al. 2022, Sah et al. 2024). Reference **Figure 7** for the location of the model cells.

Table 6. Identification of ECB24 cells within the RSM-GL model mesh that transitioned to < or > the average annual discontinuous hydroperiod target of 90-210 days over the modeled POR (1965-2016) under ALTA and ALTAS1.

Subpopulation	ECB24 to ALTA	ECB24 to ALTAS1
CSSS-Ax	RSM-GL Cell ID 1320 Overlap Acreage = ~ 692 Average Annual Discontinuous Hydroperiod Transitions from 207 Days to 211 Days	NA
CSSS-Ax	RSM-GL Cell ID 1427 Overlap Acreage = ~ 488 Average Annual Discontinuous Hydroperiod Transitions from 209 to 215 Days	RSM-GL Cell ID 1427 Overlap Acreage = ~ 488 Average Annual Discontinuous Hydroperiod Transitions from 209 to 212 Days

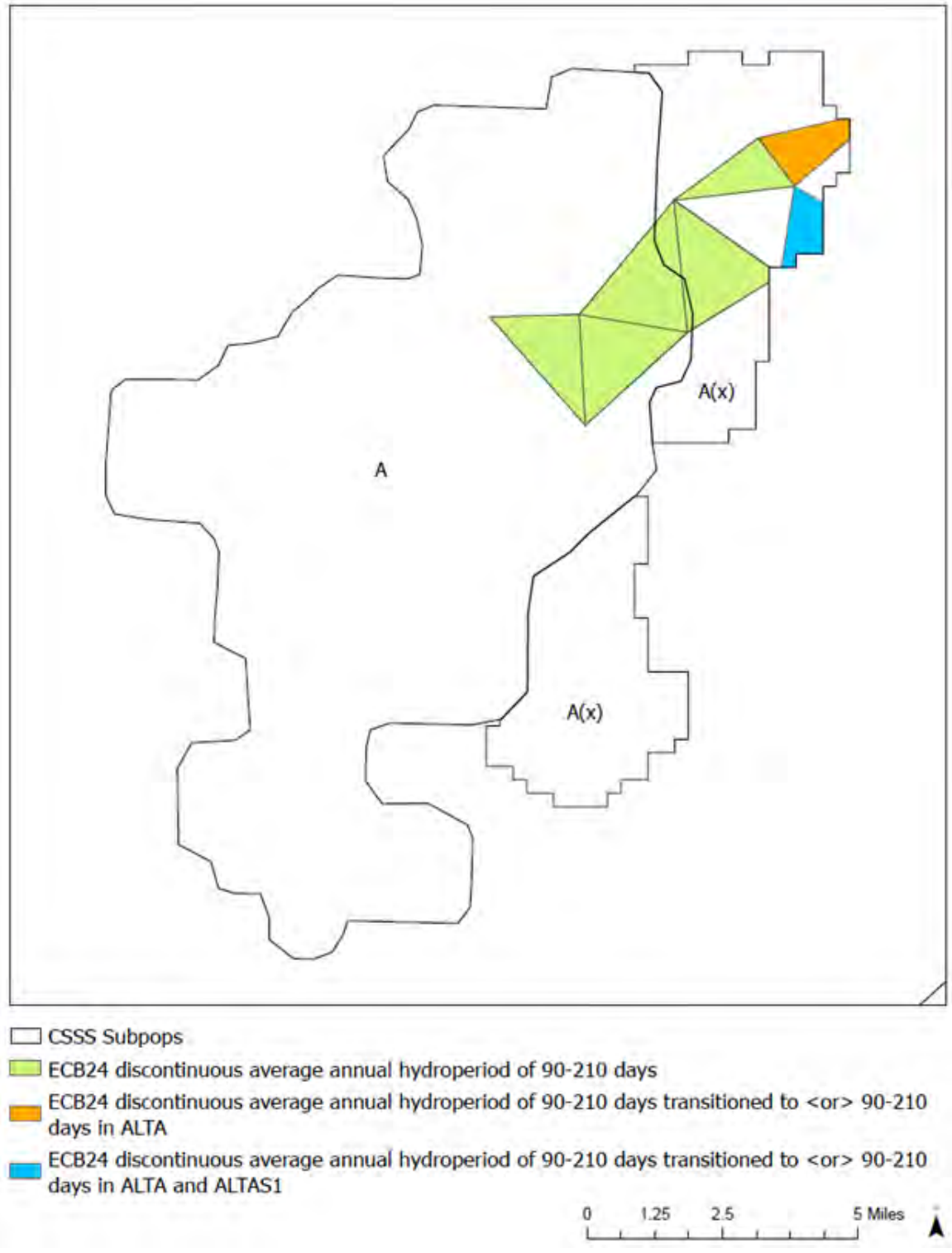


Figure 7. The figure shows the location of ECB24 cells in CSSS-Ax within the RSM-GL model mesh that: (1) met the average annual discontinuous hydroperiod target of 90 to 210 days over the modeled POR (1965-2016); and (2) the location of ECB24 cells that transitioned to < or > the target in ALTA and ALTAS1.

In a technical memorandum provided by the SFWMD to support ALTA Optimized, the SFWMD acknowledged that the spatial effects of changes downstream of S-229A, S-229B, and S-229C indicate that operation of these culverts may have some effects on water levels or hydroperiods in CSSS-Ax. Direct water deliveries toward CSSS-Ax will be reduced relative to ECB24 as increases in flow through S-229A, S-229B, and S-229C reduces time spent in Zone A of the WCA 3A regulation schedule and therefore reduce water deliveries from S-343A, S-343B, S-12A, S-12B, S-12C, and S-12D (**Table 1**). This performance can be seen in the model results in **Figure 8** which indicate reduced stages in the Tamiami Trail canal and reduced flow at S-12A and S-12C during wet condition operation of S-229C when comparisons between ALTA and ECB24 are made. These trends are only displayed for one period (1968 through 1970) in **Figure 8** but are consistent across all modeled time periods and all structures (including S-12B, S-229A, and S-229B).

Despite the reduction in direct inflows into the northern portion of CSSS-Ax, increased stages can be observed at times at gage NP-205 in the model results during operation of S-229A, S-229B, and S-229C. As can be seen in **Figure 9**, during the wet season and higher stage conditions, the western flows from S-229A, S-229B, and S-229C do not significantly change the stage performance at gage NP-205, but during the later dry season and at lower stages, extended hydroperiods can be observed (influenced by the magnitude and duration of operation as shown in comparing ECB24, ALTA and ALTAS1). Again, these trends are only displayed for one period (1968 through 1970) in **Figure 9** but are consistent across all modeled time periods and all structures (including S-229A and S-229B).

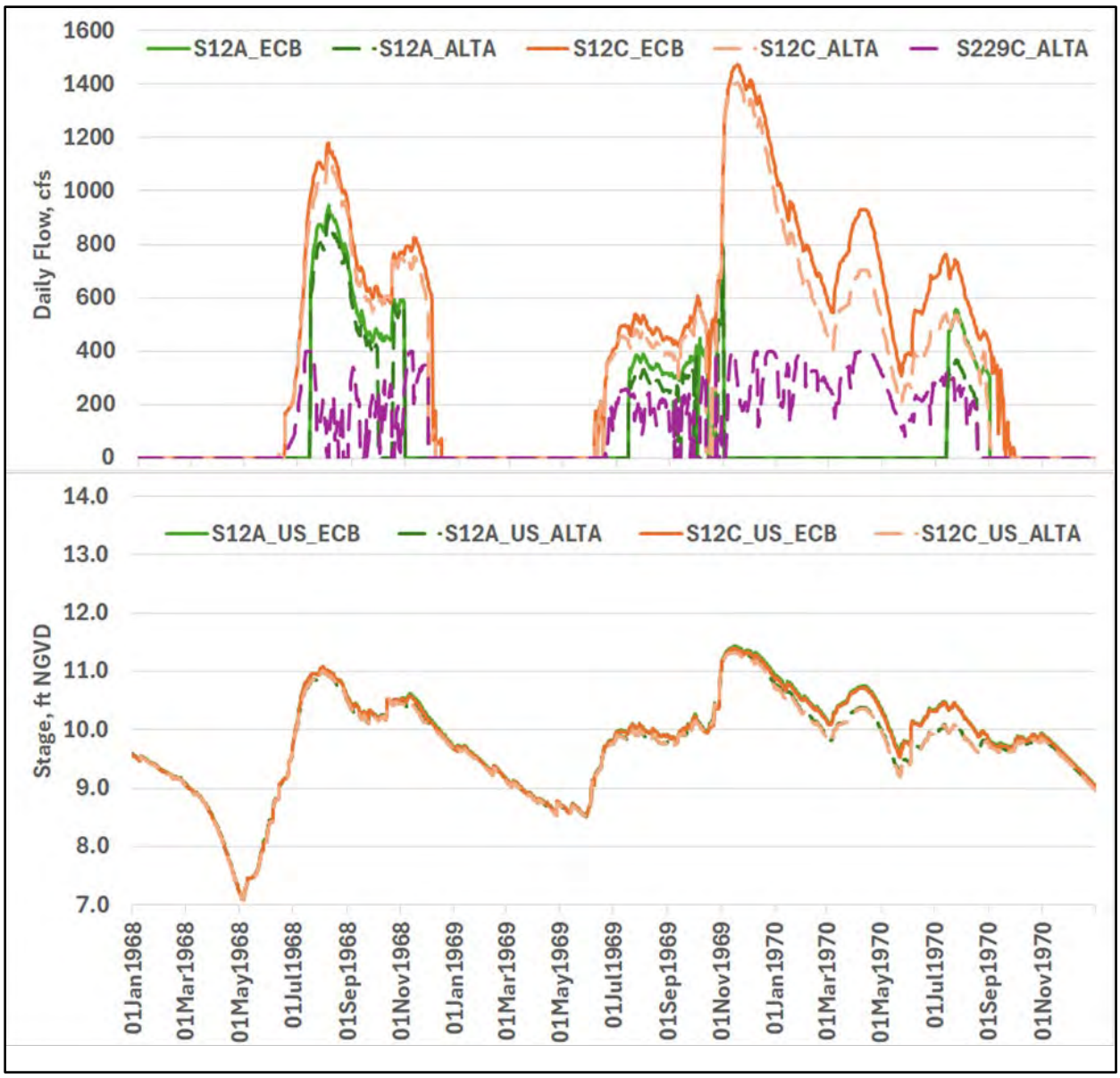


Figure 8. Reduced flow and stages in the vicinity of the S-12s in ALTA relative to ECB24.

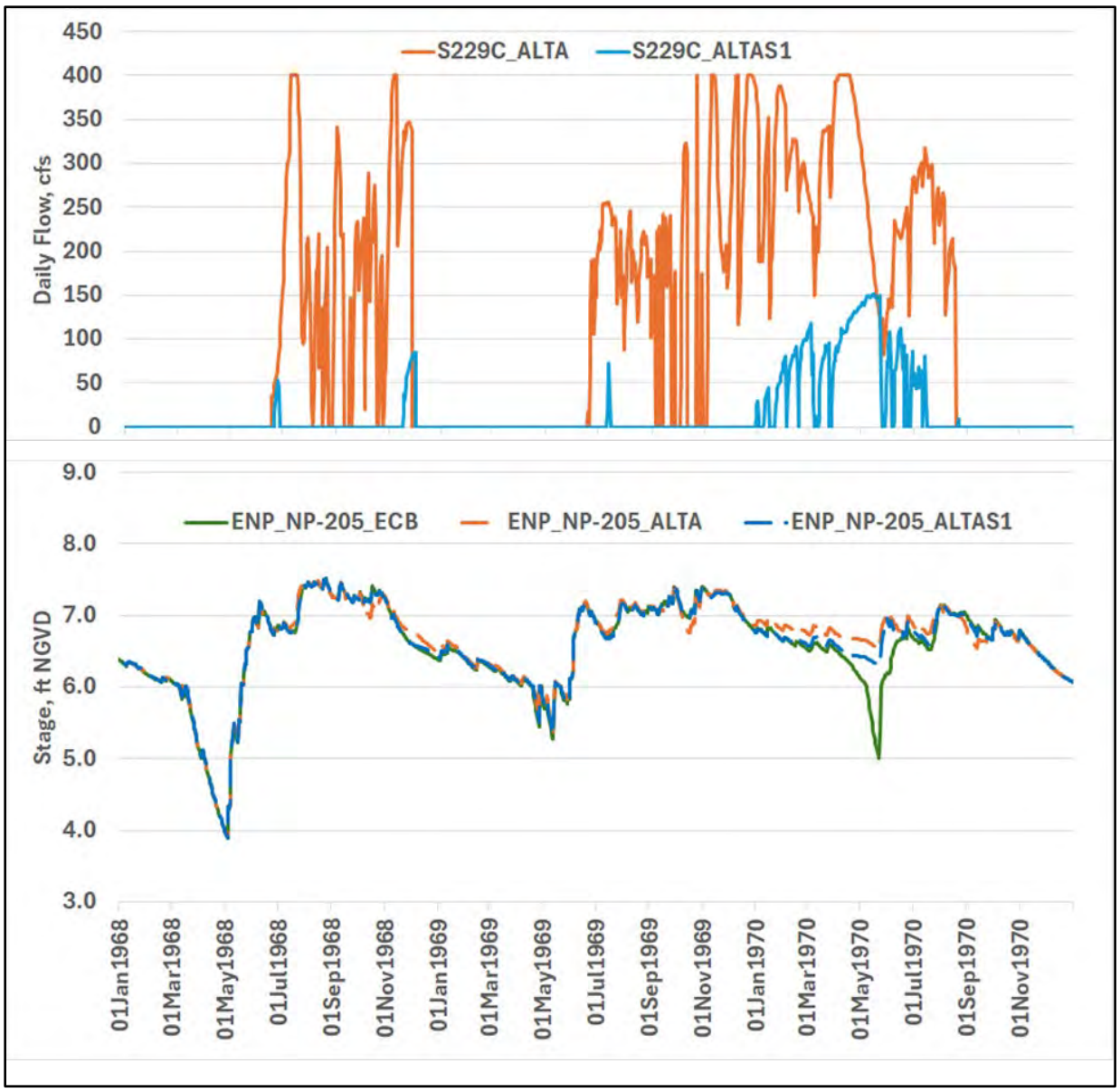


Figure 9. Increased flows and stages at NP-205 in ALTA and ALTAS1 relative to ECB24.

The Corps has determined that ALTA Optimized may affect but is not likely to adversely affect the CSSS due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Hydrologic changes may influence marl prairie habitat and CSSS nesting, particularly in CSSS-Ax, however given the magnitude and duration of change observed between ALTA/ALTAS1 compared to ECB24, adverse effects are not anticipated. The aforementioned USFWS metrics used to evaluate the interim operations plan indicate no difference and/or negligible differences between ALTA/ALTAS1 compared to ECB24, supporting the Corps' determination for the CSSS. Interim operations of the L-28 South culverts is an incremental step toward achieving the

objectives from the 2024 WERP PIR/EIS. The Corps has determined that ALTA Optimized would have no effect on CSSS designated CH, as CH is located east of northeast Shark River Slough (NESRS).

The Corps acknowledges the potential loss of marl prairie habitat in CSSS-Ax within the range of ~1,181 to ~488 acres, as noted above, however, the SFWMD has provided consideration of potential impacts to sparrow conditions in the interim operations plan. The SFWMD has provided a commitment to perform additional information gathering and field reconnaissance to help inform water management decisions. Adverse effects to marl prairie habitat and the CSSS are therefore not expected. Data and tools relevant to monitoring CSSS-Ax--such as water levels from the NP-205 and SPARO gages, along with the U.S. Geological Survey (USGS) CSSS Viewer tool--will be used to inform operational decisions regarding S-229A, S-229B, and S-229C. Modeling conducted to support interim operations did not assume construction of the L-28 South plug (located at the base of the L-28 South levee in the Tamiami Trail canal), but construction of the plug would be a future complementary action that could further protect flow east in the L-29 Canal as envisioned in the authorized WERP.

Furthermore, regularly scheduled *C&SF Water Management Agency Input and Data Collection – Southern System meetings* hosted by the Corps will continue to occur. These meetings provide a forum for interagency dialogue and a means to gather feedback on water management operations throughout the system.

1.4 EVERGLADE SNAIL KITE AND EVERGLADE SNAIL KITE CRITICAL HABITAT

Everglade snail kite habitat consists of freshwater marshes and the shallow vegetated edges of lakes where the apple snail (*Pomacea paludosa*), the Everglade snail kite's main food source, can be found. Snail kites require foraging areas that are relatively clear and open in order to visually search for apple snails. Suitable foraging habitat for the Everglade snail kite is typically a combination of low-profile marsh and a mix of shallow open water. Nesting substrates include small trees such as willow, cypress, and pond apple, and herbaceous vegetation such as sawgrass, cattail, bulrush, and reed. Snail kites move widely throughout the primary wetlands of the central and southern portions of Florida. The snail kite is threatened primarily by habitat loss and destruction.

To evaluate ALTA Optimized, the Corps considered exceedance criteria that was developed for incidental take of Everglade snail kites from the 2020 COP BO at the request of the USFWS. The exceedance criteria are as follows:

(1) *Dry Season High Water*: maximum water levels exceed 9.2 ft. NGVD at gauge 3AS3W1 on or after April 15 in two consecutive years;

(2) *Wet Season High Water*: maximum water levels exceed 10.5 ft, NGVD at gauge 3AS3W1 for 60 days in two consecutive years (June 1 – December 31); and

(3) *Dry Season Amplitude*: WCA 3A stage difference as measured at specific gages should not recede by more than 1.7 ft NGVD from January 1 through May 31 or the onset of the wet season, whichever is sooner as measured in two consecutive years.

High water stages may reduce the abundance, growth, and reproduction of apple snails and reduce woody vegetation that kites use for nesting and perch-hunting. Depending on the amount of lost snail productivity and the initial snail population size, a single year of high water during the dry season can result in long-term impacts to apple snail populations and decrease numbers of snail kite nest initiations, nest success, and juvenile survival in an area, as has been observed in WCA 3A. Rapid recession rates during the breeding season can also result in decreased nest success (through increased predation or decreased forage availability) and decreased juvenile survival (due to decreased forage availability) (USFWS 2020). **Table 7** shows the number of times (i.e., individual years) in the modeled POR (1965-2016) when the aforementioned criteria were exceeded. ALTA decreased the number of times the *Dry Season High Water* criteria was exceeded compared to ECB24 by one while ALTAS1 performed the same as ECB24. ALTA decreased the number of times the *Wet Season High Water* criteria was exceeded by two compared to ECB24 while ALTAS1 performed the same as ECB24. With respect to the *Dry Season Amplitude* criteria, performance of ALTA and ALTAS1 were the same as ECB24 at each gage.

Table 7. Number of times (i.e., individual years) the criteria for the Everglade snail kite from the 2020 COP BO were not met for ECB24, ALTA, and ALTAS1 for each year during the modeled POR (1965-2016).

Metric	ECB24	ALTA	ALTAS1
Dry Season High Water	13	12	13
Wet Season High Water	12	10	12
Recession: Dry Season Amplitude Gage 3AS3W1	7	7	7
Recession: Dry Season Amplitude Gage W2	12	12	12
Recession: Dry Season Amplitude Gage 3A28	13	13	13
Recession: Dry Season Amplitude Gage 3A4	7	7	7

In addition to the exceedance criteria that was developed as a surrogate for incidental take of the Everglade Snail kite, the Corps also evaluated the recession rate recommendations for snail kites from the Multi-Species Transition Strategy (MSTS):

Performance Measure D (PM-D) Snail Kites – Dry Season Recession: Strive to maintain a recession rate of 0.05 ft per week from January 1 to June 1 (or the onset of the wet season). This equates to a stage difference of approximately 1.0 ft between January and the dry season low. The Service defined the onset of the wet season as a sustained increase in water levels associated with increased rainfall frequency, which has occurred

prior to June 1 over 50 percent of the time since 1965. The recession rate guideline is most important to follow during the peak snail kite breeding season (March-June). Recession rates > 0.5 ft but < 0.10 ft per week, while generally more rapid than desired, may be considered acceptable under certain environmental conditions (e.g. unseasonable heavy rainfall). Rates > 0.0 and < 0.05 ft per week are not associated with direct negative impacts to nesting snail kites, although rates approaching 0.0 ft may result in delayed or reduced snail egg cluster production, depending on water depths at that time (i.e., greater impacts when water is > 40 cm deep).

Table 8 lists the percent of time in the modeled POR (1965-2016) that weekly recession rates (i.e., 7-day recession rate during the period of January 1 to June 1) as measured by the WCA 3A 3-station avg. fell within an optimum range of 0.05 ft/week according to the USFWS MSTS stoplight key for the Everglade snail kite. The difference compared to ECB24 is also shown. Recession rates were within the optimum range 6.50% of the time for ECB24. Recession rates were within the optimum range for ALTA and ALTAS1 5.80% and 6.10% of the time in the modeled POR (1965-2016), a -0.7% and -0.4% decrease compared to ECB24.

Table 8. Percent of time in the modeled POR (1965-2016) that weekly recession rates (i.e., 7-day recession rate) during the period of January 1 to June 1) as measured by the WCA 3A 3 station average fell within an optimum range of 0.05 ft/wk. Values provided by USFWS November 24, 2025.

ECB24	ALTA (Difference ALT-ECB24)	ALTAS1 (Difference ALT-ECB24)
6.50%	5.80% (-0.7%)	6.10% (-0.4%)

Field studies and mesocosm studies of apple snails have indicated that the highest apple snail egg production consistently occurs at water depths between 20 to 50 centimeters (cm) (Darby 2015). Once water levels drop below approximately 10 cm apple snails stop moving (and reproducing), remaining stranded near the ground surface until water levels rise again (Darby et al. 2002, Darby et al. 2008). The Corps evaluated the above thresholds to further understand potential effects on apple snail production at the request of the USFWS. **Table 9** shows the % of time and the number of days that water depths are between the apple snail target range of 20 to 50 cm from March 1 to June 30 in the modeled POR (1965-2016) at the WCA 3A 3-station avg. and at gages 3AS3W1 and NESRS1. ALTA and ALTAS1 increased the % of time by no more than +0.9% across the gages. **Table 10** shows the % of time and number of days that water depths are below the apple snail minimum reproduction threshold of 10 cm from March 1 to October 1 in the modeled POR (1965-2016) at the WCA-3A 3-station avg. and at gages 3AS3W1 and NESRS1. Only slight increases or decreases occurred. The predicted change for ALTA and ALTAS1 compared to ECB24 was less than +/- 0.2% at all gages.

Table 9. % of time and the number of days that water depths are between the apple snail target range of 20 to 50 cm from March 1 to June 30 as modeled during the POR (1965-2016).

Gage	ECB24 (Difference ALT-ECB24)	ALTA (Difference ALT-ECB24)	ALTAS1 (Difference ALT-ECB24)
WCA 3A 3-station avg.	33.8% 6,418 Days	34.7% (+0.9%) 6,583 Days	34.1% (+0.3%) 6,483 Days
3AS3W1	38.0% 7,211 Days	38.9% (+0.9%) 7,379 Days	38.3% (+0.3%) 7,281 Days
NESRS1	33.9% 6,448 Days	34.4% (+0.5%) 6,527 Days	34.0% (+0.1%) 6,458 Days

Table 10. % of time and the number of days that water depths were below the apple snail reproduction minimum depth threshold of 10 cm from March 1 to October 1 as modeled during the POR (1965-2016).

Gage	ECB24 (Difference ALT-ECB24)	ALTA (Difference ALT-ECB24)	ALTAS1 (Difference ALT-ECB24)
WCA 3A 3-station avg.	25.7% 4,890 Days	25.9% (+0.2%) 4,922 Days	25.8% (+0.1%) 4,892 Days
3AS3W1	10.3% 1,951 Days	10.3% (0.0%) 1,957 Days	10.2% (-0.1%) 1,943 Days
NESRS1	7.7% 1,460 Days	7.8% (+0.1%) 1,472 Days	7.7% (0.0%) 1,463 Days

Information for gage W2 was not available for the metrics summarized in **Table 9** and **Table 10**, however **Figure 10** shows ponding duration and a ponding hydrography for gage WCA3_W2 for ECB24, ALTA, and ALTAS1. Gage WCA3_W2 is located in snail kite CH in southwestern WCA 3A. Negligible differences were observed when comparing ALTA/ALTAS1 to ECB24. ALTA/ALTAS1 marginally raised groundwater and surface stages at this location.

Snail kites are most likely to initiate nests in WCA 3A when water levels at the 3-station avg. are between 9.3 and 10.2 ft NGVD from January 1 to June 15 (Fletcher et al. 2021). Nest initiation in WCA 3A is highest when water levels are between 9.5 to 11.0 ft around February 1 and declining to 9.0 to 10.0 ft by May 1. Water levels above 9.0 ft. through the dry season have been associated with higher nest survival (Fletcher et al. 2017). The

Corps evaluated the above thresholds to further understand potential effects on nest initiation at the request of the USFWS.

Table 11 shows the number of times the nest initiation stage targets at the WCA 3A 3-staion avg. were met across the modeled POR (1965-2016). ALTA and ALTAS1 performed the same as ECB24. The target was only met in 9/52 years.

Table 11. Number of times (i.e., individual years) the Everglade snail kite nest initiation target of stages at the WCA 3A 3-station avg. starting at 9.5 to 11.0 ft NGVD on February 1 and declining to 9.0 to 10.0 ft by May 1 as modeled by RSM-GL across the POR (1965-2016) was met.

ECB24	ALTA	ALTAS1
9	9	9

The Corps has determined that ALTA Optimized may affect but is not likely to adversely affect the Everglade snail kite and its designated CH in WCA 3A due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Hydrologic changes may influence apple snail production and Everglade snail kite foraging as well as nesting, however given the magnitude and duration of change observed between ALTA/ALTAS1 compared to ECB24, adverse effects are not anticipated. The aforementioned USFWS metrics used to evaluate the interim operations plan, indicate no difference and/or negligible differences between ALTA/ALTAS1 compared to ECB24, supporting the Corps' determination for the Everglade snail kite and its designated CH. Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP Final PIR/EIS.

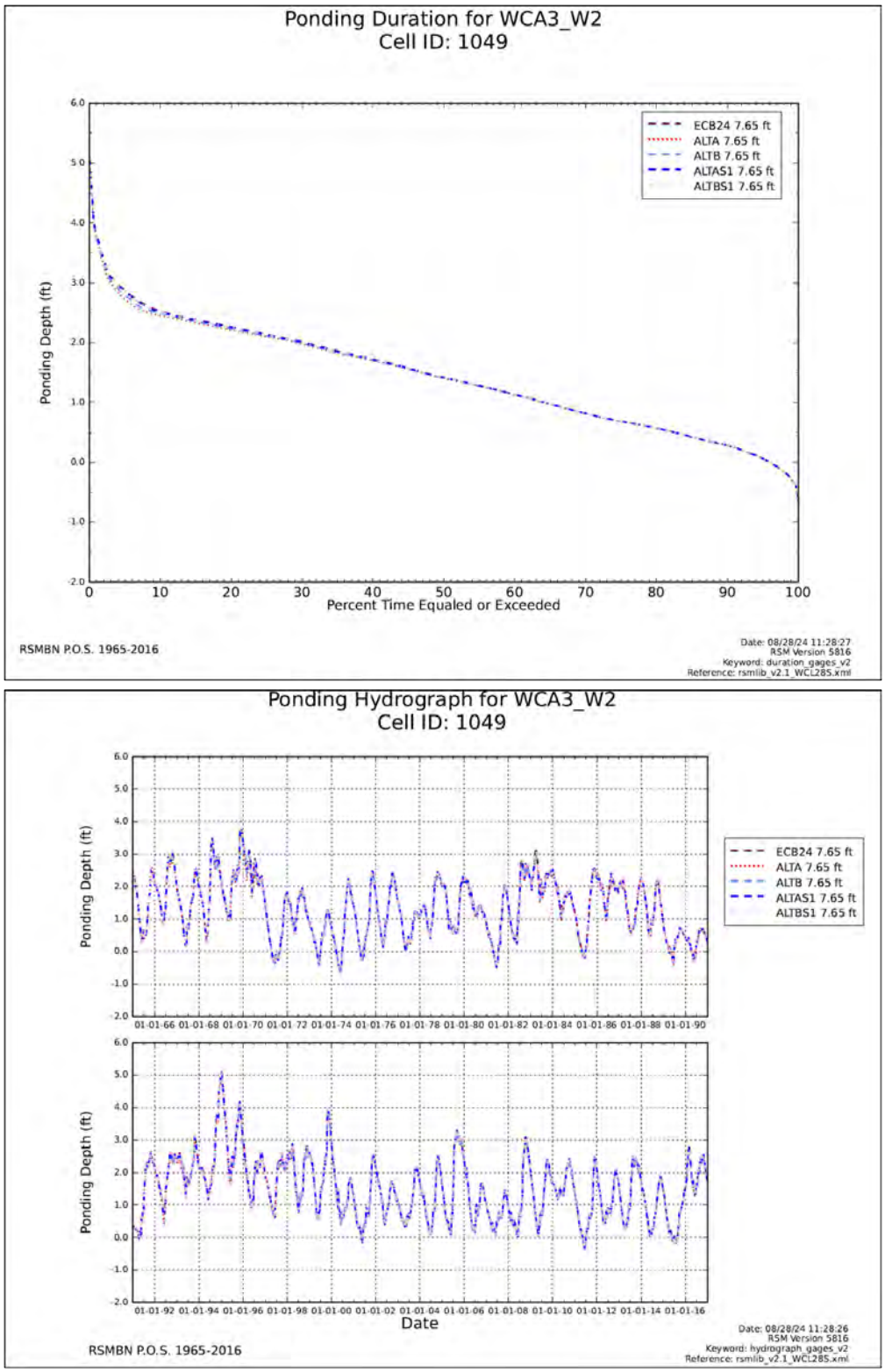


Figure 10. Ponding duration (top graphic) and ponding hydrograph (bottom graphic) for gage WCA3_W2.

1.5 WOOD STORK

The wood stork is a large, white, long-legged wading bird that relies upon shallow, freshwater wetlands for foraging. Typical foraging sites include freshwater marshes, ponds, hardwood and cypress swamps, narrow tidal creeks or shallow tidal pools, and artificial wetlands such as stock ponds, shallow, seasonally flooded roadside or agricultural ditches, and managed impoundments (Coulter et al. 1999, Coulter and Bryan 1993, Herring and Gawlik 2007). During nesting, these areas must also be sufficiently close to the colony to allow wood storks to efficiently deliver prey to nestlings. The primary cause of the wood stork population decline in the United States is loss of wetland habitats or loss of wetland function resulting in reduced prey availability. Wood stork nesting habitat consists of mangroves, cypress, and various other live or dead shrubs or trees located in standing water (swamps) or on islands surrounded by relatively broad expanses of open water (Palmer 1962, Rodgers et al. 1987, Ogden 1991, Coulter et al. 1999). Wood storks nest colonially, often in conjunction with other wading bird species. The following wood stork colonies are currently located adjacent to the L-28 South levee, or south of US41: (1) L-28 Gap; (2) L-28 Crossover South; (3) WCA13; (4) Jetport; (5) Jetport South; (6) Clyde Butcher; and (7) Big Cypress Mitchell Landing.

To evaluate ALTA Optimized, the Corps considered exceedance criteria that was developed for incidental take of wood storks from the 2020 COP BO at the request of the USFWS. Under the 2020 COP BO, reinitiation of consultation is required if operations under COP result in water depths greater than 16 inches (41 cm) from March 1 through May 31 throughout WCA 3A for two consecutive years, as measured by the two gage average (based upon a ground surface elevation of 8.4 ft NGVD) at gages 3A-3 (Site 63) and 3A-4 (Site 64) (USFWS 2020). The annual hydrologic pattern in south Florida is consistent, with water levels rising during the wet season (June through October), then receding gradually during the dry season (November to May). Wood storks nest during the dry season and rely on the drying wetlands to concentrate or aggregate prey items such as fish for optimal foraging. Once the wetland has dried to where water levels are near the ground surface, the area is no longer suitable for wood stork foraging and will not be suitable again until water levels rise, and the area is repopulated with fish. Wood storks prefer calm water, approximately two to 16 inches deep and free of dense vegetation for foraging (Coulter and Bryan 1993). A water depth greater than 16 inches (41 cm) across WCA 3A during the nesting season would lower the suitability of foraging habitat to the point where the ability for wood storks to forage would be severely impaired and most likely result in widespread abandonment of nests and fledglings within the affected colony (USFWS 2020). **Table 12** shows the number of times in the modeled POR (1965-2016) when water depths exceeded 16 inches (41 cm) throughout WCA 3A as measured by the two gage average (based upon a ground surface elevation of 8.4 ft NGVD) at gages 3A-3 (Site 63) and 3A-4 (Site 64) for the months of March, April, and May for ECB24, ALTA, and ALTAS1. ALTA and ALTAS1 performed the same as ECB24, each with a total of 34 exceedances.

Table 12. Number of times in the modeled POR (1965-2016) when water depths exceed 16 inches (41 cm) throughout WCA 3A as measured by the two-gage average (based upon ground surface elevation of 8.4 ft NGVD at gage 3A-3 and 3A-4) for the months of March, April, and May.

Month	ECB24	ALTA	ALTAS1
March	17	17	17
April	11	11	11
May	6	6	6
Total	34	34	34

The Corps also evaluated the following PMs from the 2020 COP BO at the request of the USFWS to further understand potential effects to foraging habitat as a result of water depths and recession rates:

- PM-G: WCA-3A (Dry Season): Maintain areas of appropriate foraging depths (5 to 25 cm) within the Core Foraging Area (CFA) (18.6-mile radius) of any active wood stork colony
- PM-F: WCA 3A (Dry Season Recession Rate): Maintain a recession rate of 0.07 ft/week, with an optimal range of 0.06 to 0.07 ft/week from January 1 to June 1

Wood storks are known to forage in a 360-degree radius of 30 kilometers (km) (18.6 statute miles) from an active colony (USFWS 2010 and Cox et al. 1994). The optimal water depth for wood storks is 5 to 25 cm with suboptimal dry water depths ranging from -9 to 4 cm and suboptimal wet water depths ranging from 26 to 40 cm (USFWS 2010; Beerens and Cook, unpublished report 2010). **Table 13** lists the % of time in the modeled POR (1965-2016) that foraging depths measured at gages 3A-3 (Site 63), 3A-4 (Site 64), 3ASWB, WCA3AW11, 3AS3W1, WCA3AW2, EDEN13, 3BS1W1, and NESRS2 fell within an optimum range of 5 to 25 cm for PM-G. ALTA and ALTAS1 generally maintained the % of time in the modeled POR (1965-2016) that foraging depths fell within the optimum range at the aforementioned gages. Only slight increases or decreases occurred compared to ECB24. The predicted change for ALTA and ALTAS1 compared to ECB24 was less than +/- 0.5% at all gages.

Table 14 lists the % of time in the modeled POR (1965-2016) that weekly recession rates (i.e., 7-day recession rate during the period of January 1 to June 1) as measured by the WCA 3A 3-station avg. fell within an optimum range of 0.06 to 0.07 ft/week for PM-F. A recession rate of 0.07 ft/week, with an optimal range of 0.06 to 0.07 ft/week, is recommended from January 1 to June 1 to provide foraging opportunities for breeding wood storks (USFWS 2020). Without the supply of concentrated prey that results from dry season recessions, adult wood storks are unable to support their offspring. Recession rates were within the optimum range 18.40% of the time for ECB24. Recession rates were within the optimum range for ALTA and ALTAS1 19.00% and 18.60% of the time in the modeled POR (1965-2016), a +0.6% and +0.2% increase compared to ECB24.

Table 13. PM-G: % of time in the modeled POR (1965-2016) that foraging depths as measured at gages 3A-3 (Site 63), 3A-4 (Site 64), WCA3AW11, 3AS3W1, WCA3AW2, EDEN13, 3BS1W1, and NESRS2 fell within an optimum range of 5 to 25 cm.

Gage	ECB24	ALTA (Difference ALT-ECB24)	ALTAS1 (Difference ALT-ECB24)
3A-3 (Site 63)	21.2%	21.5% (+0.3%)	21.3% (-0.2%)
3A-4 (Site 64)	28.9%	29.1% (+0.2%)	28.9% (0.0%)
WCA3AW11	32.8%	33.2% (-0.4%)	32.9% (+0.1%)
3AS3W1	23.8%	23.9% (+0.1%)	23.8% (0.0%)
WCA3AW2	23.1%	23.2% (+0.1%)	23.1% (0.0%)
EDEN13	11.4%	11.4% (0.0%)	11.4% (0.0%)
3BS1W1	21.9%	22.0% (+0.1%)	21.9% (0.0%)
NESRS2	9.4%	9.4% (0.0%)	9.3% (-0.1%)

Table 14. PM-F: % of time in the modeled POR (1965-2016) that weekly recession rates (i.e., 7-day recession rate during the period of January 1 to June 1) as measured by the WCA 3A 3 station average fell within an optimum range of 0.06 to 0.07 ft/wk. Values provided by USFWS November 24, 2025.

ECB24	ALTA (Difference ALT-ECB24)	ALTAS1 (Difference ALT-ECB24)
18.40%	19.00% (+0.6%)	18.60% (+0.2%)

The hydroperiod of a wetland can affect the prey densities in a wetland. Research of Everglades fish populations using a variety of quantitative sampling techniques (pull traps, throw traps, block nets) has shown that the density of small forage fish increases with hydroperiod. The Corps evaluated PM-2 from the 2020 COP BO within CFAs of active wood stork colonies from 2013 to 2022 at the request of the USFWS to further understand potential effects to foraging habitat as a result of hydroperiods:

- PM-2: Maintain sufficient short hydroperiod wetlands for wood stork foraging

With respect to PM-2, the USFWS describes a short hydroperiod wetland as a wetland with between 0 and 180 days of inundation per year and a long hydroperiod wetland as a wetland with greater than 180 days of inundation per year (USFWS 1999). **Figure 11** and **Figure 12** shows the difference in average annual hydroperiod between ALT1 and ECB24 and ALTAS1 and ECB24 as modeled across the POR (1965-2016) within the CFAs (e.g., dark black line) of active wood stork colonies from 2013 to 2022. Coloration is used to depict areas that experienced a change in hydroperiod. An estimated 4,359 and 492 acres of short hydroperiod wetlands with an average annual hydroperiod of less than 180 days under ECB24 were observed to be inundated for more than 180 days under

ALTA and ALTAS1. The annual conversion of short hydroperiod to long hydroperiod wetlands may result in the loss in nest production of nestlings. Per the USFWS 2010 *Wood Stork Effects Determination Key* and the USFWS 2012 *Wood Stork Foraging Habitat Assessment Methodology*, short hydroperiod wetlands may provide a more important pre-nesting foraging food source and a greater early nestling survivor value for wood storks than the foraging base (grams of fish per square meter) that long hydroperiod wetlands provide (Flemming et al. 1994, Ceilley and Bortone 2000). Although the short hydroperiod wetlands may provide less fish, these prey bases historically were more extensive and met the foraging needs of the pre-nesting storks and the early-age nestlings. Nest productivity may suffer because of the loss of short hydroperiod wetlands and therefore impacts to short hydroperiod wetlands within CFAs should be avoided (USFWS 2010). That being said, within the Everglades, wood storks generally feed in the shallow water of short hydroperiod wetlands during the wet season after which foraging shifts to long hydroperiod wetlands during the dry season. ALTA Optimized may produce a variety of wetland habitats that would support conditions conducive to successful wood stork foraging and nesting.

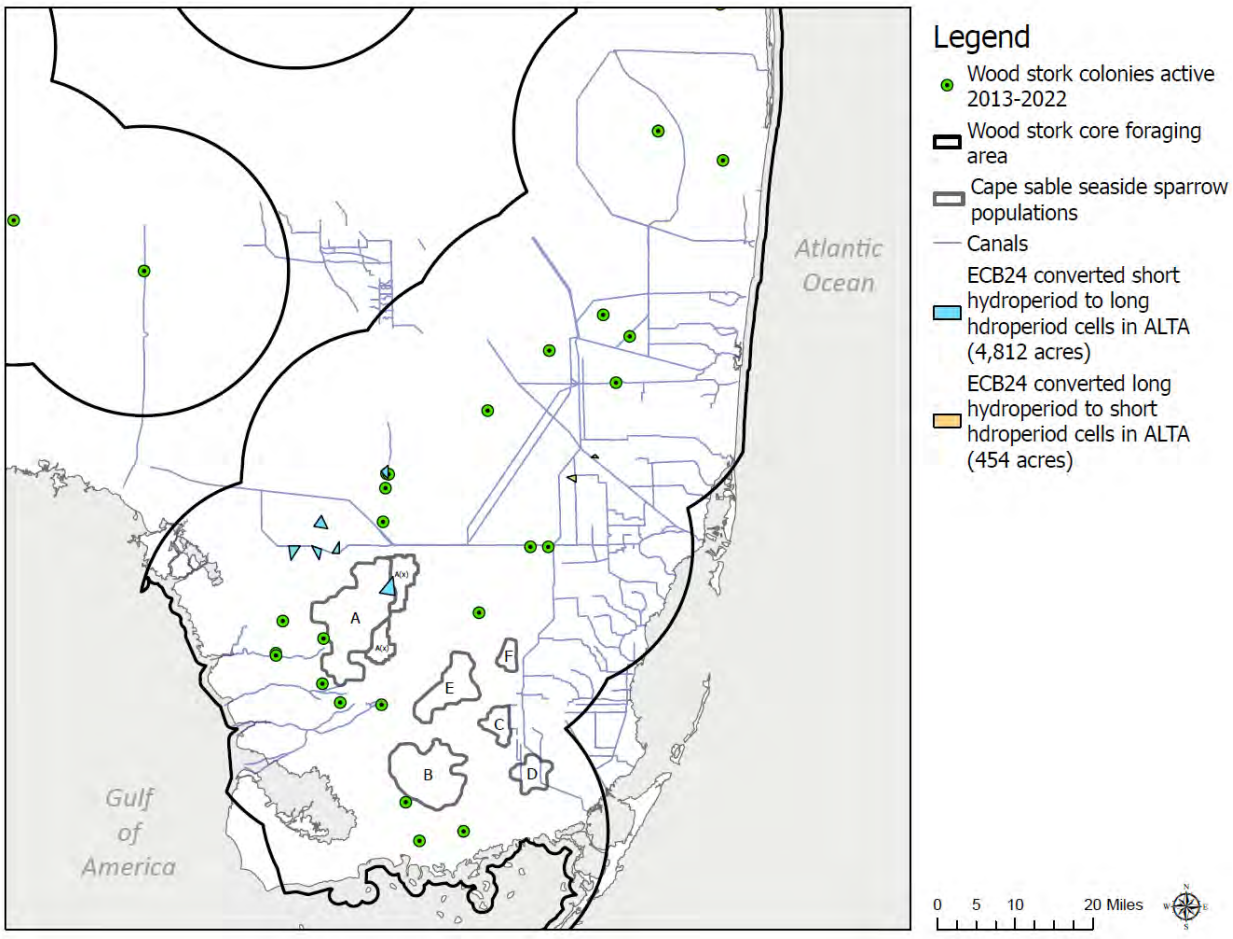


Figure 11. Difference in average annual hydroperiod between ECB24 and ALTA from 1965-2016 illustrating acreage converted from long hydroperiod to short hydroperiod wetlands and vice versa in nesting colonies of the wood stork in the project area. Green points represent active wood stork colonies. The black boundary represents CFAs from 2013-2022. Graphic provided by USFWS December 4, 2025.

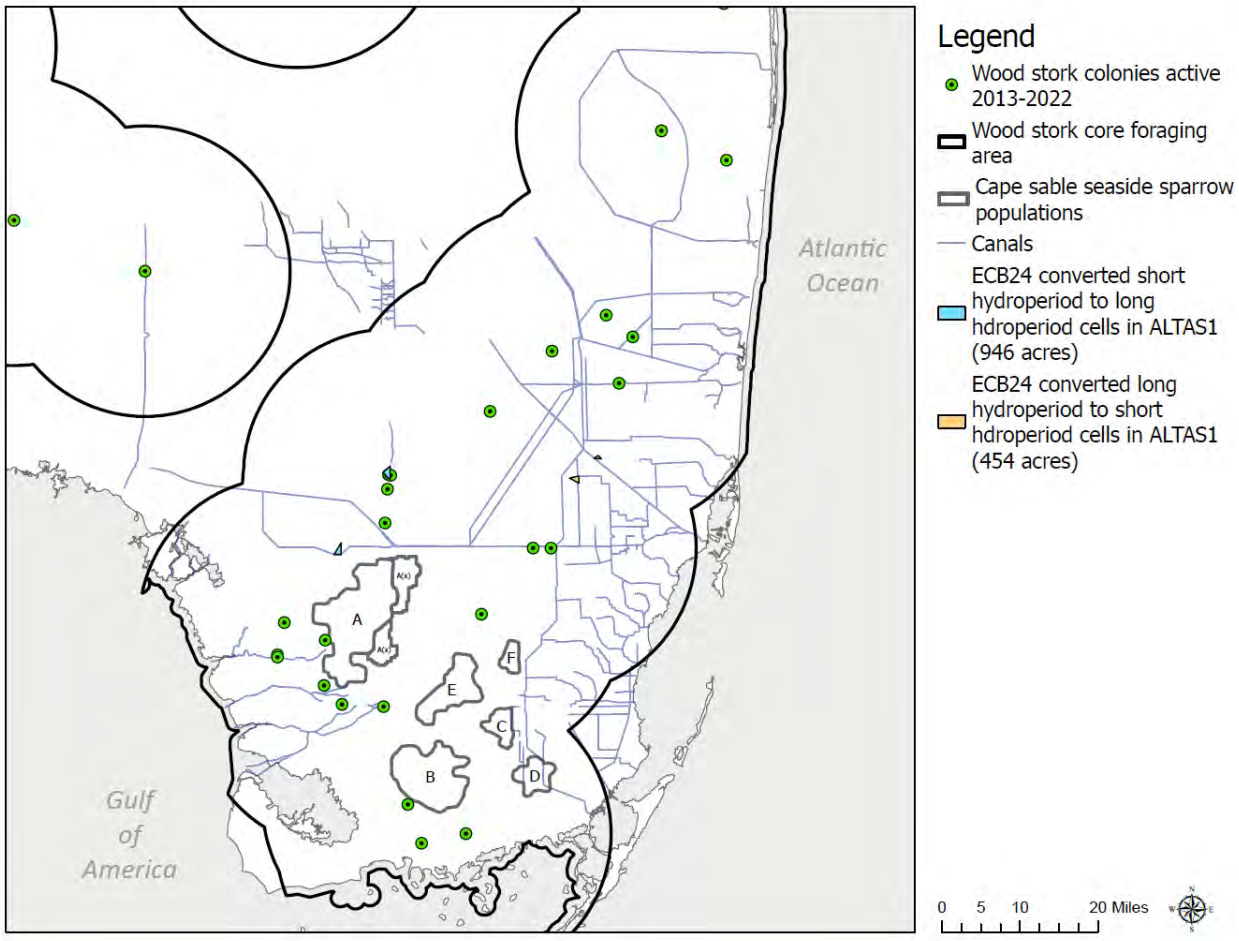


Figure 12. Difference in average annual hydroperiod between ECB24 and ALTAS1 from 1965-2016 illustrating acreage converted from long hydroperiod to short hydroperiod wetlands and vice versa in nesting colonies of the wood stork in the project area. Green points represent active wood stork colonies. The black boundary represents CFAs from 2013-2022. Graphic provided by USFWS December 4, 2025.

The Corps also evaluated average annual hydrologic effects on hydroperiod and wood stork prey biomass between ECB24 and ALTA and ECB24 and ALTAS1 per the methodology outlined in Appendix A of the 2020 COP BO (*Wood Stork Foraging Habitat Assessment Methodology dated July 12, 1012*). The total nesting period for wood storks, from courtship and nest-building through the independence of young, lasts about 100 to 120 days (Coulter et al. 1999). The average wood stork family requires 201 kilograms (kg) of fish, crustaceans, and other prey during the breeding season with 50% of the nestlings' food requirement occurring during the middle third of the nestling period (Kahl 1964). It is estimated that about 50 kg of food are needed to meet the foraging requirements of the adults and nestlings in the first third of the nesting cycle when wood storks are most likely foraging in short hydroperiod wetlands. Hydrologic model output from the POR (1965-2016) was used to determine the acres in each hydroperiod class

shown in **Table 15** and **Table 16** for ECB24, ALTA, and ALTAS1. Wood stork prey biomass (kg) was then calculated for each hydroperiod class using the methodology defined in Appendix A of the 2020 COP BO. The difference in acreage was then calculated for each alternative compared to ECB24 for each hydroperiod class as well as the difference in wood stork prey biomass (kg). The net overall change is an estimated 8,308 kg of prey biomass available for wood stork foraging under ALTA. There is an estimated net decrease of -8,841 kg of short hydroperiod biomass and an estimated net increase of 17,149 kg of long hydroperiod biomass under ALTA (**Table 15**). The net overall change is an estimated 4,891 kg of prey biomass available for wood stork foraging under ALTAS1. There is an estimated net decrease of -1,816 kg of short hydroperiod biomass and an estimated net increase of 6,707 kg of long hydroperiod biomass under ALTAS1 (**Table 16**). Even though the overall net change in biomass is positive for both ALTA and ALTAS1, a decrease to short hydroperiod biomass may be significant due to potential effects on pre-nesting foraging food sources, early next survivorship, and nest productivity of wood storks (Fleming et al. 1994, Ceilley and Borotone 2000).

Table 15. Estimate of average annual hydrologic effects on hydroperiod and wood stork prey biomass between ECB24 and ALTA. Data provided by USFWS December 1, 2025.

Hydroperiod Class (Days)	ECB24 Acres	ECB24 Biomass (kg)	ALTA Acres	ALTA Biomass (kg)	Change Acres (ALTA-ECB24)	Change Biomass (kg) (ALTA-ECB24)
1 (0-60)	824,230	336,057	824,535	336,181	305	124
2 (60-120)	59,865	48,816	60,810	49,587	945	771
3 (120-180)	109,954	190,892	104,346	181,156	-5,608	-9,736
4 (180-240)	211,421	650,679	206,740	636,273	-4,681	-14,406
5 (240-300)	473,245	1,823,713	484,495	1,867,067	11,250	43,354
6 (300-330)	474,991	2,099,073	478,491	2,114,540	3,500	15,467
7 (330-365)	1,047,781	5,002,419	1,042,070	4,975,153	-5,711	-27,266
Short (0 to 180)	994,050	575,765	989,691	566,924	-4,359	-8,841
Long (180 to 365)	2,207,438	9,575,884	2,211,797	9,593,033	4,359	17,149
Total*	3,201,488	10,151,649	3,201,488	10,159,957	32,000*	8,308

*The total is the sum of the individual changes within each hydroperiod and notes that some changes may be positive whereas others may be negative.

Table 16. Estimate of average annual hydrologic effects on hydroperiod and wood stork prey biomass between ECB24 and ALTAS1. Data provided by USFWS December 1, 2025.

Hydroperiod Class (Days)	ECB24 Acres	ECB24 Biomass (kg)	ALTAS1 Acres	ALTAS1 Biomass (kg)	Change Acres (ALTAS1-ECB24)	Change Biomass (kg) (ALTAS1-ECB24)
1 (0-60)	824,230	336,057	824,230	336,057	0	0
2 (60-120)	59,865	48,816	60,908	49,667	1,044	851
3 (120-180)	109,954	190,892	108,418	188,225	-1,536	-2667

Hydroperiod Class (Days)	ECB24 Acres	ECB24 Biomass (kg)	ALTAS1 Acres	ALTAS1 Biomass (kg)	Change Acres (ALTAS1-ECB24)	Change Biomass (kg) (ALTAS1-ECB24)
4 (180-240)	211,421	650,679	205,122	631,293	-6,299	-19,385
5 (240-300)	473,245	1,823,713	479,596	1,848,187	6,350	24,473
6 (300-330)	474,991	2,099,073	476,359	2,105,118	1,368	6,045
7 (330-365)	1,047,781	5,002,419	1,046,854	4,997,993	-927	-4,426
Short (0 to 180)	994,050	575,765	993,556	573,949	-492	-1,816
Long (180 to 365)	2,207,438	9,575,884	2,207,931	9,582,591	492	6,707
Total	3,201,488	10,151,649	3,201,488	10,156,540	17,524*	4,891

*The total is the sum of the individual changes within each hydroperiod and notes that some changes may be positive whereas others may be negative.

The Corps has determined that ALTA Optimized may affect but is not likely to adversely affect the wood stork due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Hydrologic changes may influence prey production and wood stork foraging as well as nesting, however given the magnitude and duration of change observed between ALTA/ALTAS1 compared to ECB24, adverse effects are not anticipated. The aforementioned USFWS metrics used to evaluate the interim operations plan, indicate no difference and/or negligible differences between ALTA/ALTAS1 compared to ECB24, supporting the Corps' determination for the wood stork. Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP Final PIR/EIS.

1.6 EASTERN BLACK RAILS

Eastern black rails are a small, secretive, marsh bird that are rarely seen and rarely heard. Eastern black rails occur in a variety of fresh, brackish, and saltwater marshes with clumping grass, rushes, or sedges and are known to occur throughout the Everglades. The dense vegetation creates an over-arching canopy that is somewhat open at the base of the clumps where eastern black rails can move around under the overhead cover. Eastern black rails are rarely seen in flight and will walk or run throughout marsh habitats along narrow paths created by rodents (USFWS 2024). The vegetation species is apparently not important, but the structure of the vegetation is important to black rails. In central Florida, typical habitat includes wet prairies and ephemeral marshes with mixed grasses and herbaceous species; around Lake Okeechobee eastern black rails use sand cordgrass, and in the Everglades, sawgrass and possibly muhly grass. Nesting occurs from mid-March through August, and the species construct their nests on or near the ground in very dense vegetation, over water or moist soil, or in shallow water (Watts 2022). Within the action area, eastern black rails may use marsh habitats. Populations within BCNP have not been well documented, however eastern black rails have been documented to occur in WCA 3.

The Corps has determined that ALTA Optimized may affect, but is not likely to adversely affect the eastern black rail due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Hydrologic changes may increase and/or decrease ponding depths and hydroperiods in areas where these eastern black rails may occur. While potential hydrologic changes may influence hydropatterns and habitat throughout portions of the action area, these changes are not expected to preclude this species from occupying these areas or other areas where hydrologic conditions are not expected to occur. Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP Final PIR/EIS.

1.7 EVERGLADES BULLY, FLORIDA PINELAND CRABGRASS, FLORIDA PRARIE CLOVER

The Everglades bully, Florida pineland crabgrass, and Florida prairie-clover most commonly occur along the ecotone between pinelands and prairie, with some overlap into the two ecosystems. These plants typically grow in habitats that see inundation for one to several months each year (USFWS 2024). These plants rely on open canopy conditions and a calcareous limestone substrate that varies from nearly bare to thin layers or small pockets of shallow soil to provide suitable growing conditions. Additionally, these plants rely on sparse competition and periodic disturbance to thrive and persist (Ross and Ruiz 1996; Bradley and Saha 2009). This combination of ecosystem characteristics occurs only in pine rockland habitats, as opposed to rockland hammock habitats with a closed canopy, and marl prairie habitats (87 FR 62564, October 14, 2022). These habitats are maintained by periodic fires, which are important for maintaining healthy populations of the plants for both the removal of overstory hardwoods and the removal of accumulated litter (USFWS 2017).

During ESA consultation for the WERP, the USFWS determined that a maximum allowable threshold for increased hydroperiod of no more than 30 days and increased depth of no more than 2 inches would result in insignificant or discountable impacts to the aforementioned species based on known population data in BCNP. The 2024 WERP BO indicated that there were no known populations of the Everglades bully, Florida pineland crabgrass, or Florida prairie-clover that would exceed these thresholds for hydroperiod and increased depth as a result of the project. The Everglades bully occurs generally along the southern portion of BCNP, between US41 and Loop Road. Other populations are known to occur south and west of Loop Road (USFWS 2024). The Florida pineland crabgrass occurs generally along the southern portion of BCNP, south and west of Loop Road (USFWS 2024). The Florida prairie-clover occurs generally in the western portion of BCNP north of the Oasis Visitor Center (USFWS 2024). ALTA and ALTAS1 did not exceed the aforementioned thresholds on an average annual basis across the modeled POR (1965-2016) when compared to ECB24 in these locations (reference **Section 1** for additional information on potential hydrologic changes).

The USFWS has proposed the designation of two CH units for the Everglades bully, two CH units for the Florida pineland crabgrass, and four CH units for the Florida prairie-clover (87 FR 62564, October 14, 2022). Of these proposed units, only once occurs in the action area and is occupied by all three species. This unit is the parcel designated as EB1 (Everglades bully Unit 1), FPCG1 (Florida pineland crabgrass Unit 1), and FPC1 (Florida prairie-clover Unit 1) and is located west and downstream of the S-229A, S-229B, and S-229C structures. Per the WERP BO, any alterations to ponding depths and hydroperiods within the proposed CH unit has the potential to shift the habitat type from pine rockland and marl prairie to denser, more closed vegetation cover which has the potential to outcompete the Everglades bully, Florida pineland crabgrass, and Florida prairie clover, all of which require sparse open canopies to persist (USFWS 2024).

The Corps has determined that ALTA Optimized may affect, but is not likely to adversely affect: (1) the Everglades bully and its PCH; (2) the Florida pineland crabgrass and its PCH; and (3) the Florida prairie clover and its PCH due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C. Increased ponding depths and hydroperiods from interim operations are not likely to adversely affect these species or their proposed CH. Per the WERP BO, hydrologic modeling suggested that there would be hydrologic impacts to areas within the pCH units just west of the L-28 South Canal, but the hydrologic impacts were in areas where no known plant populations currently occurred. Interim operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP Final PIR/EIS.

The interim operations plan consists of an operational change to current water management practices and does not include construction of permanent structures or modifications to existing C&SF project features. No land clearing or excavation is expected to occur; therefore, potential adverse effects resulting from construction such as removal of the plants would not occur. ESA consultation for the construction of S-229A, S-229B, and S-229C was completed on November 13, 2024 (Service Project Code No. 2023-0133284).

1.8 STOCK ISLAND TREE SNAIL

The Stock Island tree snail is an arboreal species of snail, spending most of its life cycle in tropical hardwood hammocks in the Florida Keys. Host trees include poisonwood (*Metopium toxiferum*), pigeon plum (*Coccoloba diversifolia*), Jamaican dogwood (*Piscidia piscipula*), strangler fig (*Ficus aurea*), and gumbo limbo (*Bursera simarouba*) (FNAI 2001). The snail survives best in hammocks with smooth-barked native trees that support large amounts of their preferred diet of epiphytic algae, fungi, and lichens on trees (USFWS 1999). Though historically isolated to hardwood hammocks on Stock Island and Key West, the Stock Island tree snail's distribution has been artificially extended to include Key Largo and the southernmost parts of mainland Florida and as a result have reported occurrences within BCNP (USFWS 2024).

Based on coordination with BCNP staff in August of 2023 during preparation of the WERP Biological Assessment, it was communicated that a few numbers of individuals have been found in a tree island that has been bisected by Loop Road in southern BCNP (USFWS 2024). No other known populations of stock island tree snails were reported by BCNP staff at that time (USACE 2023). **Figure 13** shows ponding duration and a ponding hydrograph for gage LOOP1 for ECB24, ALTA, and ALTAS1. Gage LOOP1 is located adjacent to Loop Road in BCNP. Negligible differences were observed when comparing ALTA/ALTAS1 to ECB24. ALTA/ALTAS1 marginally raised groundwater and surface stages at this location. ALTA/ALTAS1 are not expected to adversely affect breeding, feeding or dispersal activities for the snail. Subtropical hardwood hammocks are also not expected to be adversely affected. The Corps has determined that ALTA Optimized may affect but is not likely to adversely affect the stock island tree snail due to potential changes in wetland hydrology resulting from the interim operation of S-229A, S-229B, and S-229C (reference **Section 1** for a summary of potential hydrologic changes). Interim

operations of the L-28 South culverts is an incremental step toward achieving the objectives from the 2024 WERP Final PIR/EIS.

The interim operations plan consists of an operational change to current water management practices and does not include construction of permanent structures or modifications to existing C&SF project features. No land clearing or excavation is expected to occur; therefore, potential adverse effects resulting from construction such as removal of host trees would not occur. ESA consultation for the construction of S-229A, S-229B, and S-229C was completed on November 13, 2024 (Service Project Code No. 2023-0133284).

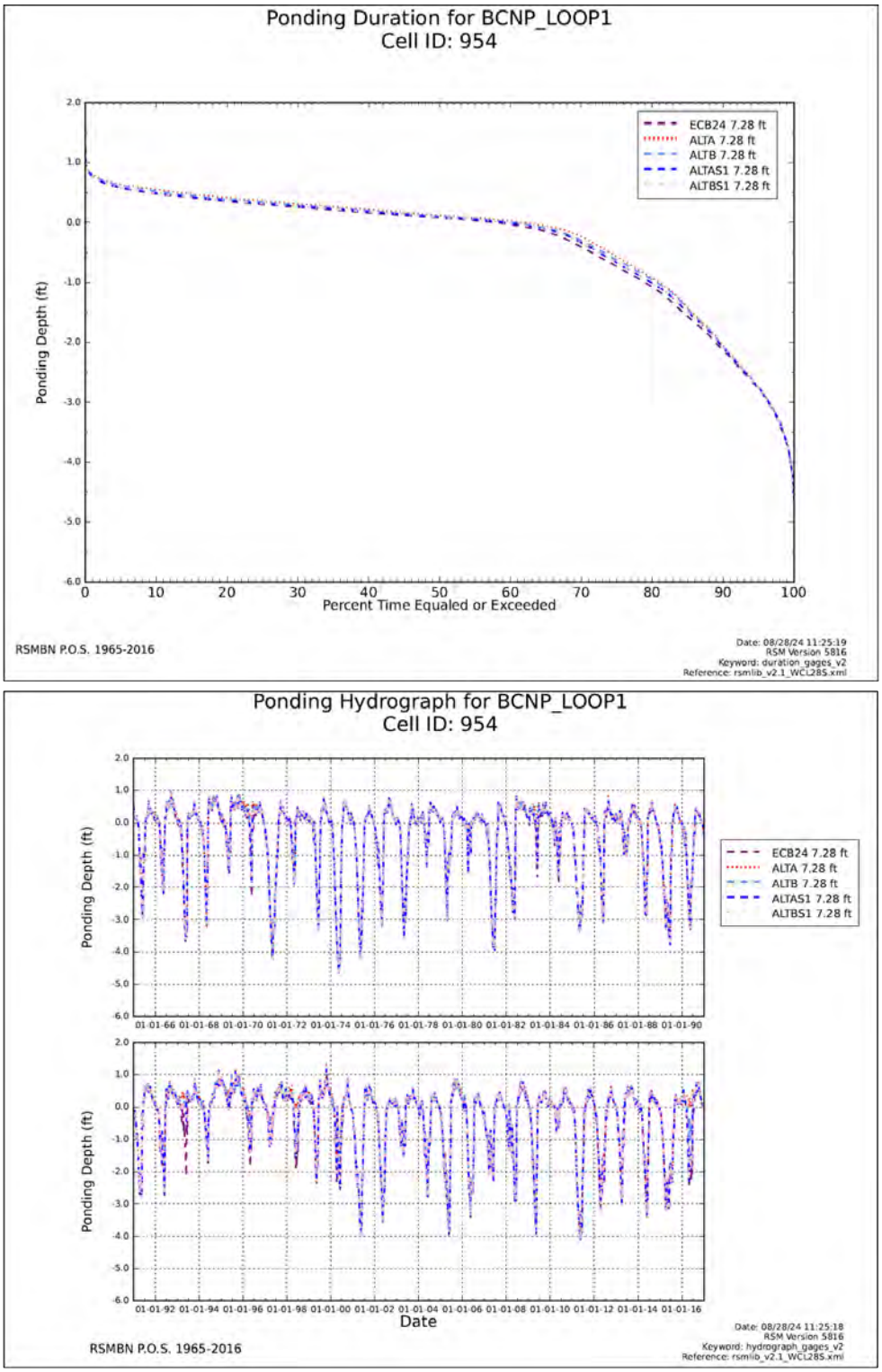


Figure 13. Ponding duration (top graphic) and ponding hydrograph (bottom graphic) for gage LOOP1.

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
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March 13, 2026

Planning and Policy Division
Environmental Branch

Reid Nelson
Director Office of Federal Agency Programs
Advisory Council on Historic Preservation
401 F. Street NW, Suite 308
Washington, District of Columbia 20001-26

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Mr. Nelson:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) in partnership with the South Florida Water Management District is cost-sharing the design and construction the Western Everglades Restoration Project (WERP) in Collier, Hendry, Broward, Monroe, and Miami-Dade counties. The purpose of WERP is to improve the quality, quantity, timing, and distribution of water needed to restore and reconnect the western Everglades ecosystem. WERP is being implemented incrementally, with the first features in the southernmost area, called Region 4.

Phased evaluation of effects to historic properties is being conducted for Region 4 of WERP consistent with the "Programmatic Agreement Among The United States Army Corps Of Engineers, Jacksonville District, The National Park Service, The Florida State Historic Preservation Officer, The Miccosukee Tribe Of Indians, The Seminole Tribe Of Florida, The Advisory Council On Historic Preservation, and The South Florida Water Management District Regarding The Western Everglades Restoration Project, Broward, Collier, Hendry, Miami-Dade, and Monroe Counties, Florida" (PA) executed on May 30, 2024. Consistent with Stipulation II of the PA, the Corps is identifying areas of potential effect (APEs) and evaluating effects as information is available. At this time, the Corps determined sufficient information is available for the following WERP components to identify APEs and propose findings of effect for the L-28 Culvert operations, construction and operation of the 11-Mile Road Culverts, and construction of WERP stilling wells.

For the features in Region 4, the Corps identified potential effects to historic properties that may result from the construction and operation. The first is disturbance

from project construction, which could permanently impact any historic properties present within the limits of construction. Additional effects are related to hydrology: high flowrates, unnatural flooding, or prolonged hydroperiods potentially induced by new infrastructure and operations. To address the former, the Corps reviewed the footprints of features, limits of construction, and the staging area. To address the latter, the Corps reviewed HEC-RAS modeling of the most extreme water levels and RSM-GL modeling characterizing potential changes to the discontinuous hydroperiods. The APEs include all of the construction footprints and the portions of Region 4 with potential for significant changes in maximum water depth level or hydroperiods (Enclosure A). For the purposes of the hydrologic evaluation, the Corps considered all WERP Region 4 from the L-28 levee to Tamiami Trail as the APE.

This letter includes updated information received since the last WERP PA signatories meeting on December 17, 2025. Enclosure A contains Region 4 WERP feature location maps, aerials, and soils maps for 11-Mile Road Culverts, stilling wells, and staging area. These Region 4 features are designed to connect historic flow paths or measure the flow of water, and are generally located near roadways, in previously disturbed areas, and/or within historic sloughs. On this basis, the Corps proposes a finding of No Historic Properties Affected for the construction of these features, following with Stipulation II.D.1 of the PA.

To assess effects to historic properties caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative the Corps review updated hydrologic modeling. The restoration of the historic waterways will alter the local and regional hydrology, where currently the L-28 levee and 11-Mile Road both prevent the flow of water. The data for culverts indicate the effect of higher velocity waterflow are confined to the areas immediately downstream of the culverts; the maximum calculated rates of waterflow and water levels with and without the project are provided in Table 1 for the period October 10, 1999 – November 30, 1999, simulating the extreme weather event of Hurricane Irene. The data show minimal localized increase in water depth stages during this peak-flow event at the 11-Mile Road Culverts and the L-28 Culvert footprint locations. In the areas with these peak flowrates (shown with the APE polygons in figures of culverts in Enclosure A) there are no potential resources identified in historic and contemporary aerial photography, maps, or lidar-based digital terrain models in the immediate vicinity.

Based on updated, high resolution HEC-RAS modeling of Hurricane Irene, the Corps evaluated potential effects of the 11-Mile Road Culverts and the L-28 Gated Culverts within Region 4 based on changes in increased water depths. Enclosure B maps depict maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an

extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts but are discernable in the modeling (Enclosure B).

To assess the impacts of these changes on cultural resources the Corps selected a representative sample of potential historic properties within closest proximity to the L-28 Gated and11-Mile Road Culverts with the greatest exposure to increased water stage levels and hydroperiod durations (Enclosure B). These archaeological sites are located on tree islands (though some are misplotted in Florida Master Site File feature shapes) in areas with an increase in depths up to of 2-3 inches. Due to the unnaturally low water levels in the existing conditions this increase generally does not flood archaeological sites, but instead water reaches further up the slopes of the landforms in the maximum flood condition. There are lower-elevation resources that are inundated in both the existing and future without condition.

The operations of the culverts will restore hydrologic connections across the region. As shown in Enclosure B, the modeled hydroperiods are increased in the vicinity of the archaeological sites. In the RSM-GL data, this is calculated using elevations lower than the archaeological sites to simulate the hydration of sloughs. As a result of the operations, the change in hydroperiod immediately downstream is prolonged as high as 245 days (ranging 50 to 295 days) at the L-28 Culverts per year. Based on the modeling, this does not introduce new high water but instead maintains hydration and should be protective by reducing soil oxidation and fire risk, encourage the stability and accretion of peat soils, and spread water across a broader region. This has the potential to change the existing environmental setting of resources, which are currently kept artificially dry by the lack of hydrologic connectivity. The Corps proposes this effect is not adverse. Based on hydrologic modeling, the Corps proposes a finding of No Adverse Effect on historic properties within Region 4 for the operation of the L-28 Gated Culverts and the 11-Mile Road Culverts, consistent with Stipulation II.D.4.

Based on this information and pursuant to the WERP PA, the Corps is requesting your office's comment on the Corps' proposed combined determination of No Adverse Effect for the WERP 11-Mile Road Culverts, the WERP Stilling Wells, and operations of the L-28 Culverts within the WERP Region 4 Study Area. Please provide any

comments within 30 days of receipt of this letter. If there are any questions or comments, please contact Mr. Marc Tiemann by phone at 904-232-1557 or by email at Marc.A.Tiemann@usace.army.mil.

Sincerely,

Christopher Altes for

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

March 13, 2026

Planning and Policy Division
Environmental Branch

Tom Forsyth
Superintendent, Big Cypress National Preserve
33100 Tamiami Trail, East
Ochopee, Florida 34141

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Mr. Forsyth:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) in partnership with the South Florida Water Management District is cost-sharing the design and construction the Western Everglades Restoration Project (WERP) in Collier, Hendry, Broward, Monroe, and Miami-Dade counties. The purpose of WERP is to improve the quality, quantity, timing, and distribution of water needed to restore and reconnect the western Everglades ecosystem. WERP is being implemented incrementally, with the first features in the southernmost area, called Region 4.

Phased evaluation of effects to historic properties is being conducted for Region 4 of WERP consistent with the "Programmatic Agreement Among The United States Army Corps Of Engineers, Jacksonville District, The National Park Service, The Florida State Historic Preservation Officer, The Miccosukee Tribe Of Indians, The Seminole Tribe Of Florida, The Advisory Council On Historic Preservation, and The South Florida Water Management District Regarding The Western Everglades Restoration Project, Broward, Collier, Hendry, Miami-Dade, and Monroe Counties, Florida" (PA) executed on May 30, 2024. Consistent with Stipulation II of the PA, the Corps is identifying areas of potential effect (APEs) and evaluating effects as information is available. At this time, the Corps determined sufficient information is available for the following WERP components to identify APEs and propose findings of effect for the L-28 Culvert operations, construction and operation of the 11-Mile Road Culverts, and construction of WERP stilling wells.

For the features in Region 4, the Corps identified potential effects to historic properties that may result from the construction and operation. The first is disturbance from project construction, which could permanently impact any historic properties

present within the limits of construction. Additional effects are related to hydrology: high flowrates, unnatural flooding, or prolonged hydroperiods potentially induced by new infrastructure and operations. To address the former, the Corps reviewed the footprints of features, limits of construction, and the staging area. To address the latter, the Corps reviewed HEC-RAS modeling of the most extreme water levels and RSM-GL modeling characterizing potential changes to the discontinuous hydroperiods. The APEs include all of the construction footprints and the portions of Region 4 with potential for significant changes in maximum water depth level or hydroperiods (Enclosure A). For the purposes of the hydrologic evaluation, the Corps considered all WERP Region 4 from the L-28 levee to Tamiami Trail as the APE.

This letter includes updated information received since the last WERP PA signatories meeting on December 17, 2025. Enclosure A contains Region 4 WERP feature location maps, aerials, and soils maps for 11-Mile Road Culverts, stilling wells, and staging area. These Region 4 features are designed to connect historic flow paths or measure the flow of water, and are generally located near roadways, in previously disturbed areas, and/or within historic sloughs. On this basis, the Corps proposes a finding of No Historic Properties Affected for the construction of these features, following with Stipulation II.D.1 of the PA.

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Based on updated, high resolution HEC-RAS modeling of Hurricane Irene, the Corps evaluated potential effects of the 11-Mile Road Culverts and the L-28 Gated Culverts within Region 4 based on changes in increased water depths. Enclosure B maps depict maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road

and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts but are discernable in the modeling (Enclosure B).

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Sincerely,

Christopher Altes for

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

March 13, 2026

Planning and Policy Division
Environmental Branch

Jason M. Daniel, Ph.D.
Tribal Historic Preservation Officer (THPO)
Miccosukee Tribe of Indians of Florida
P.O. Box 440021
Miami, Florida 33144

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Dr. Daniel:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) in partnership with the South Florida Water Management District is cost-sharing the design and construction the Western Everglades Restoration Project (WERP) in Collier, Hendry, Broward, Monroe, and Miami-Dade counties. The purpose of WERP is to improve the quality, quantity, timing, and distribution of water needed to restore and reconnect the western Everglades ecosystem. WERP is being implemented incrementally, with the first features in the southernmost area, called Region 4.

Phased evaluation of effects to historic properties is being conducted for Region 4 of WERP consistent with the "Programmatic Agreement Among The United States Army Corps Of Engineers, Jacksonville District, The National Park Service, The Florida State Historic Preservation Officer, The Miccosukee Tribe Of Indians, The Seminole Tribe Of Florida, The Advisory Council On Historic Preservation, and The South Florida Water Management District Regarding The Western Everglades Restoration Project, Broward, Collier, Hendry, Miami-Dade, and Monroe Counties, Florida" (PA) executed on May 30, 2024. Consistent with Stipulation II of the PA, the Corps is identifying areas of potential effect (APEs) and evaluating effects as information is available. At this time, the Corps determined sufficient information is available for the following WERP components to identify APEs and propose findings of effect for the L-28 Culvert operations, construction and operation of the 11-Mile Road Culverts, and construction of WERP stilling wells.

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This letter includes updated information received since the last WERP PA signatories meeting on December 17, 2025. Enclosure A contains Region 4 WERP feature location maps, aerials, and soils maps for 11-Mile Road Culverts, stilling wells, and staging area. These Region 4 features are designed to connect historic flow paths or measure the flow of water, and are generally located near roadways, in previously disturbed areas, and/or within historic sloughs. On this basis, the Corps proposes a finding of No Historic Properties Affected for the construction of these features, following with Stipulation II.D.1 of the PA.

To assess effects to historic properties caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative the Corps review updated hydrologic modeling. The restoration of the historic waterways will alter the local and regional hydrology, where currently the L-28 levee and 11-Mile Road both prevent the flow of water. The data for culverts indicate the effect of higher velocity waterflow are confined to the areas immediately downstream of the culverts; the maximum calculated rates of waterflow and water levels with and without the project are provided in Table 1 for the period October 10, 1999 – November 30, 1999, simulating the extreme weather event of Hurricane Irene. The data show minimal localized increase in water depth stages during this peak-flow event at the 11-Mile Road Culverts and the L-28 Culvert footprint locations. In the areas with these peak flowrates (shown with the APE polygons in figures of culverts in Enclosure A) there are no potential resources identified in historic and contemporary aerial photography, maps, or lidar-based digital terrain models in the immediate vicinity.

Based on updated, high resolution HEC-RAS modeling of Hurricane Irene, the Corps evaluated potential effects of the 11-Mile Road Culverts and the L-28 Gated Culverts within Region 4 based on changes in increased water depths. Enclosure B maps depict maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an

extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts but are discernable in the modeling (Enclosure B).

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Based on this information and pursuant to the WERP PA, the Corps is requesting your office's comment on the Corps' proposed combined determination of No Adverse Effect for the WERP 11-Mile Road Culverts, the WERP Stilling Wells, and operations of the L-28 Culverts within the WERP Region 4 Study Area. Please provide any

comments within 30 days of receipt of this letter. If there are any questions or comments, please contact Mr. Marc Tiemann by phone at 904-232-1557 or by email at Marc.A.Tiemann@usace.army.mil.

Sincerely,

Christopher Altes for

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosures

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

March 13, 2026

Planning and Policy Division
Environmental Branch

Drew Bartlett
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Mr. Bartlett:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) in partnership with the South Florida Water Management District is cost-sharing the design and construction the Western Everglades Restoration Project (WERP) in Collier, Hendry, Broward, Monroe, and Miami-Dade counties. The purpose of WERP is to improve the quality, quantity, timing, and distribution of water needed to restore and reconnect the western Everglades ecosystem. WERP is being implemented incrementally, with the first features in the southernmost area, called Region 4.

Phased evaluation of effects to historic properties is being conducted for Region 4 of WERP consistent with the "Programmatic Agreement Among The United States Army Corps Of Engineers, Jacksonville District, The National Park Service, The Florida State Historic Preservation Officer, The Miccosukee Tribe Of Indians, The Seminole Tribe Of Florida, The Advisory Council On Historic Preservation, and The South Florida Water Management District Regarding The Western Everglades Restoration Project, Broward, Collier, Hendry, Miami-Dade, and Monroe Counties, Florida" (PA) executed on May 30, 2024. Consistent with Stipulation II of the PA, the Corps is identifying areas of potential effect (APEs) and evaluating effects as information is available. At this time, the Corps determined sufficient information is available for the following WERP components to identify APEs and propose findings of effect for the L-28 Culvert operations, construction and operation of the 11-Mile Road Culverts, and construction of WERP stilling wells.

For the features in Region 4, the Corps identified potential effects to historic properties that may result from the construction and operation. The first is disturbance from project construction, which could permanently impact any historic properties present within the limits of construction. Additional effects are related to hydrology: high flowrates, unnatural flooding, or prolonged hydroperiods potentially induced by new infrastructure and

operations. To address the former, the Corps reviewed the footprints of features, limits of construction, and the staging area. To address the latter, the Corps reviewed HEC-RAS modeling of the most extreme water levels and RSM-GL modeling characterizing potential changes to the discontinuous hydroperiods. The APEs include all of the construction footprints and the portions of Region 4 with potential for significant changes in maximum water depth level or hydroperiods (Enclosure A). For the purposes of the hydrologic evaluation, the Corps considered all WERP Region 4 from the L-28 levee to Tamiami Trail as the APE.

This letter includes updated information received since the last WERP PA signatories meeting on December 17, 2025. Enclosure A contains Region 4 WERP feature location maps, aerials, and soils maps for 11-Mile Road Culverts, stilling wells, and staging area. These Region 4 features are designed to connect historic flowpaths or measure the flow of water, and are generally located near roadways, in previously disturbed areas, and/or within historic sloughs. On this basis, the Corps proposes a finding of No Historic Properties Affected for the construction of these features, following with Stipulation II.D.1 of the PA.

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Based on updated, high resolution HEC-RAS modeling of Hurricane Irene, the Corps evaluated potential effects of the 11-Mile Road Culverts and the L-28 Gated Culverts within Region 4 based on changes in increased water depths. Enclosure B maps depict maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts, but are discernable in the modeling (Enclosure B).

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Based on this information and pursuant to the WERP PA, the Corps is requesting your office's comment on the Corps' proposed combined determination of No Adverse Effect for the WERP 11-Mile Road Culverts, the WERP Stilling Wells, and operations of the L-28 Culverts within the WERP Region 4 Study Area. Please provide any comments within 30 days of receipt of this letter. If there are any questions or comments, please contact Mr. Marc Tiemann by phone at 904-232-1557 or by email at Marc.A.Tiemann@usace.army.mil.

Sincerely,

Christopher Altes for

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Encl

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

March 13, 2026

Planning and Policy Division
Environmental Branch

Ms. Alissa Slade Lotane, SHPO
Division of Historical Resources
State Historic Preservation Officer
500 South Bronough Street
Tallahassee, Florida 32399-0250

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Ms. Lotane:

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maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts but are discernable in the modeling (Enclosure B).

To assess the impacts of these changes on cultural resources the Corps selected a representative sample of potential historic properties within closest proximity to the L-28 Gated and11-Mile Road Culverts with the greatest exposure to increased water stage levels and hydroperiod durations (Enclosure B). These archaeological sites are located on tree islands (though some are misplotted in Florida Master Site File feature shapes) in areas with an increase in depths up to of 2-3 inches. Due to the unnaturally low water levels in the existing conditions this increase generally does not flood archaeological sites, but instead water reaches further up the slopes of the landforms in the maximum flood condition. There are lower-elevation resources that are inundated in both the existing and future without condition.

The operations of the culverts will restore hydrologic connections across the region. As shown in Enclosure B, the modeled hydroperiods are increased in the vicinity of the archaeological sites. In the RSM-GL data, this is calculated using elevations lower than the archaeological sites to simulate the hydration of sloughs. As a result of the operations, the change in hydroperiod immediately downstream is prolonged as high as 245 days (ranging 50 to 295 days) at the L-28 Culverts per year. Based on the modeling, this does not introduce new high water but instead maintains hydration and should be protective by reducing soil oxidation and fire risk, encourage the stability and accretion of peat soils, and spread water across a broader region. This has the potential to change the existing environmental setting of resources, which are currently kept artificially dry by the lack of hydrologic connectivity. The Corps proposes this effect is not adverse. Based on hydrologic modeling, the Corps proposes a finding of No Adverse Effect on historic properties within Region 4 for the operation of the L-28 Gated Culverts and the 11-Mile Road Culverts, consistent with Stipulation II.D.4.

Based on this information and pursuant to the WERP PA, the Corps is requesting your office's comment on the Corps' proposed combined determination of No Adverse Effect for the WERP 11-Mile Road Culverts, the WERP Stilling Wells, and operations of the L-28 Culverts within the WERP Region 4 Study Area. Please provide any

comments within 30 days of receipt of this letter. If there are any questions or comments, please contact Mr. Marc Tiemann by phone at 904-232-1557 or by email at Marc.A.Tiemann@usace.army.mil.

Sincerely,

Christopher Altes for

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

March 13, 2026

Planning and Policy Division
Environmental Branch

Ms. Tina Osceola, THPO
Tribal Historic Preservation Officer
Director of Tribal Historic Preservation Office
Seminole Tribe of Florida
Ah-Tah-Thi-Ki Museum
30290 Josie3 Billie Highway
PMP 1004
Clewiston, Florida 33440

Re: Area of Potential Effects and Proposed Determination of Effects for the Western Everglades Restoration Project (WERP) L-28 Culverts Operations, 11-Mile Road Culverts, and the WERP Stilling Wells, in Collier, Monroe, and Miami-Dade Counties, Florida.

Dear Ms. Osceola:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) in partnership with the South Florida Water Management District is cost-sharing the design and construction the Western Everglades Restoration Project (WERP) in Collier, Hendry, Broward, Monroe, and Miami-Dade counties. The purpose of WERP is to improve the quality, quantity, timing, and distribution of water needed to restore and reconnect the western Everglades ecosystem. WERP is being implemented incrementally, with the first features in the southernmost area, called Region 4.

Phased evaluation of effects to historic properties is being conducted for Region 4 of WERP consistent with the "Programmatic Agreement Among The United States Army Corps Of Engineers, Jacksonville District, The National Park Service, The Florida State Historic Preservation Officer, The Miccosukee Tribe Of Indians, The Seminole Tribe Of Florida, The Advisory Council On Historic Preservation, and The South Florida Water Management District Regarding The Western Everglades Restoration Project, Broward, Collier, Hendry, Miami-Dade, and Monroe Counties, Florida" (PA) executed on May 30, 2024. Consistent with Stipulation II of the PA, the Corps is identifying areas of potential effect (APEs) and evaluating effects as information is available. At this time, the Corps determined sufficient information is available for the following WERP components to identify APEs and propose findings of effect for the L-28 Culvert operations, construction and operation of the 11-Mile Road Culverts, and construction of WERP stilling wells.

For the features in Region 4, the Corps identified potential effects to historic properties that may result from the construction and operation. The first is disturbance from project construction, which could permanently impact any historic properties present within the limits of construction. Additional effects are related to hydrology: high flowrates, unnatural flooding, or prolonged hydroperiods potentially induced by new infrastructure and operations. To address the former, the Corps reviewed the footprints of features, limits of construction, and the staging area. To address the latter, the Corps reviewed HEC-RAS modeling of the most extreme water levels and RSM-GL modeling characterizing potential changes to the discontinuous hydroperiods. The APEs include all of the construction footprints and the portions of Region 4 with potential for significant changes in maximum water depth level or hydroperiods (Enclosure A). For the purposes of the hydrologic evaluation, the Corps considered all WERP Region 4 from the L-28 levee to Tamiami Trail as the APE.

This letter includes updated information received since the last WERP PA signatories meeting on December 17, 2025. Enclosure A contains Region 4 WERP feature location maps, aerials, and soils maps for 11-Mile Road Culverts, stilling wells, and staging area. These Region 4 features are designed to connect historic flow paths or measure the flow of water, and are generally located near roadways, in previously disturbed areas, and/or within historic sloughs. On this basis, the Corps proposes a finding of No Historic Properties Affected for the construction of these features, following with Stipulation II.D.1 of the PA.

To assess effects to historic properties caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative the Corps review updated hydrologic modeling. The restoration of the historic waterways will alter the local and regional hydrology, where currently the L-28 levee and 11-Mile Road both prevent the flow of water. The data for culverts indicate the effect of higher velocity waterflow are confined to the areas immediately downstream of the culverts; the maximum calculated rates of waterflow and water levels with and without the project are provided in Table 1 for the period October 10, 1999 – November 30, 1999, simulating the extreme weather event of Hurricane Irene. The data show minimal localized increase in water depth stages during this peak-flow event at the 11-Mile Road Culverts and the L-28 Culvert footprint locations. In the areas with these peak flowrates (shown with the APE polygons in figures of culverts in Enclosure A) there are no potential resources identified in historic and contemporary aerial photography, maps, or lidar-based digital terrain models in the immediate vicinity.

Based on updated, high resolution HEC-RAS modeling of Hurricane Irene, the Corps evaluated potential effects of the 11-Mile Road Culverts and the L-28 Gated Culverts

within Region 4 based on changes in increased water depths. Enclosure B maps depict maximum water depths for with and without the WERP features, and the difference maps for comparative analysis. These maps depict change in maximum depths in an extreme rain event (Hurricane Irene), showing how culverts through the 11-Mile Road and L-28 levee spread water downstream. The maps generally depict minor changes (i.e. increased stage depths of inches) that decrease with distance from the 11-Mile Road Open Culverts and the L-28 Gated Culverts but are discernable in the modeling (Enclosure B).

To assess the impacts of these changes on cultural resources the Corps selected a representative sample of potential historic properties within closest proximity to the L-28 Gated and11-Mile Road Culverts with the greatest exposure to increased water stage levels and hydroperiod durations (Enclosure B). These archaeological sites are located on tree islands (though some are misplotted in Florida Master Site File feature shapes) in areas with an increase in depths up to of 2-3 inches. Due to the unnaturally low water levels in the existing conditions this increase generally does not flood archaeological sites, but instead water reaches further up the slopes of the landforms in the maximum flood condition. There are lower-elevation resources that are inundated in both the existing and future without condition.

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Based on this information and pursuant to the WERP PA, the Corps is requesting your office's comment on the Corps' proposed combined determination of No Adverse Effect for the WERP 11-Mile Road Culverts, the WERP Stilling Wells, and operations of the L-28 Culverts within the WERP Region 4 Study Area. Please provide any

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Sincerely,

Christopher Altes for

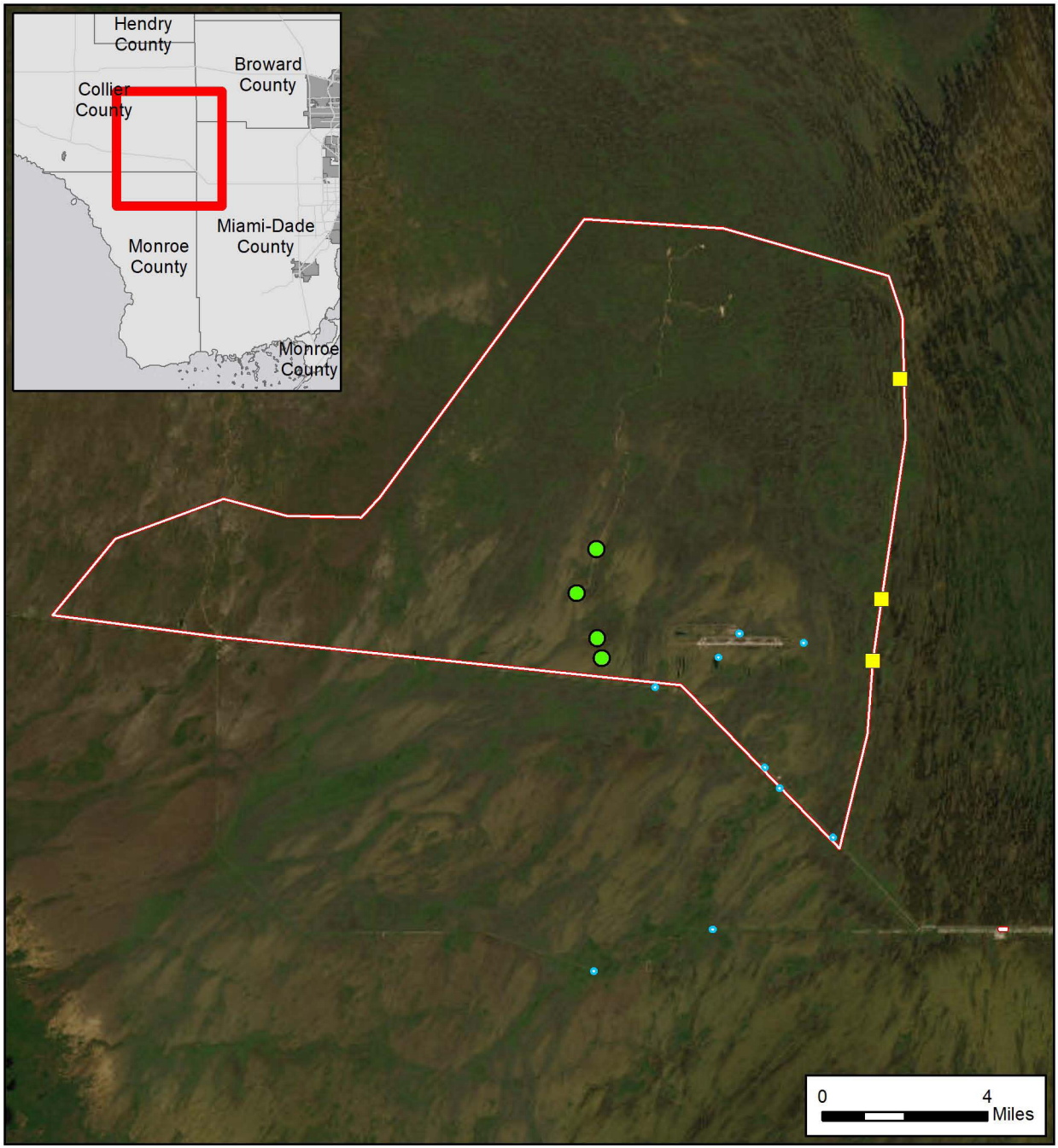
Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosures

Table 1. 11-Mile Road Culverts (S-226) and L-28 Culverts (S-229) Flowrates and Maximum Downstream Water Levels from an Extreme Weather Event

Feature	Rate: CFS	Tailwater Elevation: Existing Conditions (No culverts)	Tailwater Elevation: L -28 Culvert Gates Open	Tailwater Elevation: L -28 Culvert Gates Closed
S-226A	18 - 34	8.70	8.89	8.77
S-226B	18 - 34	--	--	--
S-226C	18 - 34	8.56	8.75	8.60
S-226D	18 - 34	--	--	--
S-226E	18 - 34	8.50	8.69	8.53
S-229A	250	9.54	9.79	9.73
S-229B	350	8.76	9.11	8.88
S-229C	400	8.59	9.00	8.72

Enclosure A
Maps of Features



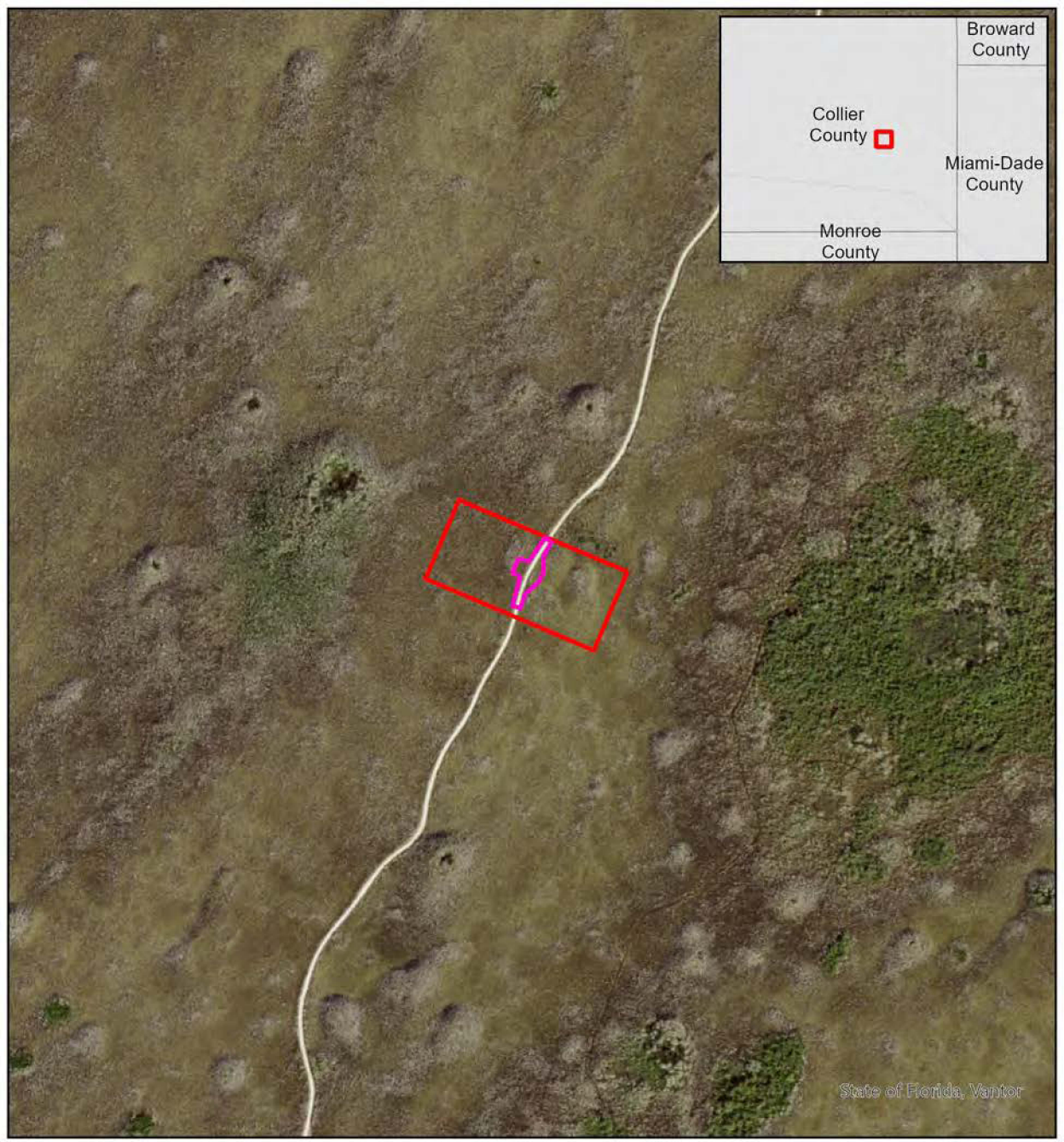
US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
L-28 Culvert Operations, 11-Mile Road Culverts, and Stilling Wells APE

Collier, Miami-Dade, and Monroe Counties
Florida

L-28 Culvert
11-Mile Road Culverts
Stilling Wells APE
L-28 Operations and 11-Mile Road Culverts APE

N



US Army Corps of Engineers ®
Jacksonville District

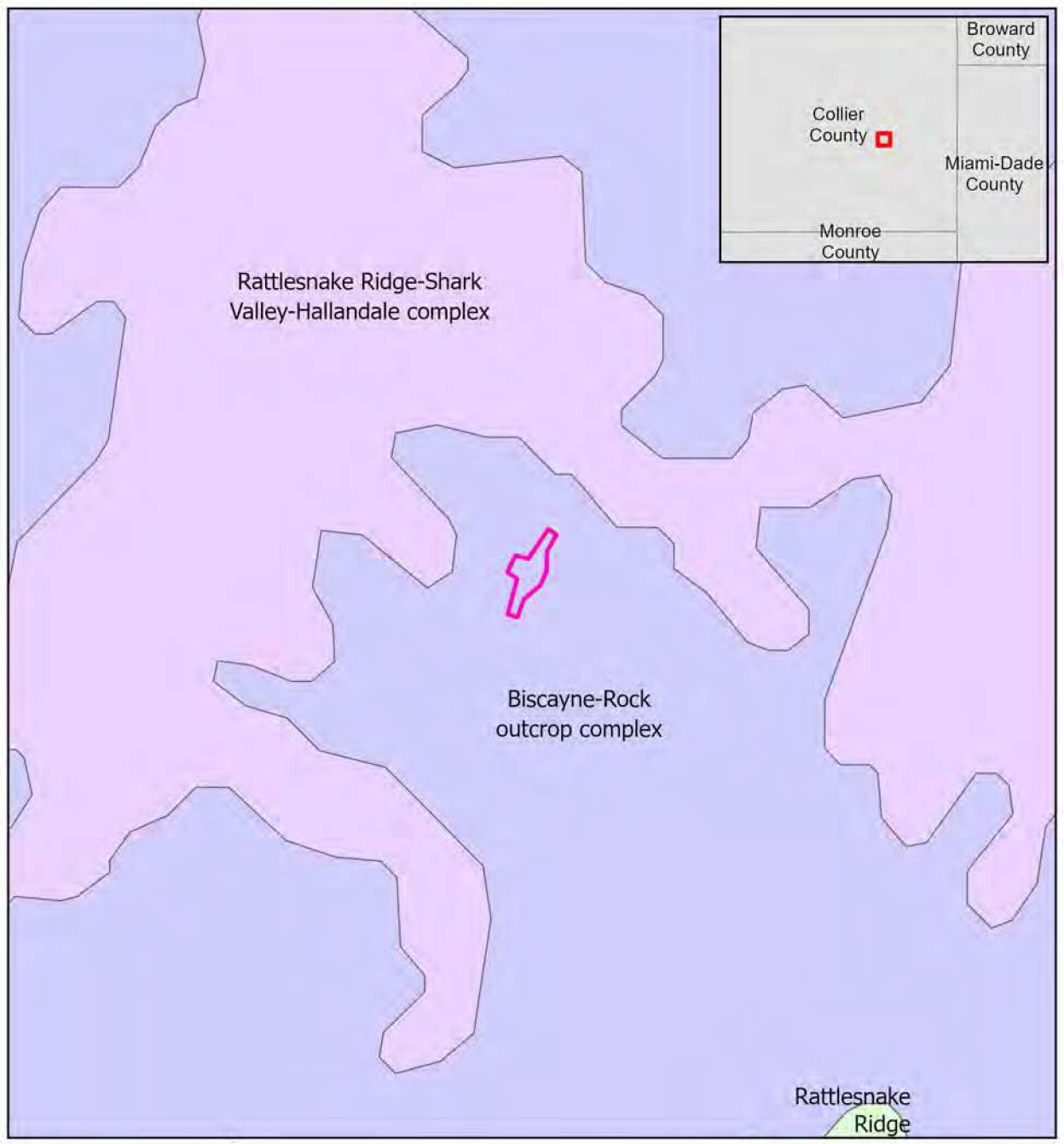
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

Area of Potential Effects
S-226A

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

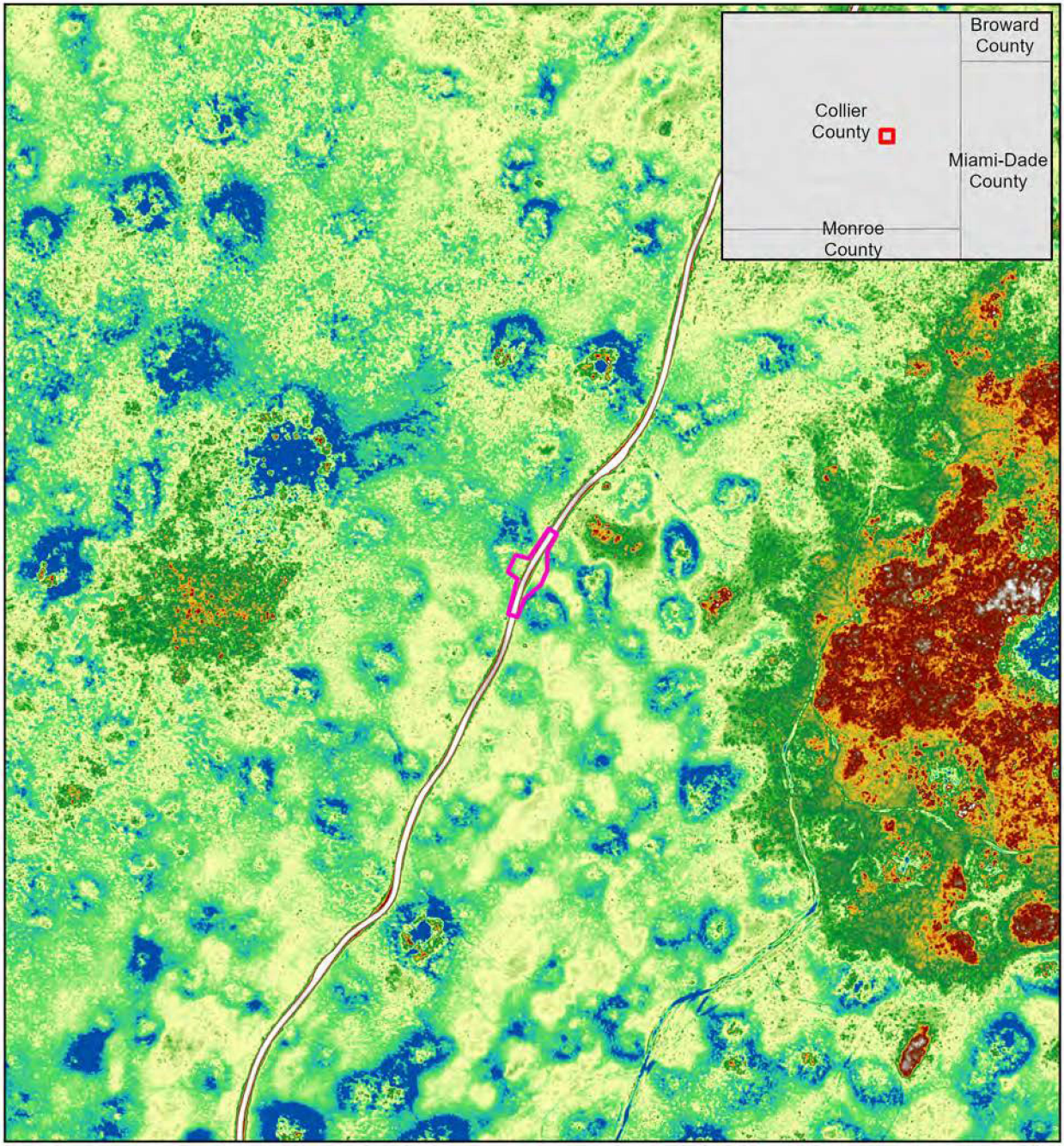
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226A

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
11-Mile Road Culverts

Collier County
Florida

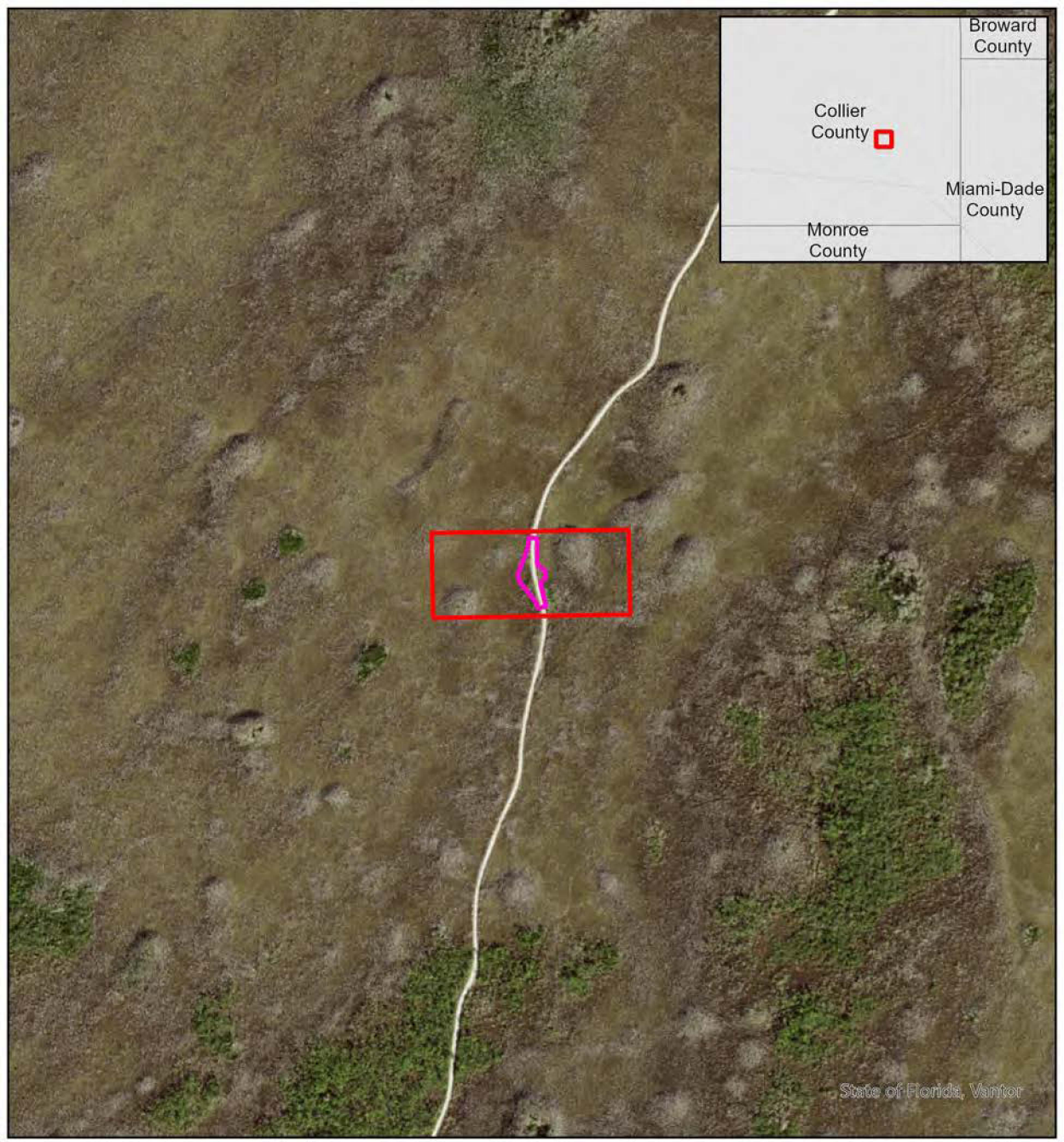
S-226A

Elevation (M NAVD)

2.25 3

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

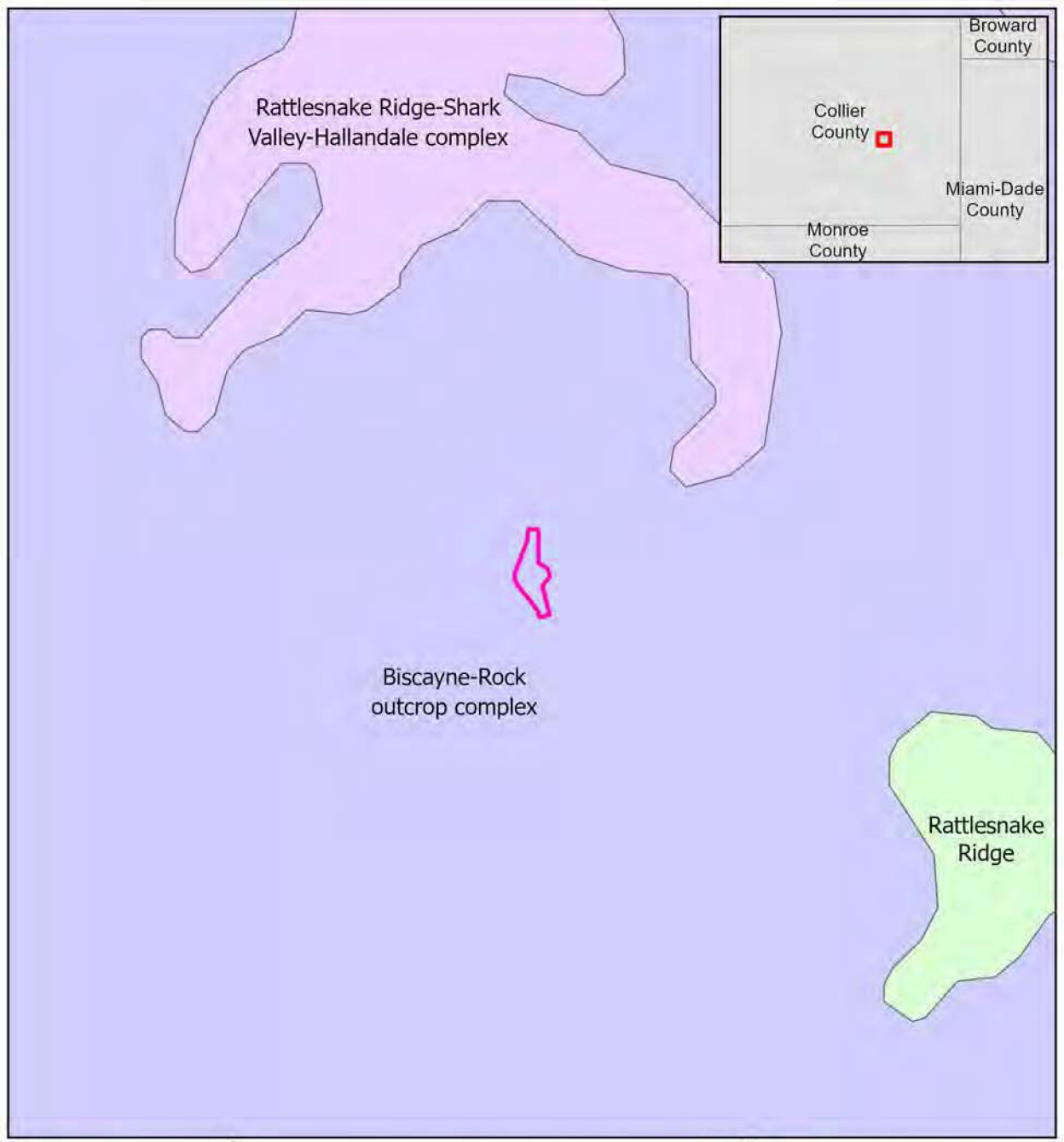
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

Area of Potential Effects
S-22B

0 200
Meters

N



US Army Corps
of Engineers ®
Jacksonville District

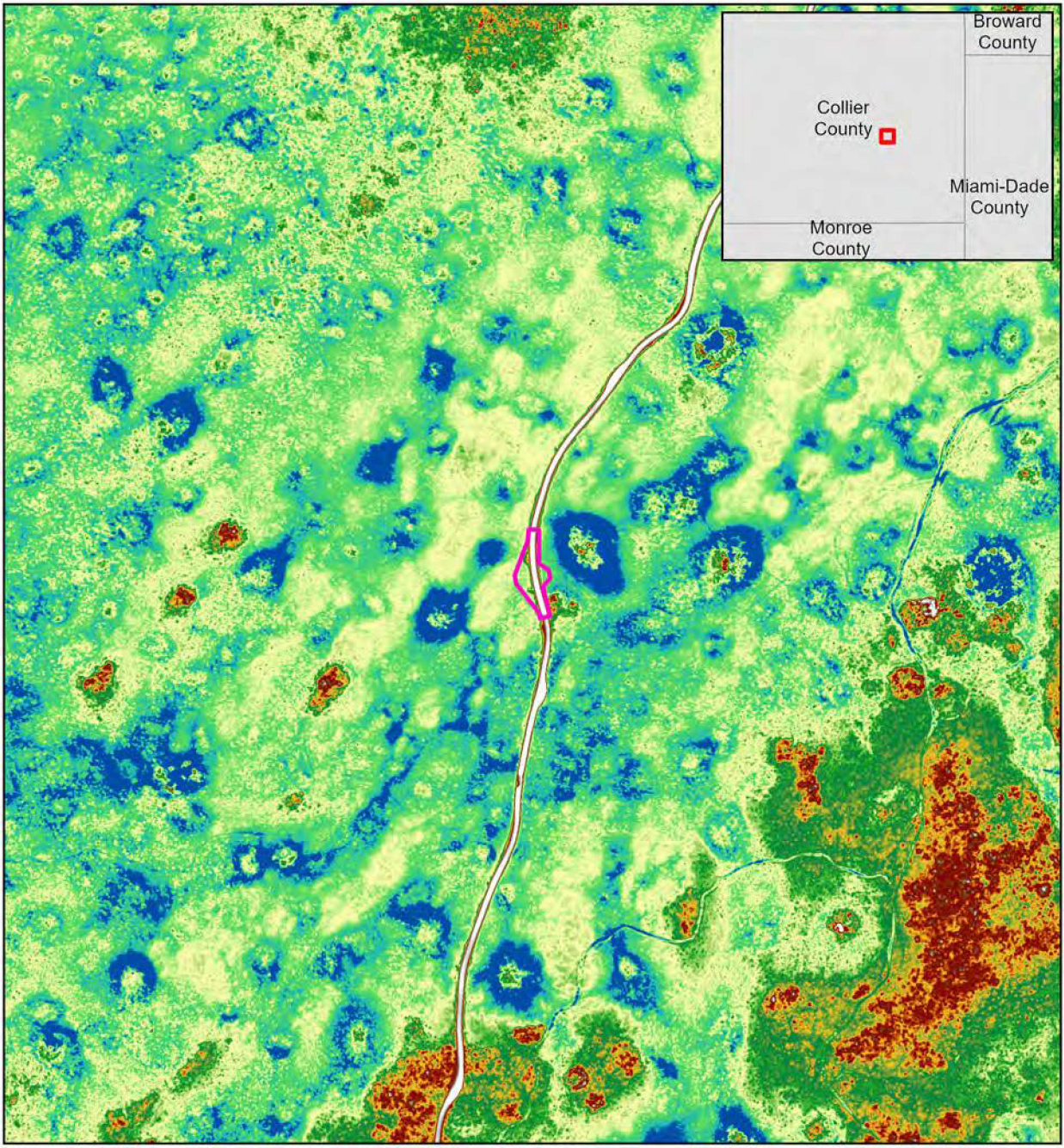
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226B

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
11-Mile Road Culverts

Collier County
Florida

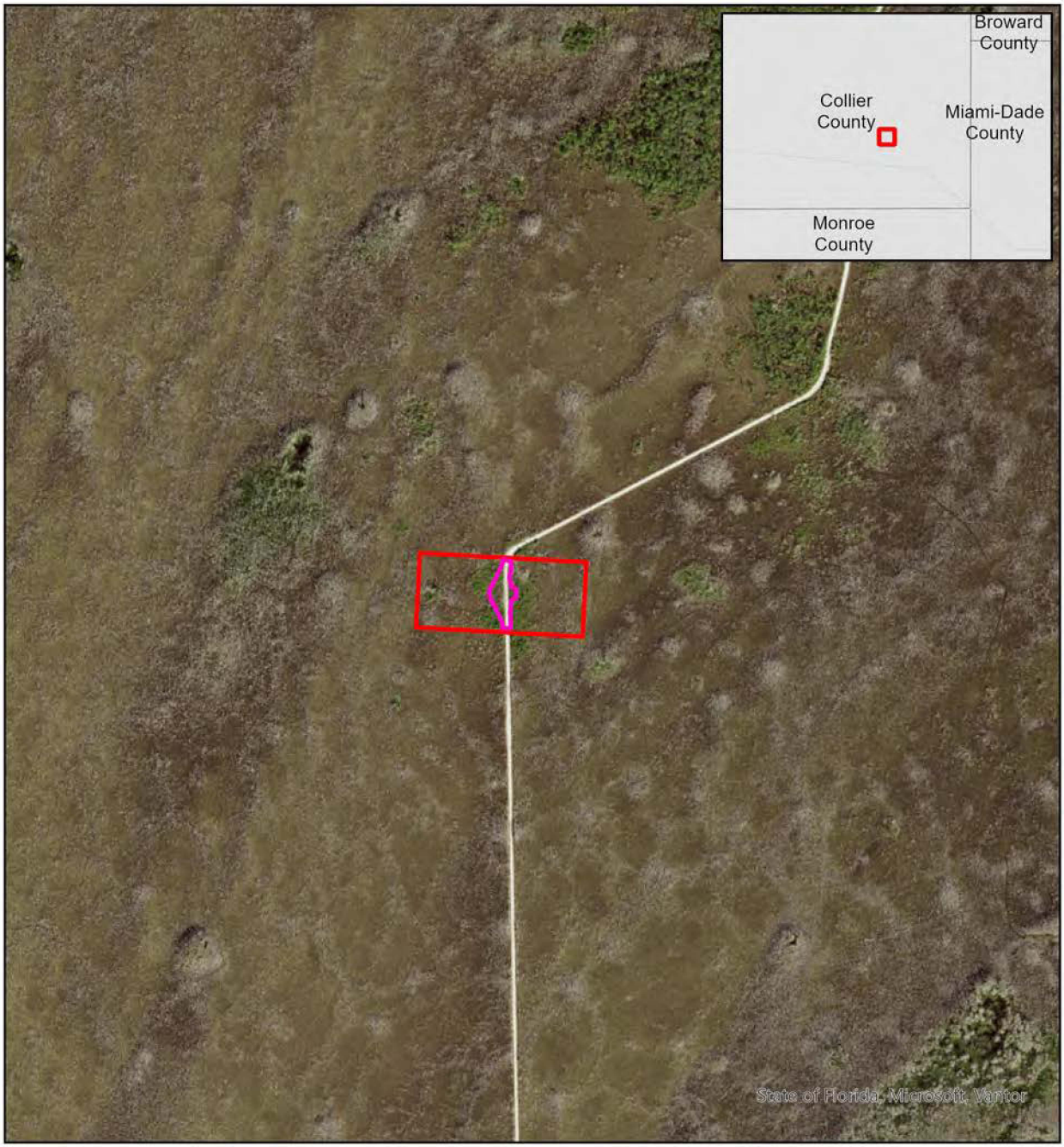
S-226B

Elevation (M NAVD)

2.25 3

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

Area of Potential Effects
S-226C

0 200
Meters

N

US Army Corps of Engineers ®
Jacksonville District

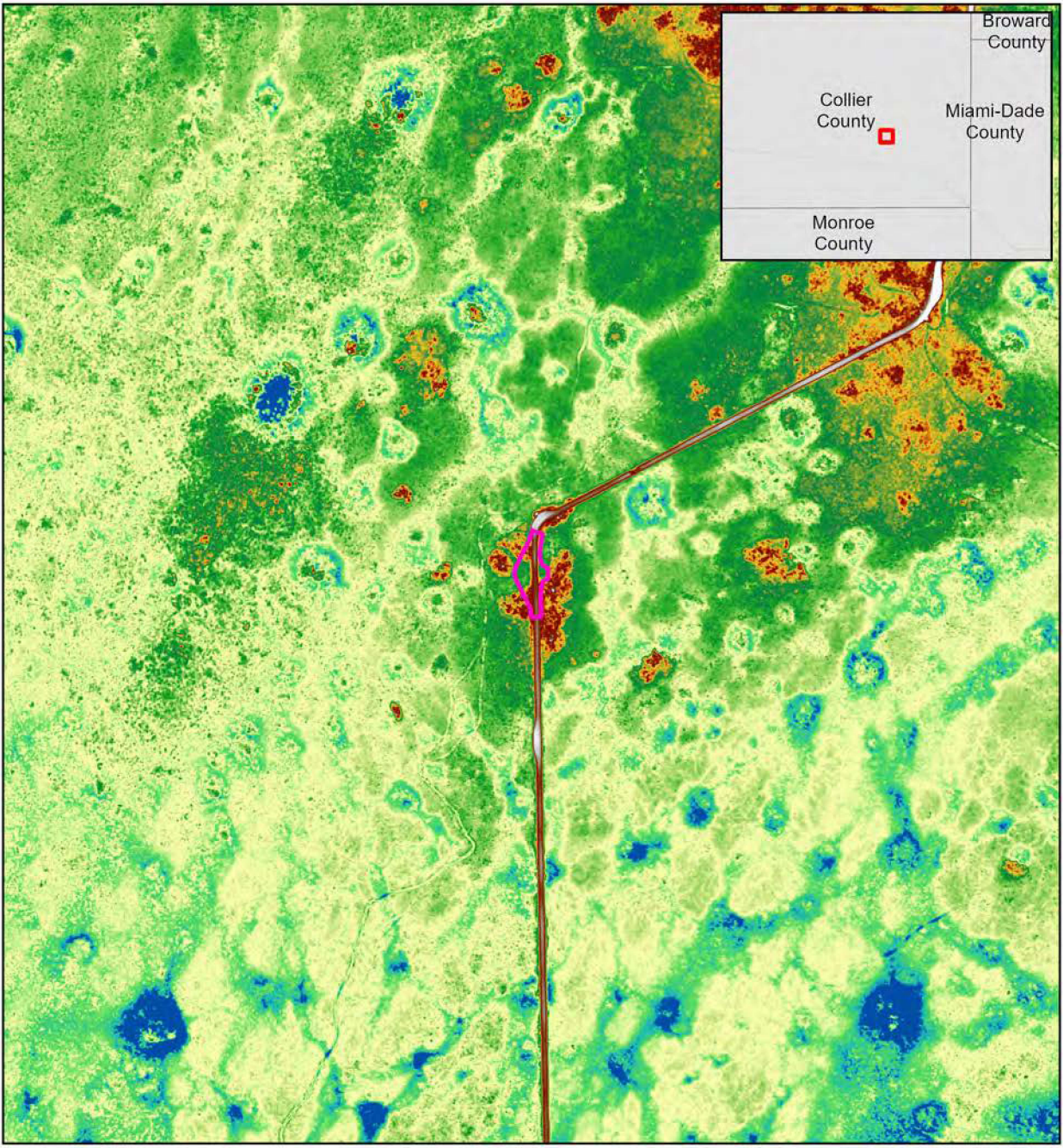
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226C

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
11-Mile Road Culverts

Collier County
Florida

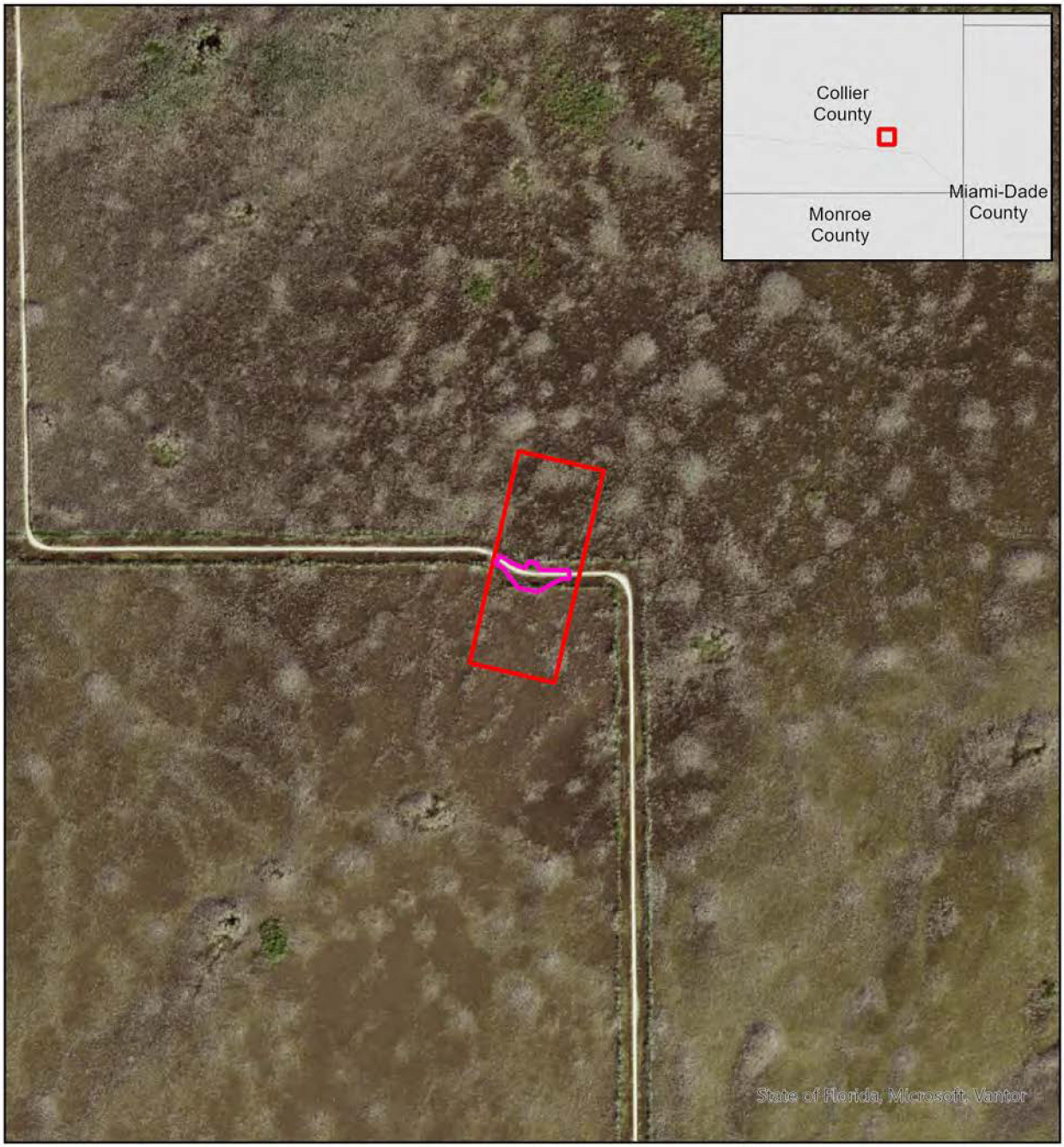
S-226C

Elevation (M NAVD)

2.1 3

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

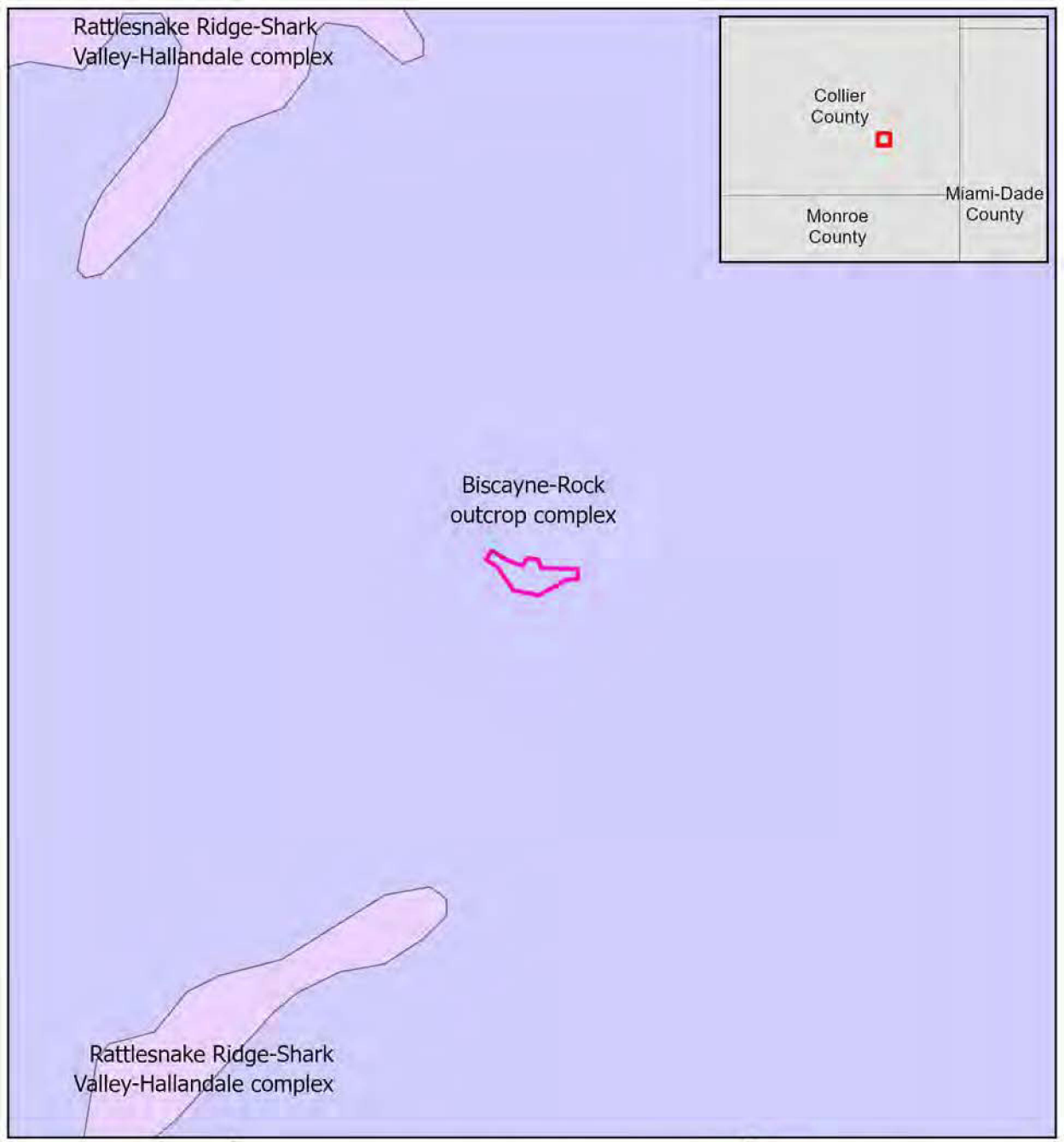
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

Area of Potential Effects
S-226D

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

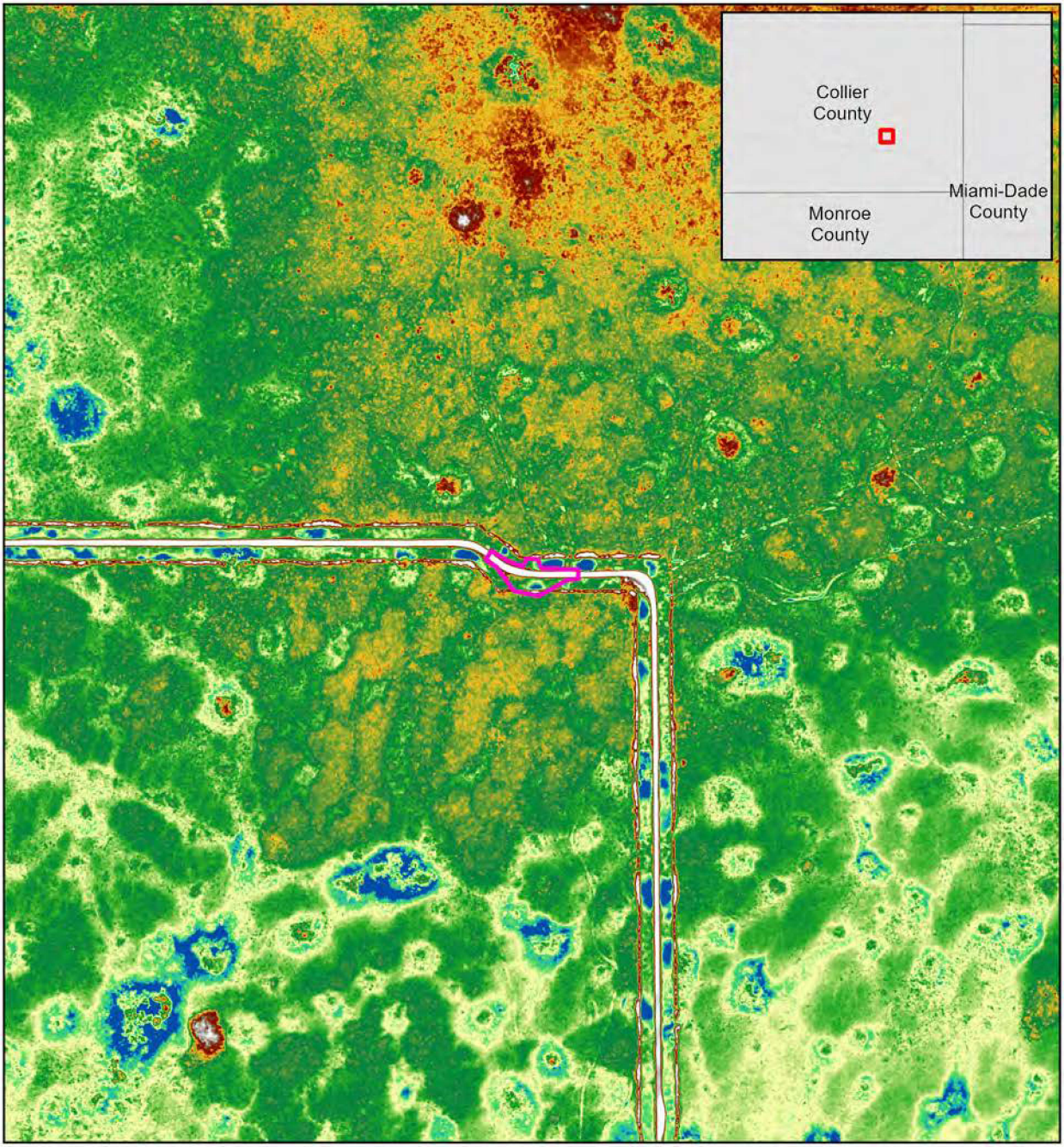
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226D

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

Western Everglades Restoration Project 11-Mile Road Culverts

Collier County
Florida

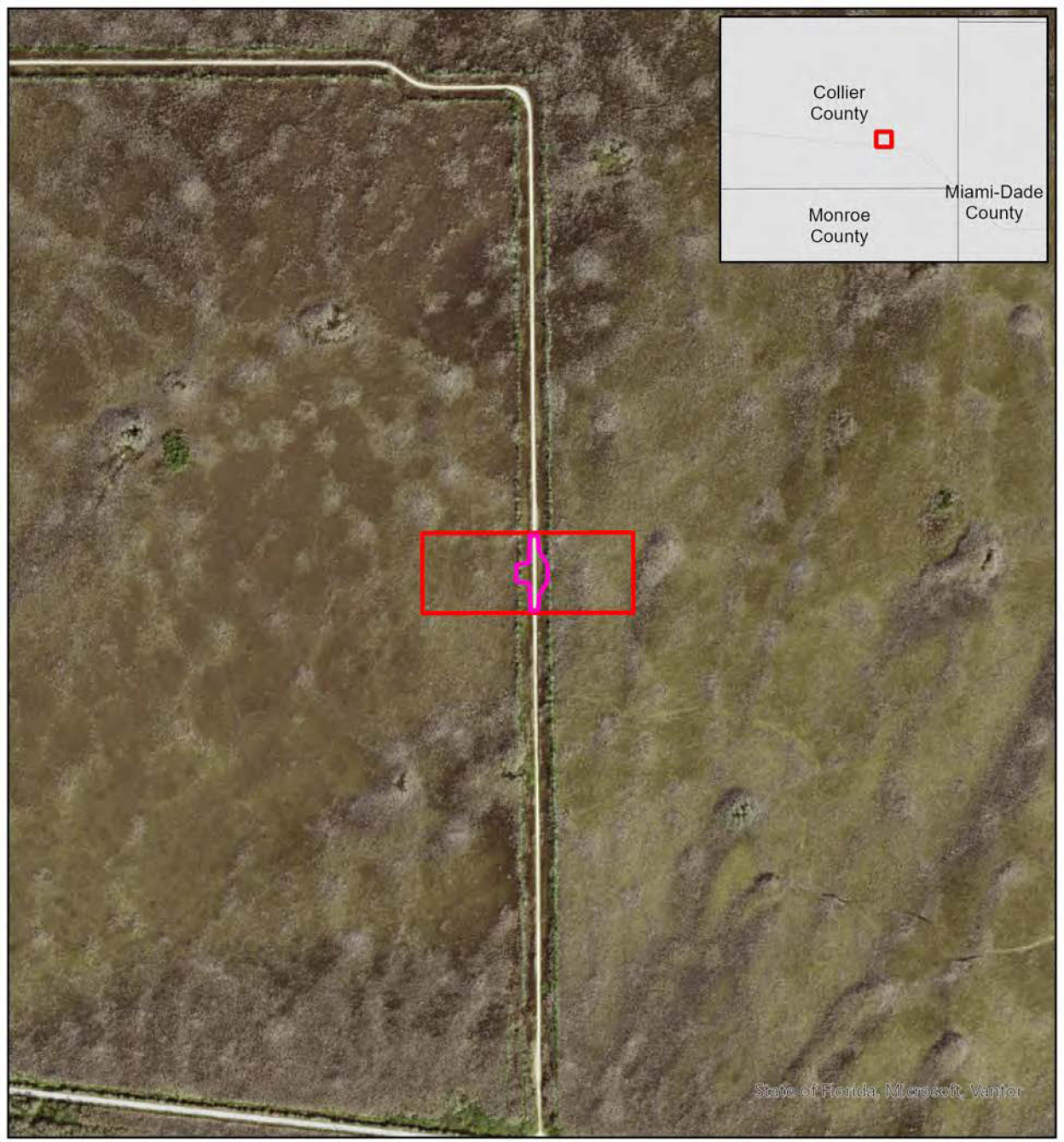
S-226D

Elevation (M NAVD)

2 2.7

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

Area of Potential Effects
S-226E

0 200
Meters

N

US Army Corps
of Engineers
Jacksonville District

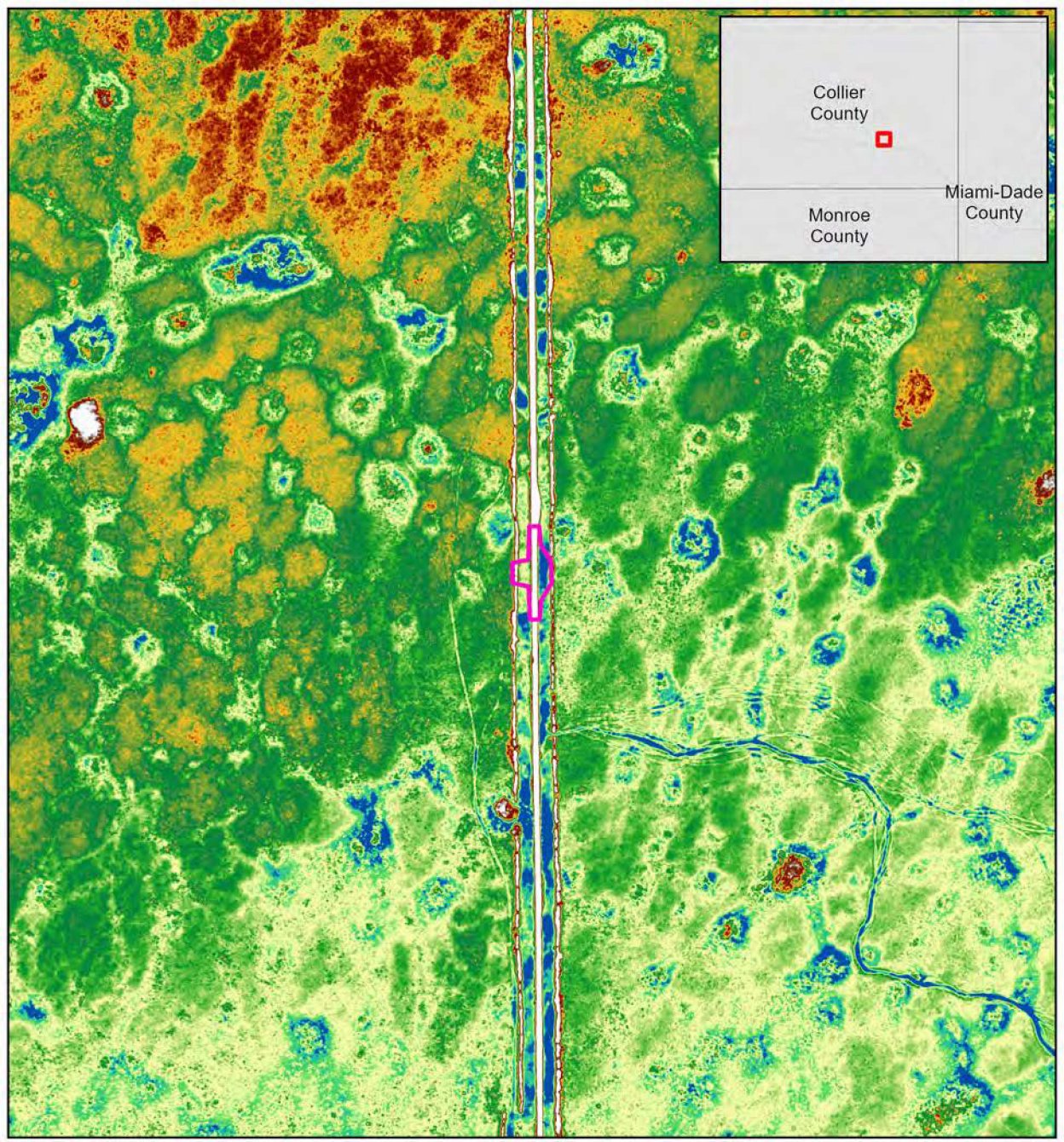
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226E

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
11-Mile Road Culverts

Collier County
Florida

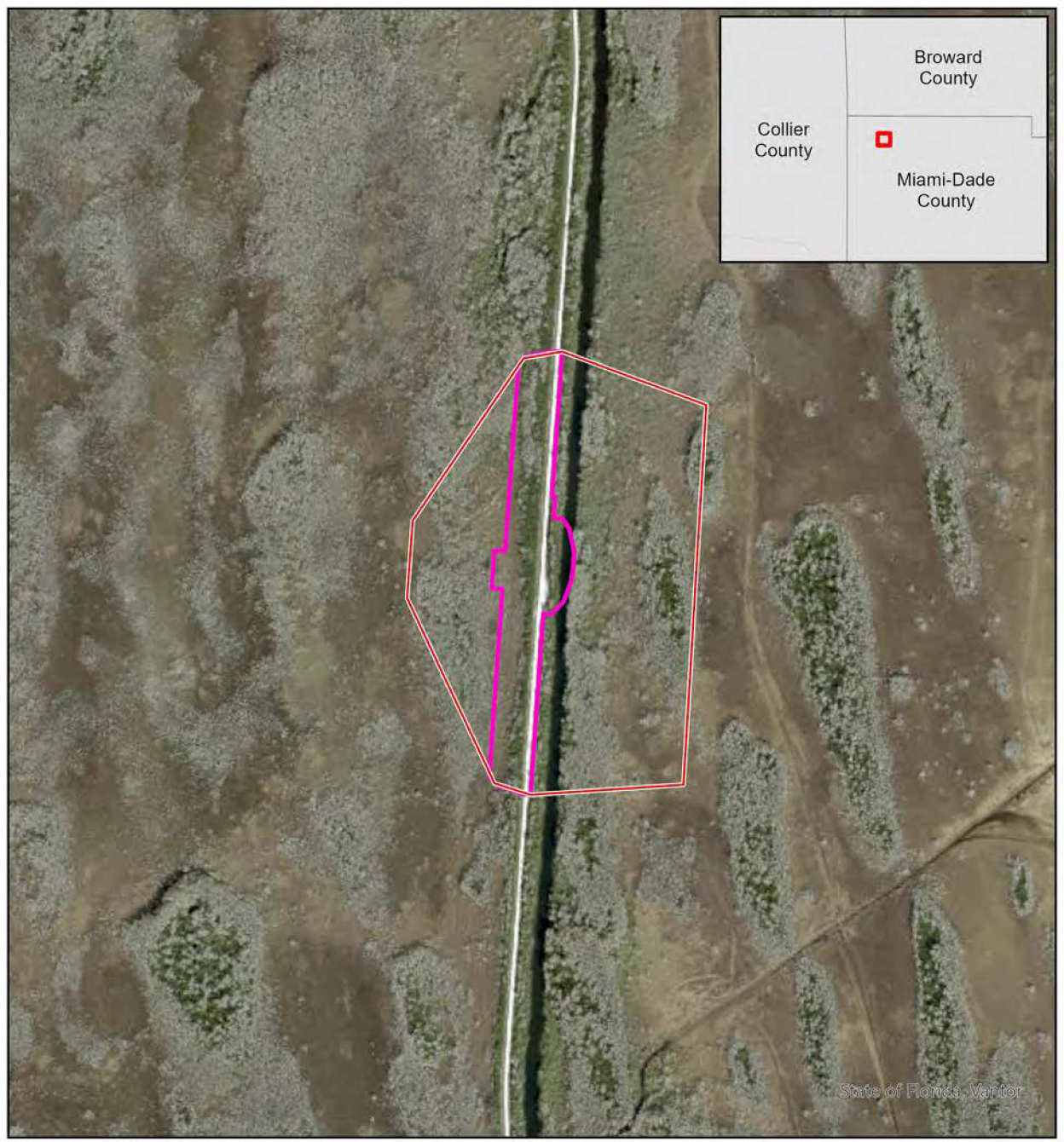
S-226E

Elevation (M NAVD)

2 2.5

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

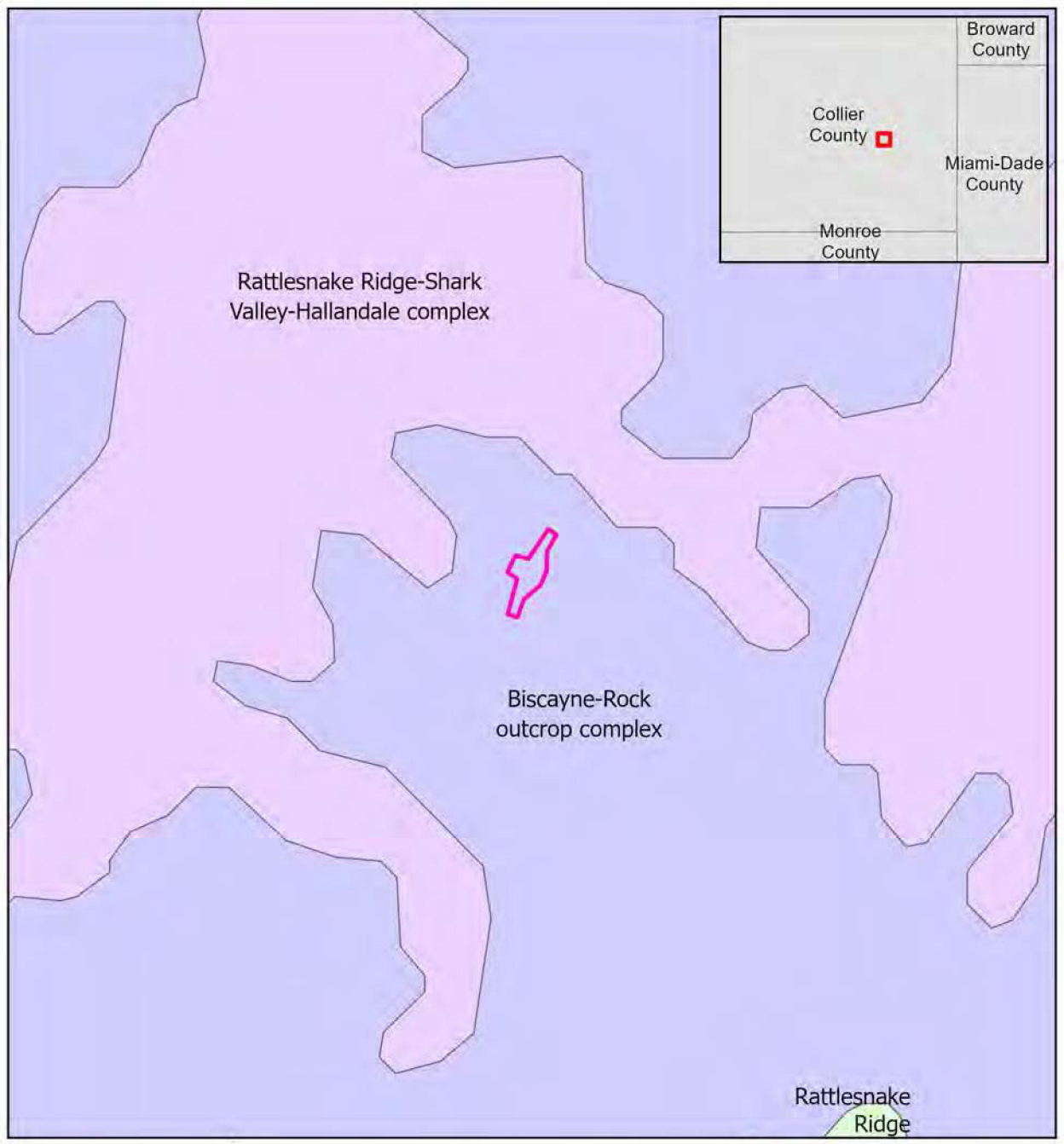
Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

S-229A
APE

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

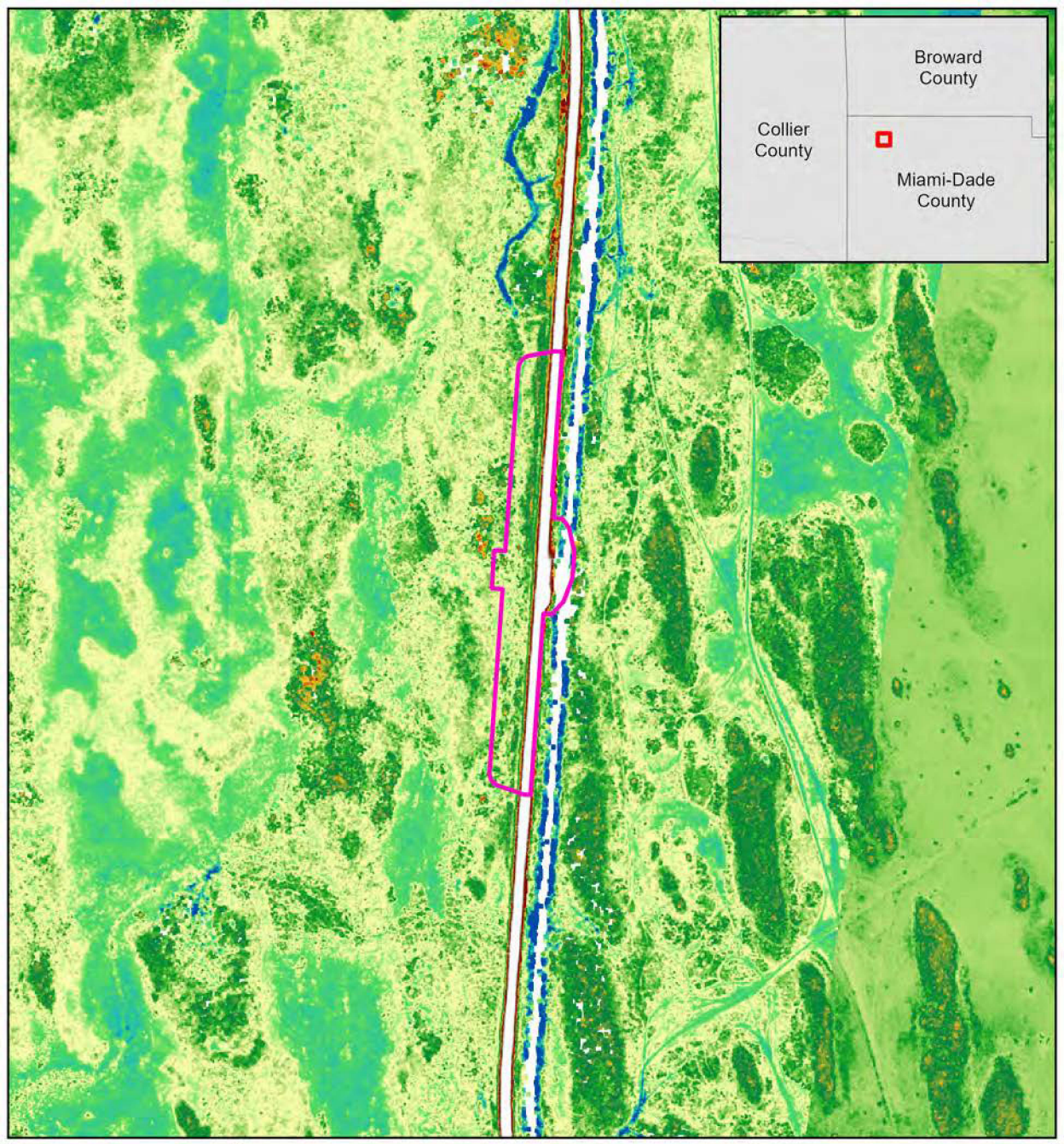
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226A

0 200 Meters

N



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Jacksonville District

Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

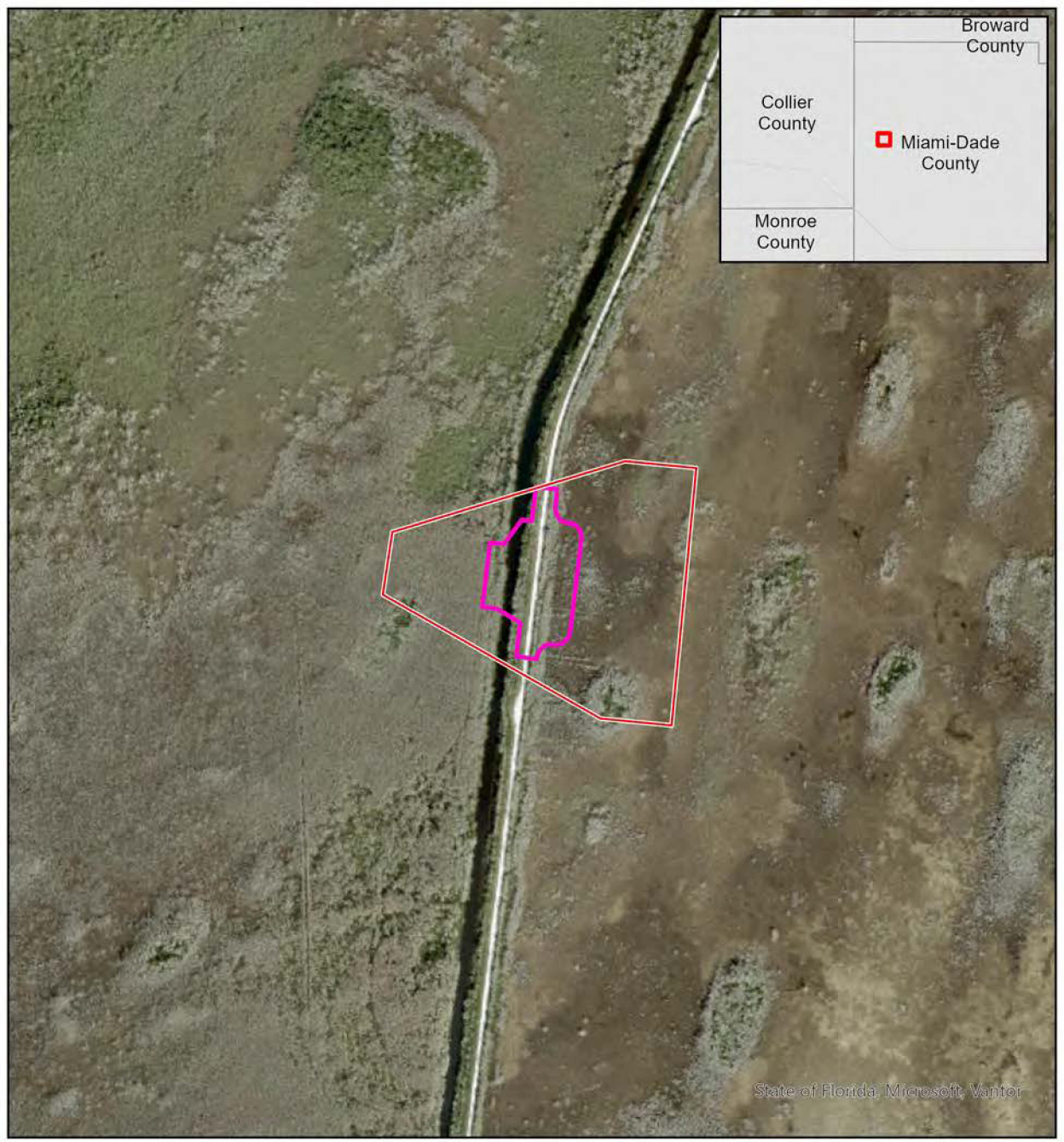
S-229A

Elevation (FT NAVD)

7 13

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

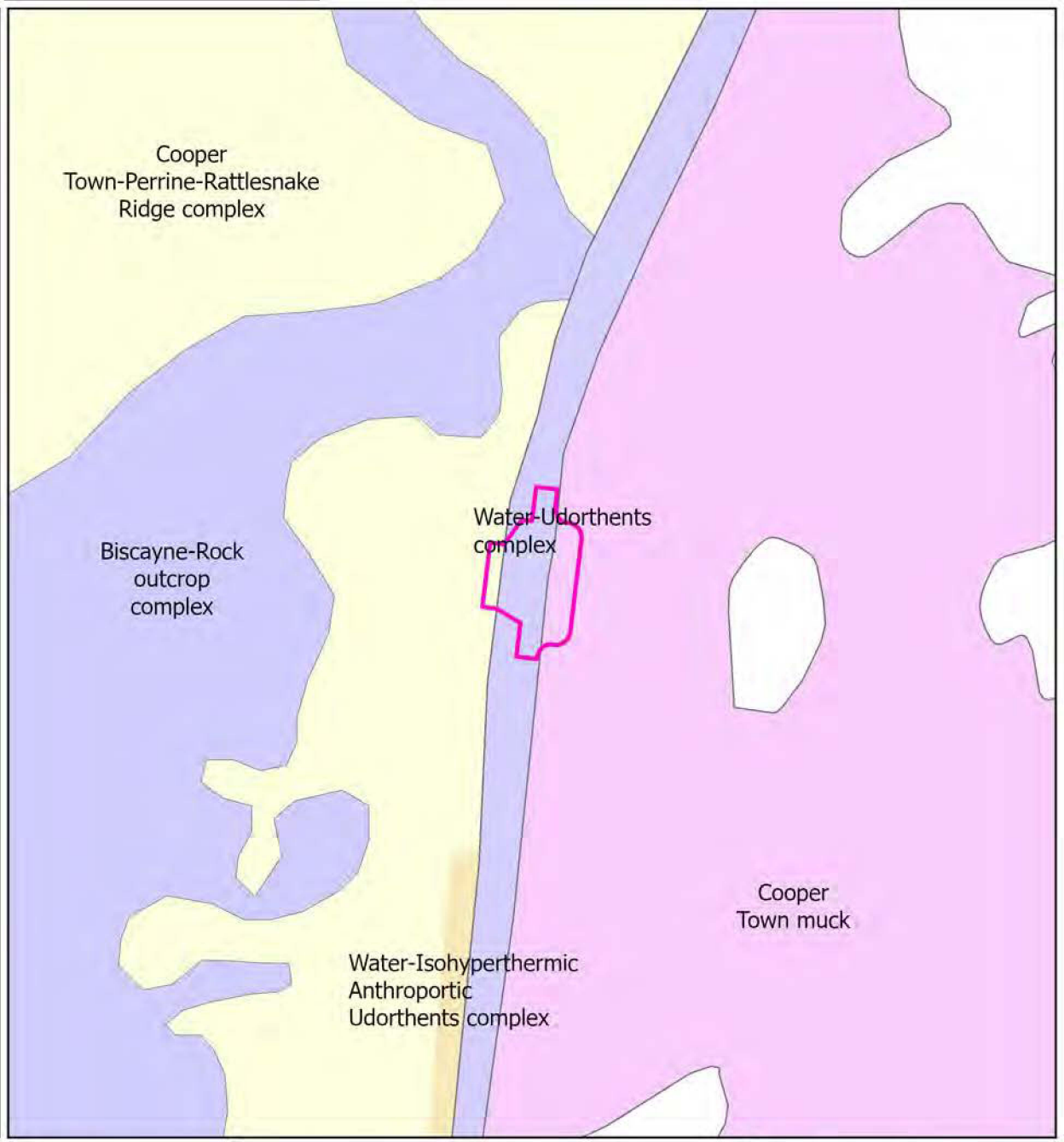
Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

S-229B
APE

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

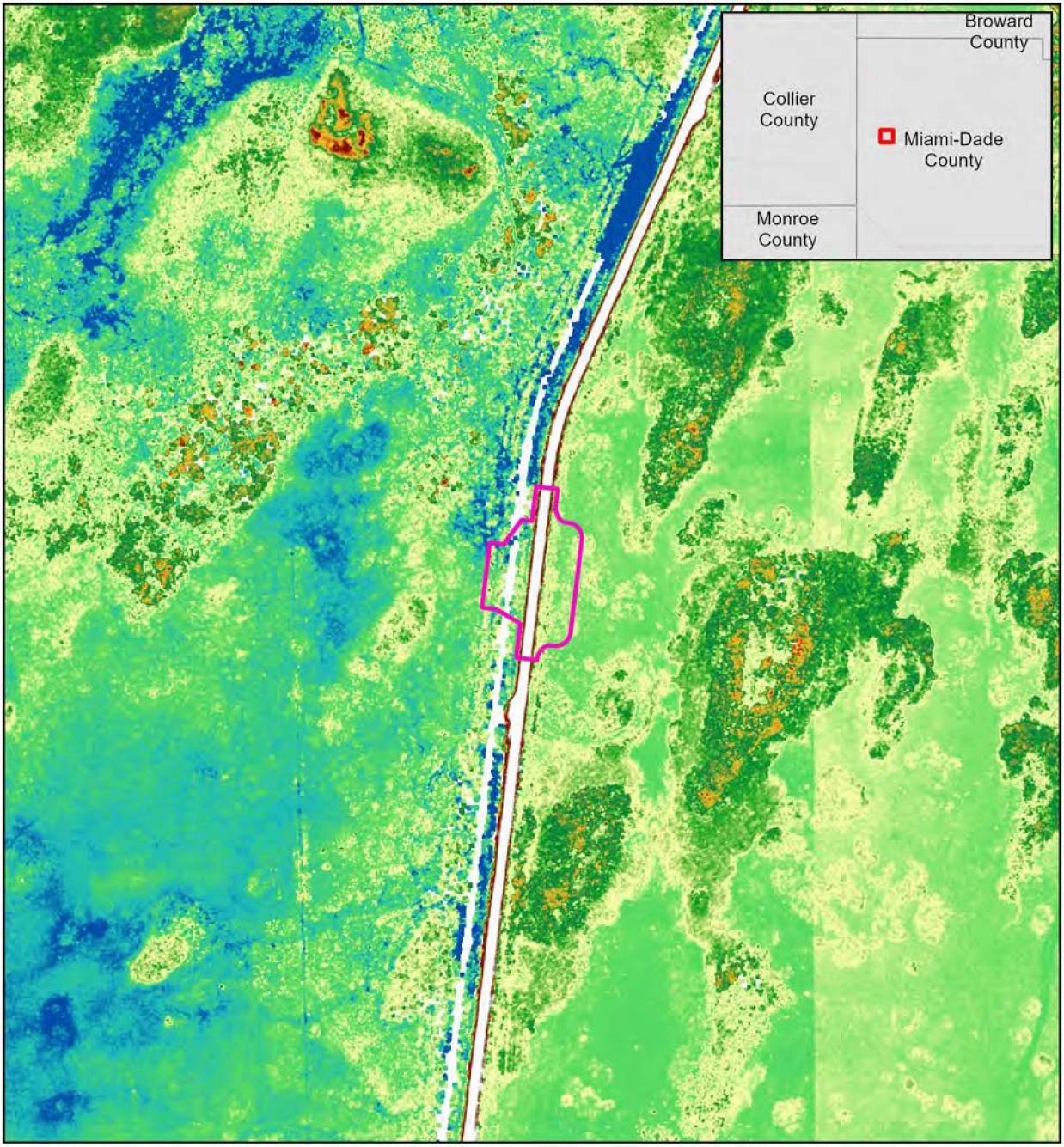
Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

S-229B

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
L-28 Culverts

Miami-Dade County
Florida

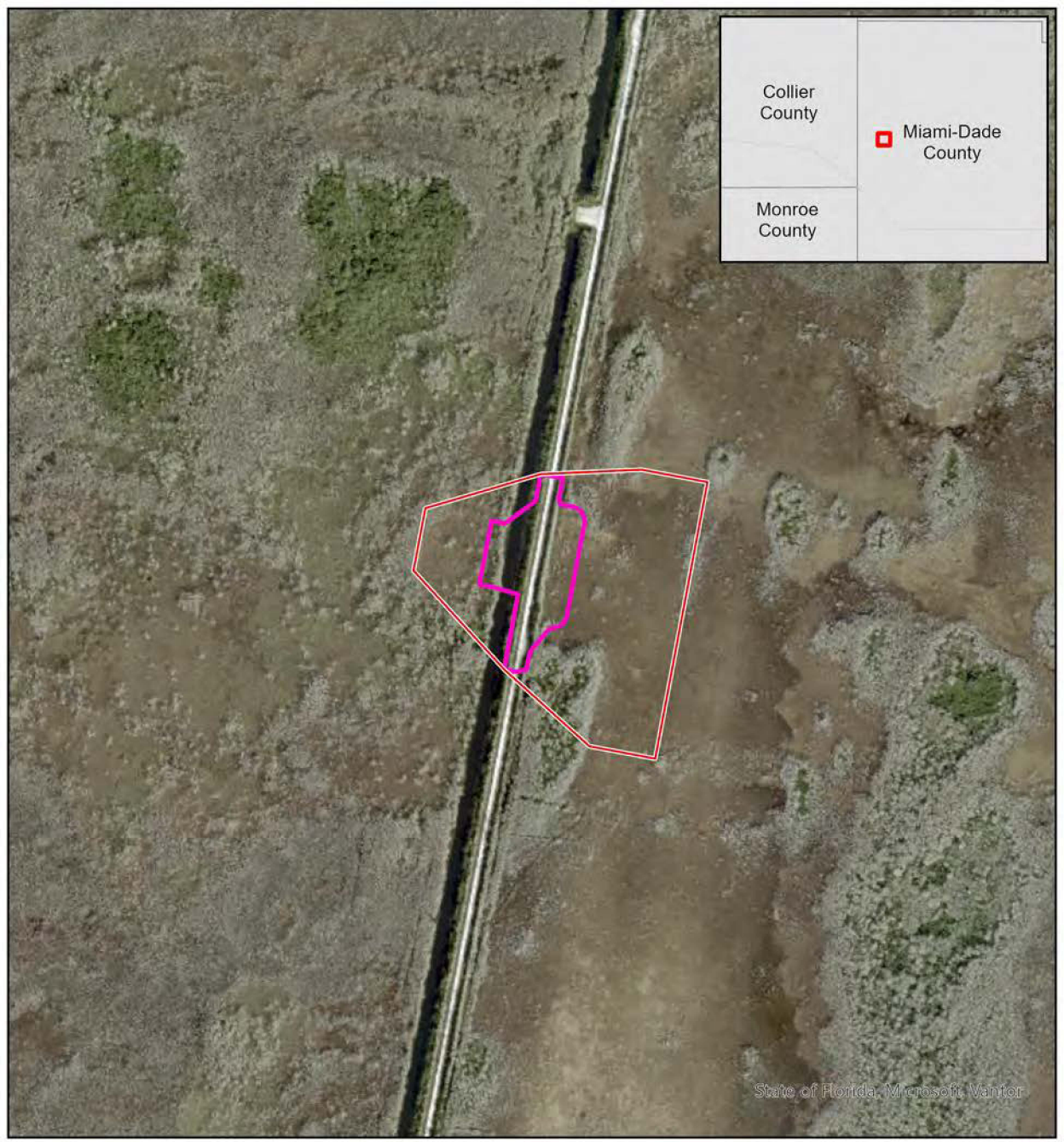
S-229B

Elevation (FT NAVD)

7 13

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

S-229C
APE

0 200 Meters

N

US Army Corps of Engineers ®
Jacksonville District

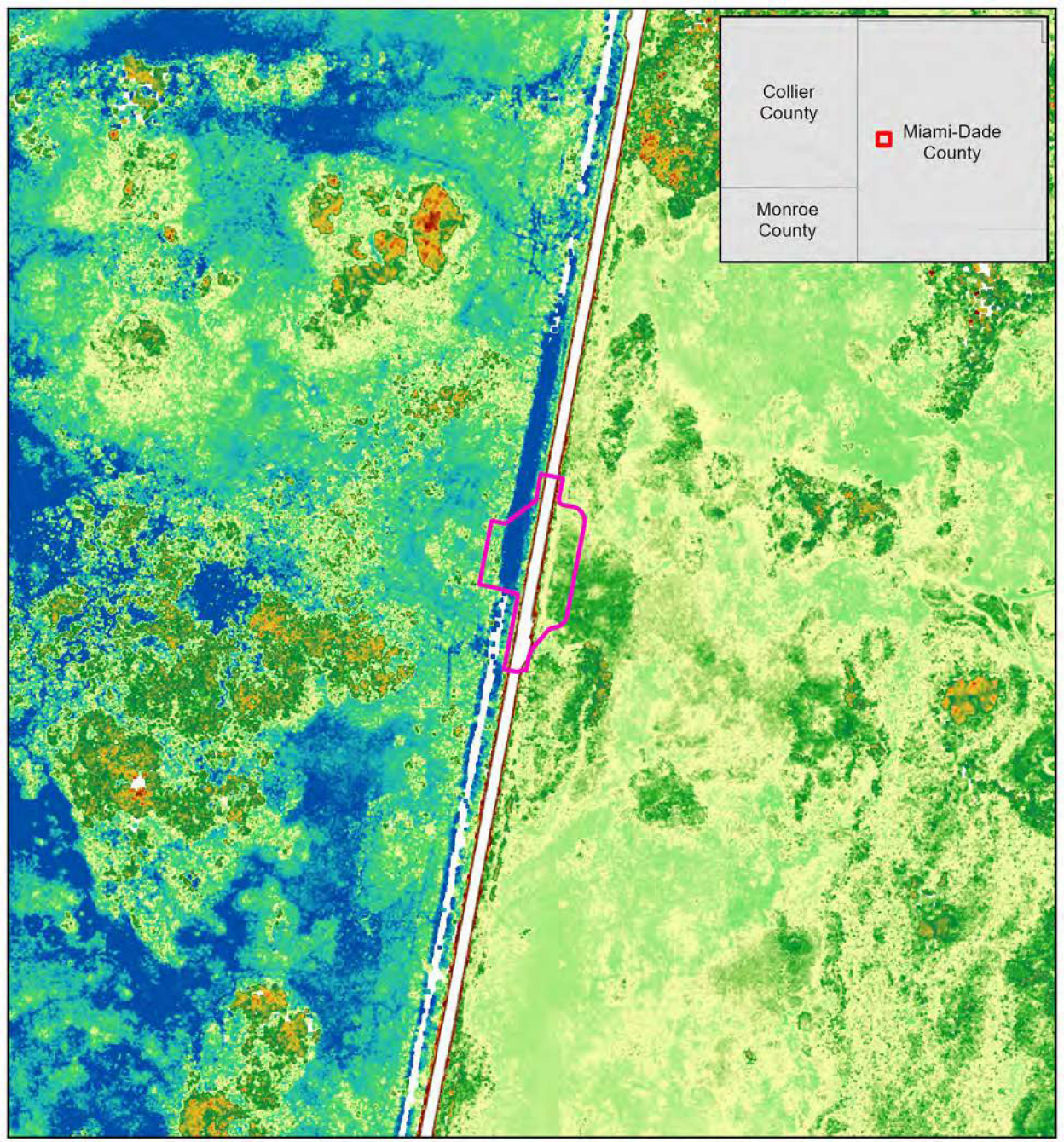
Western Everglades
Restoration Project
11-Mile Road Culverts

Collier County
Florida

S-226C

0 200
Meters

N

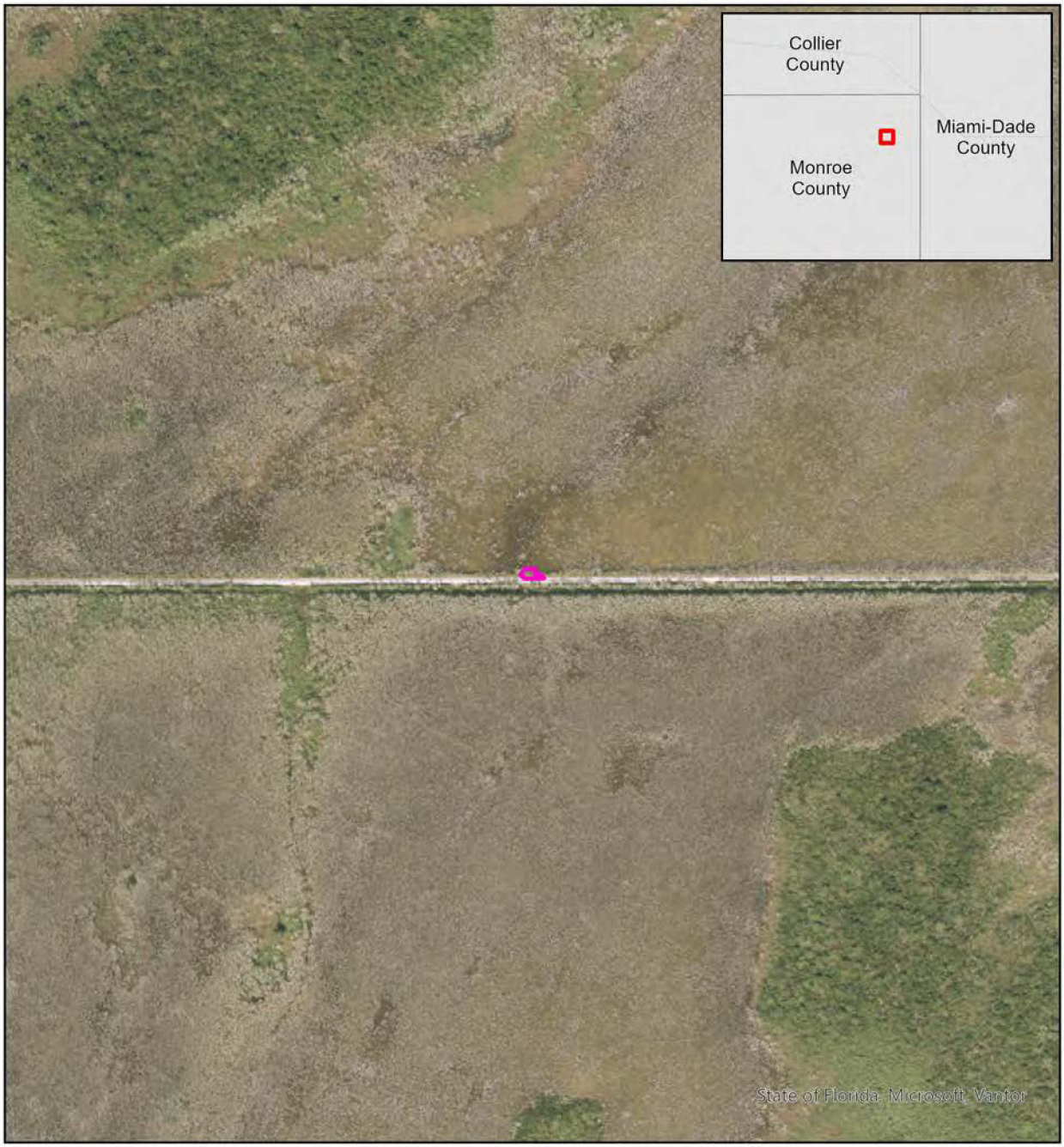


US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
L-28 Culverts

Miami-Dade County
Florida

S-229C
Elevation (FT NAVD)
7
13
0
200
Meters
N



US Army Corps
of Engineers ®
Jacksonville District

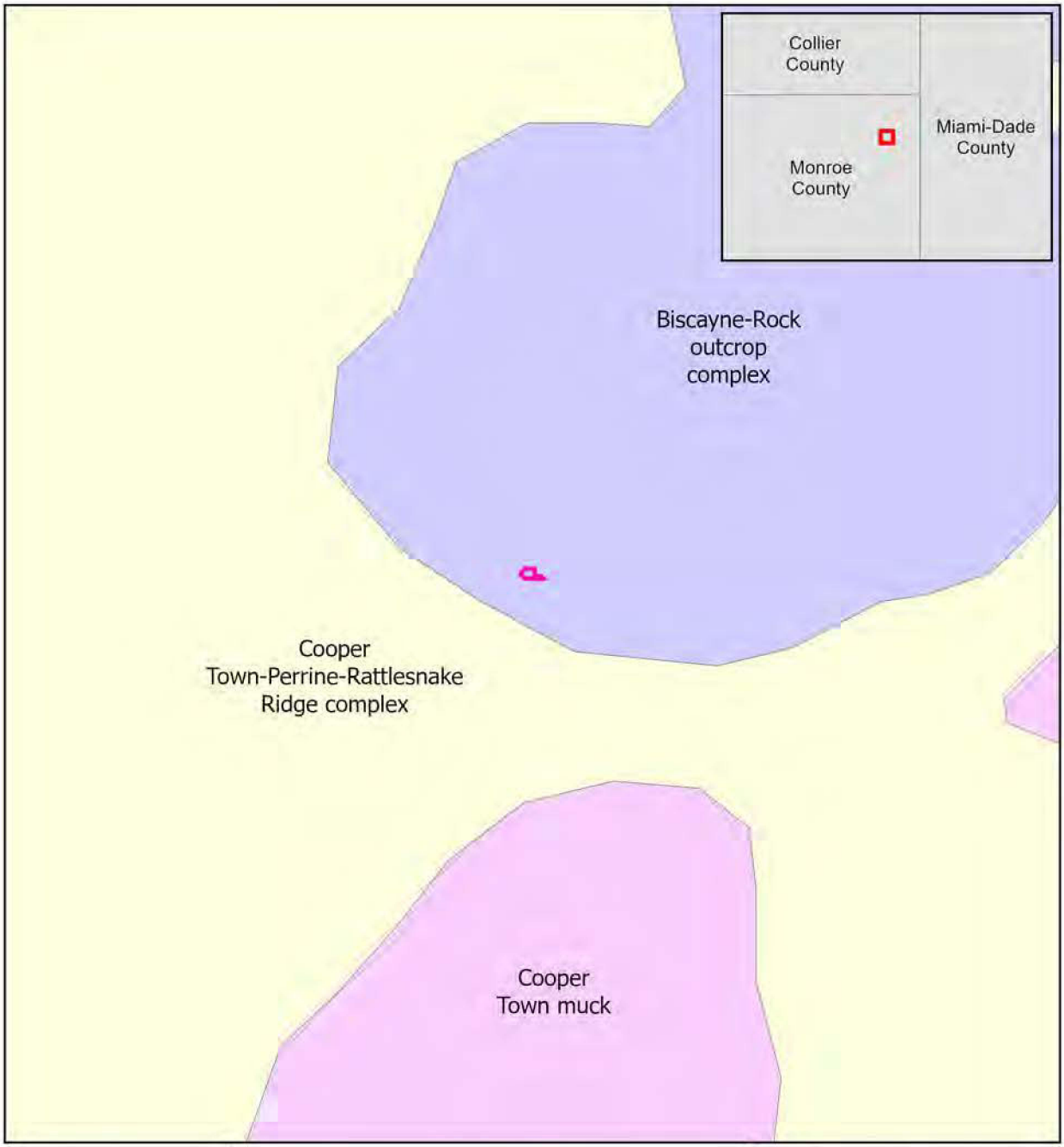
Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

LOOP1_H

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

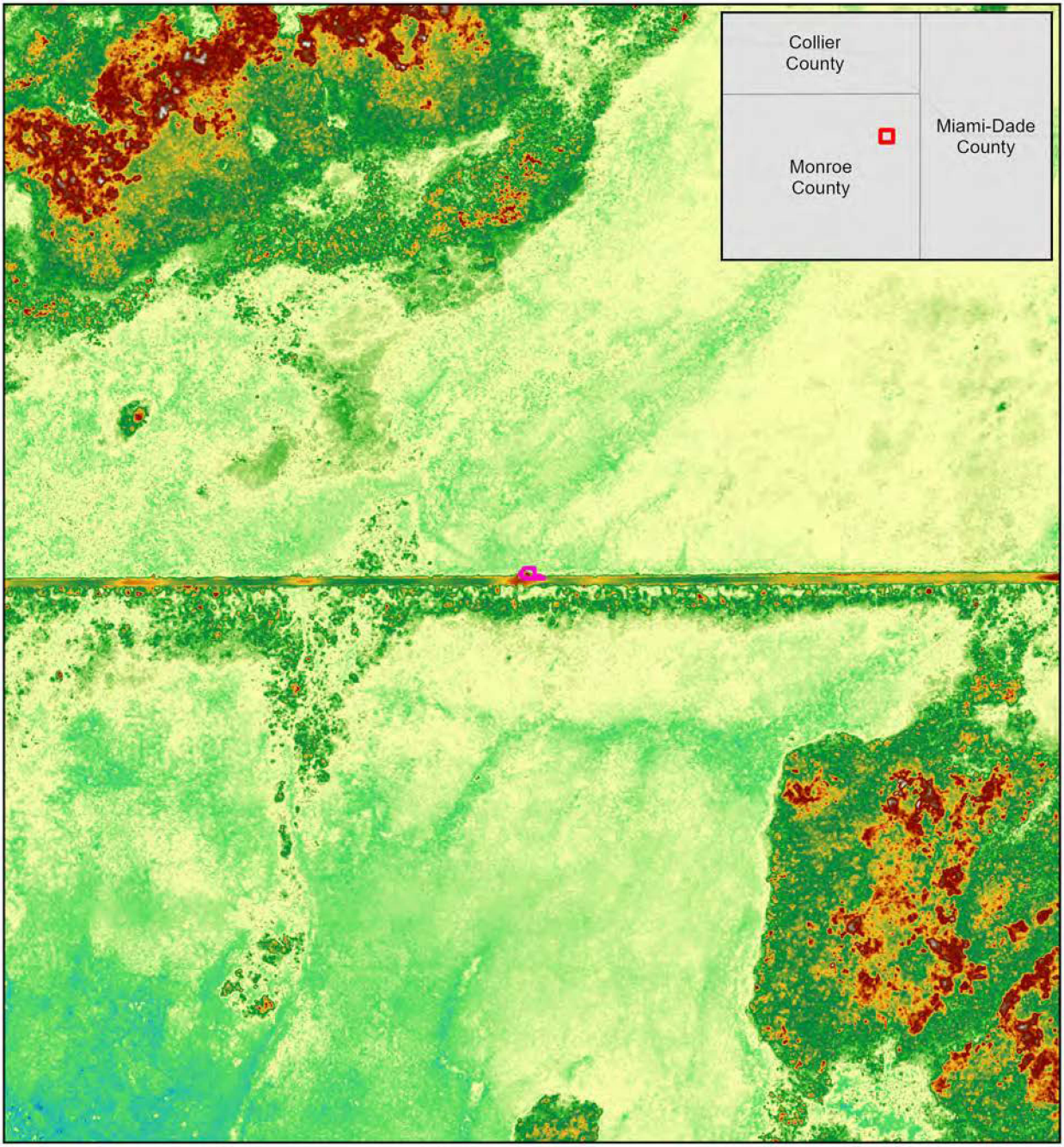
Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

Loop 1 H

0 200 Meters

N

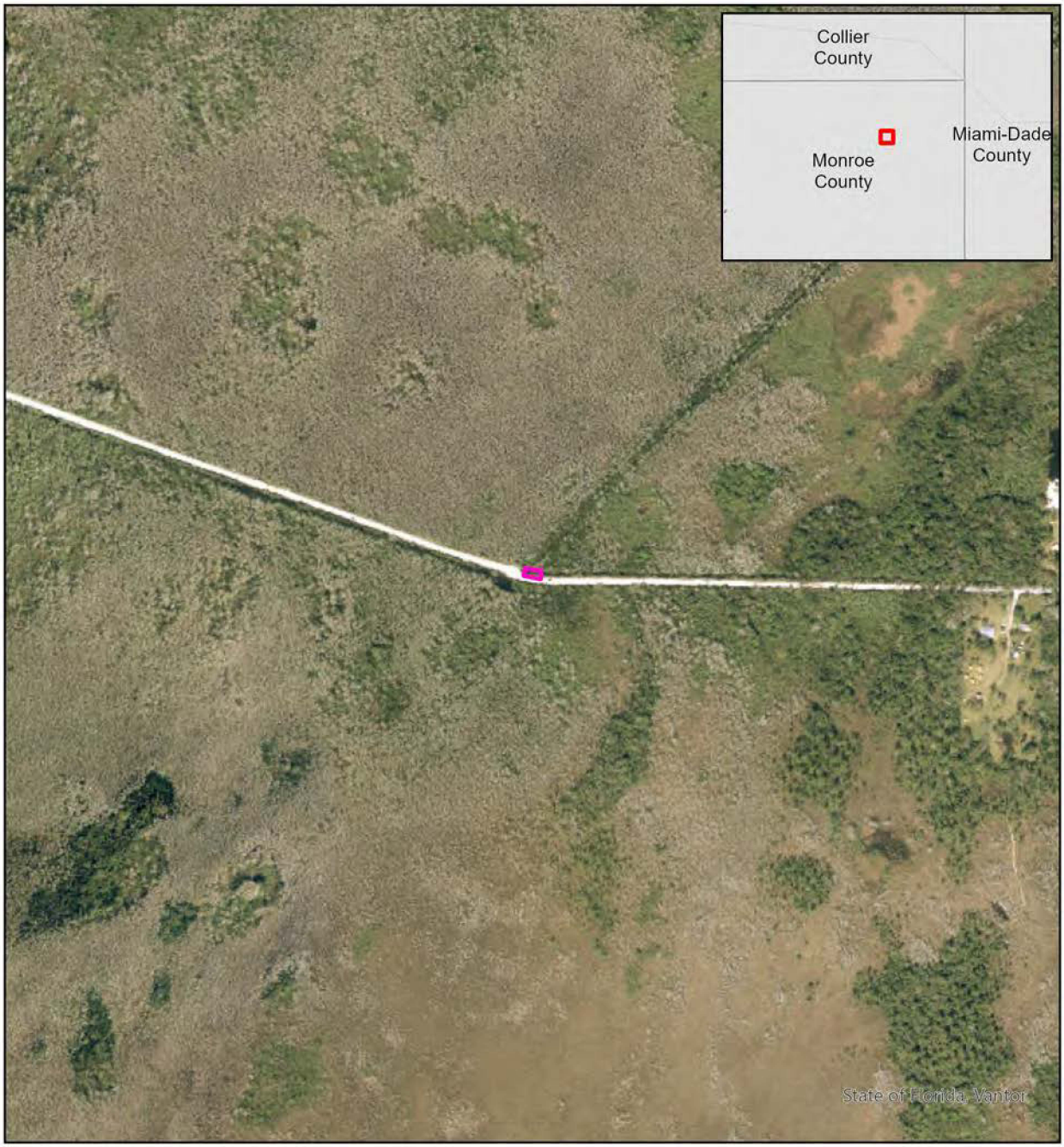


US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

Loop 1 H
Elevation (M NAVD)
1.2
2.1
0
200
Meters
N



US Army Corps
of Engineers ®
Jacksonville District

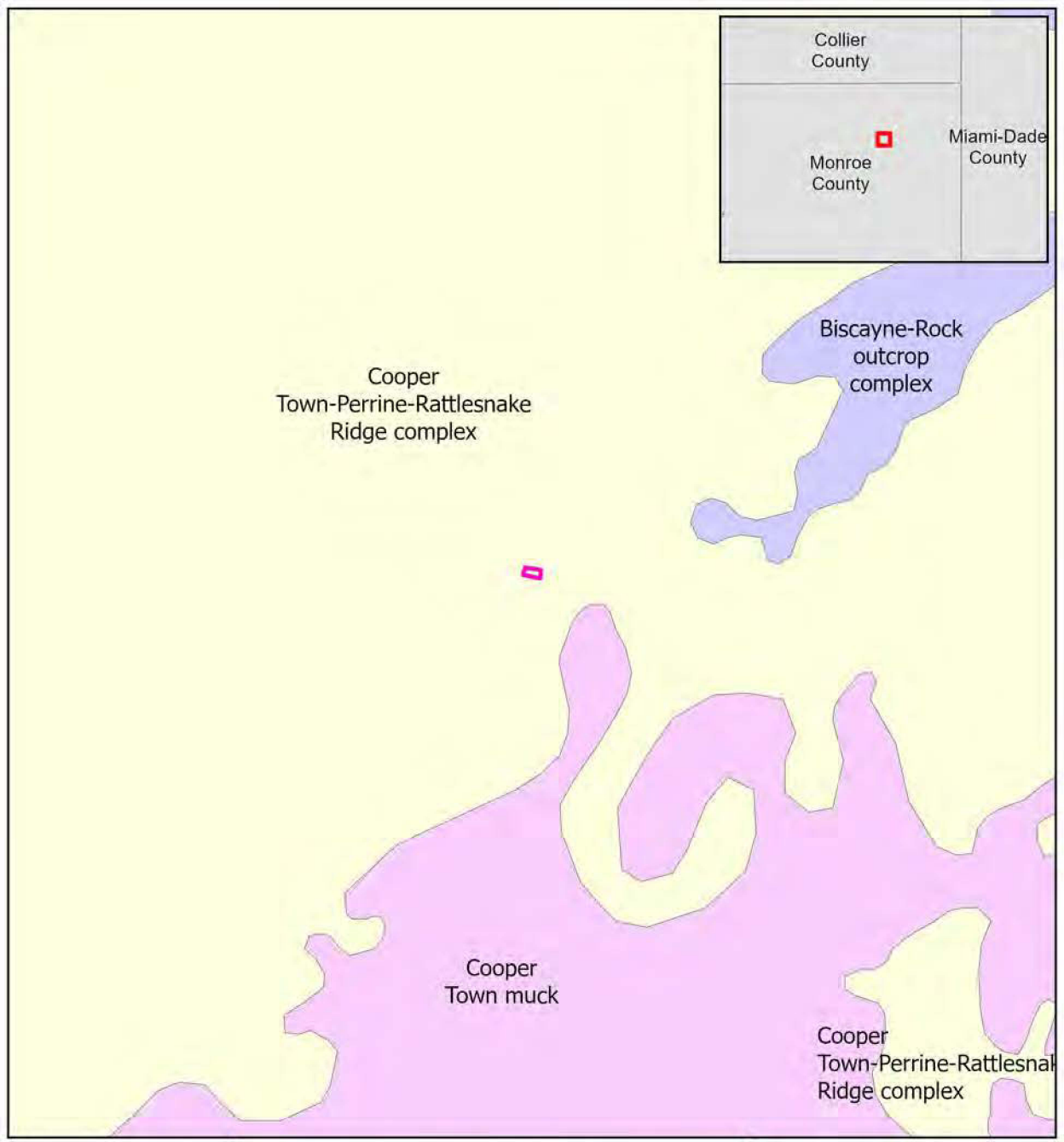
Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

LOOP2_H

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

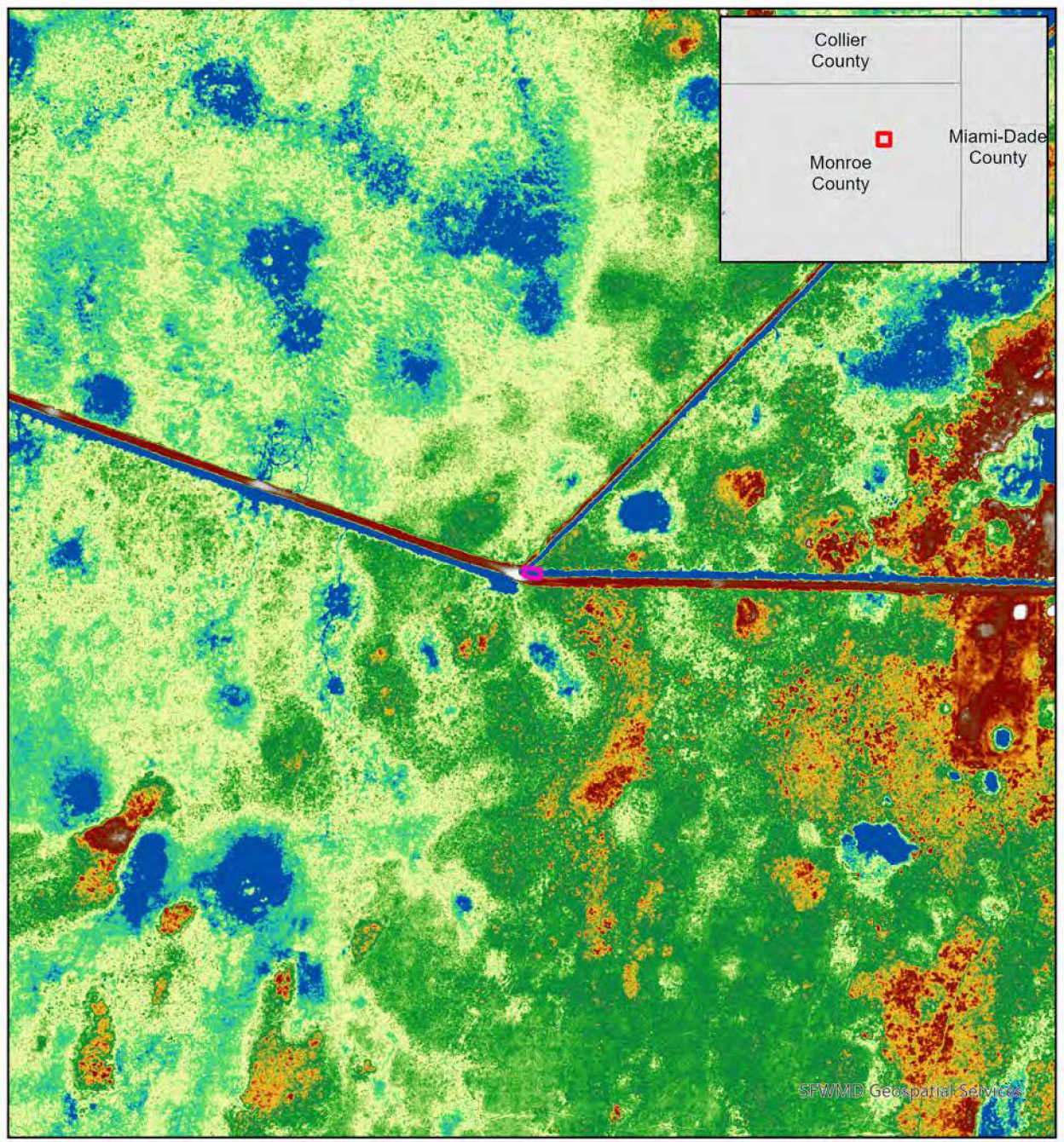
Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

LOOP2_H

0 200
Meters

N

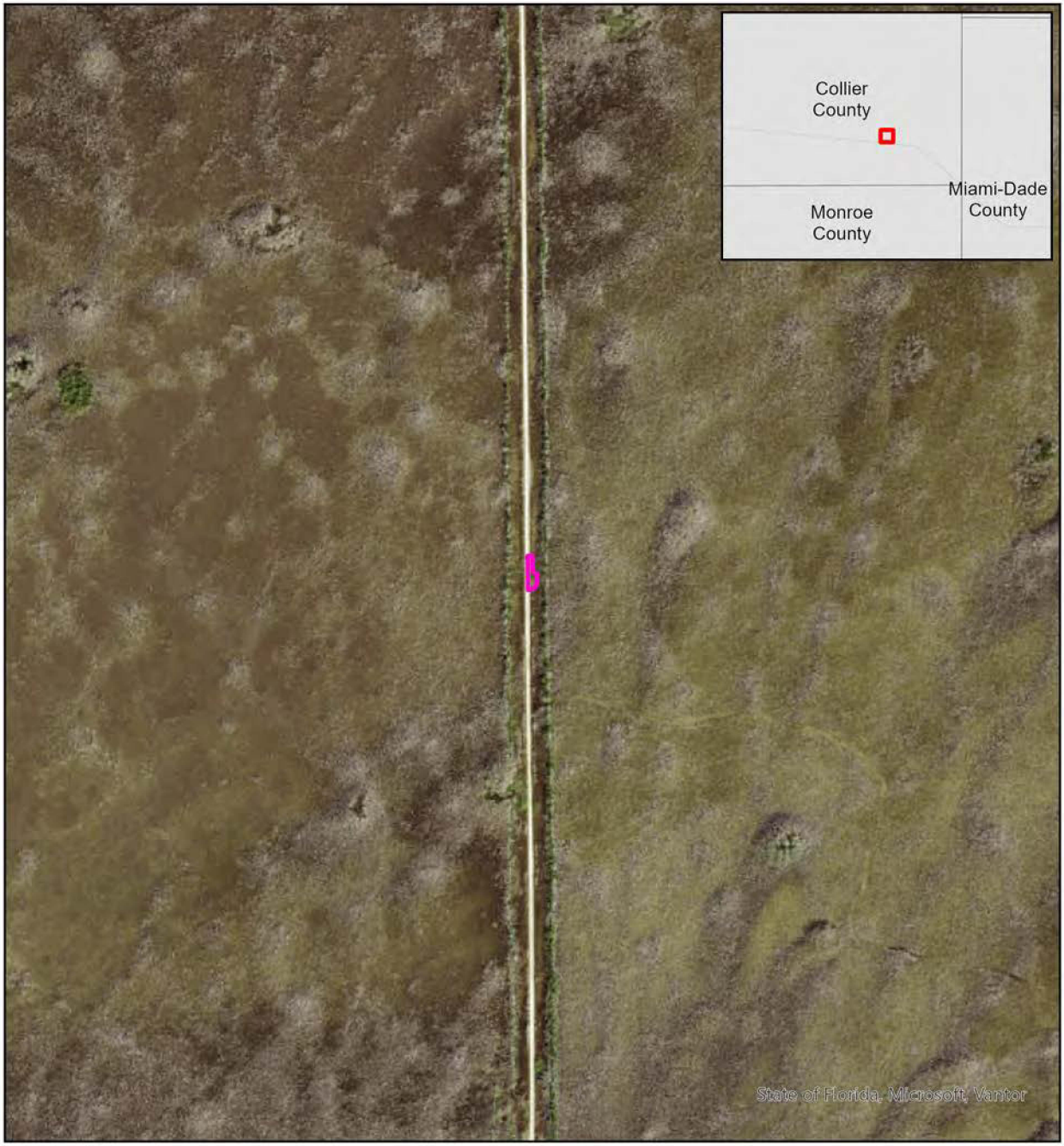


US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Monroe County
Florida

Loop 2 H
Elevation (ft NVGD)
6
10
0
200
Meters
N



US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0011

0 200
Meters

N

US Army Corps of Engineers
Jacksonville District

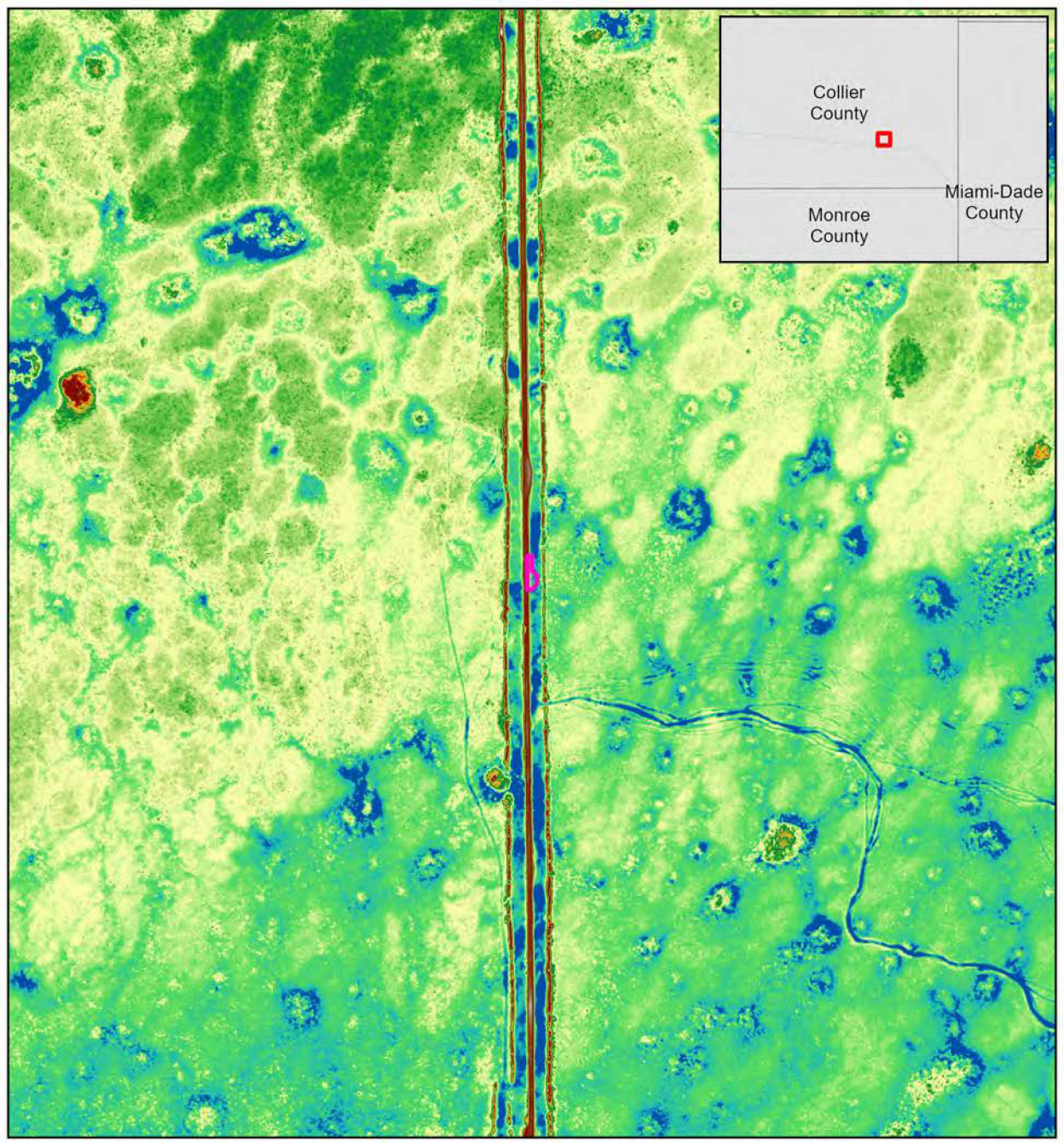
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0011

0 200 Meters

N

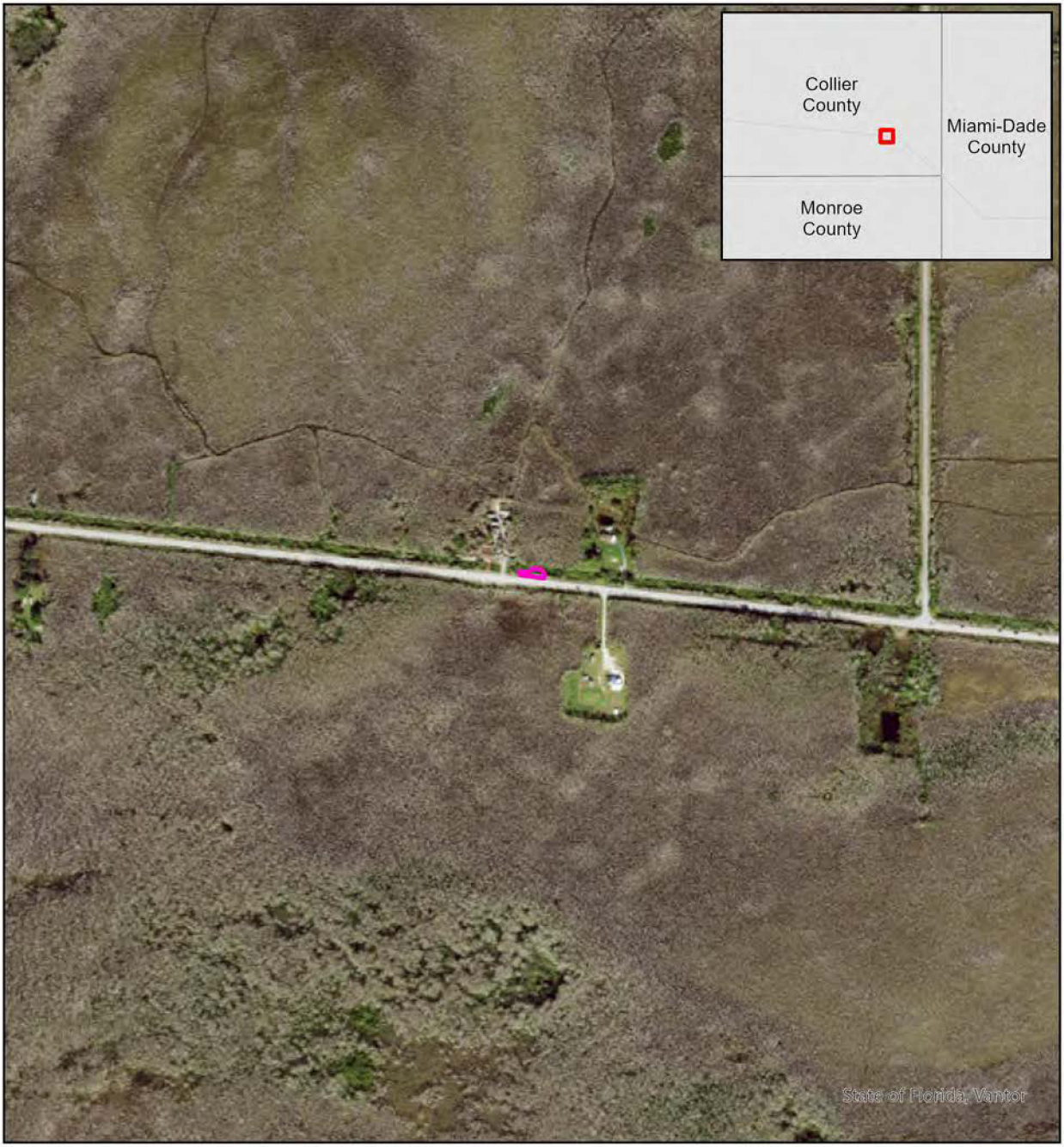


US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0011
Elevation (M NAVD)
2
3
0
200
Meters
N



US Army Corps
of Engineers ®
Jacksonville District

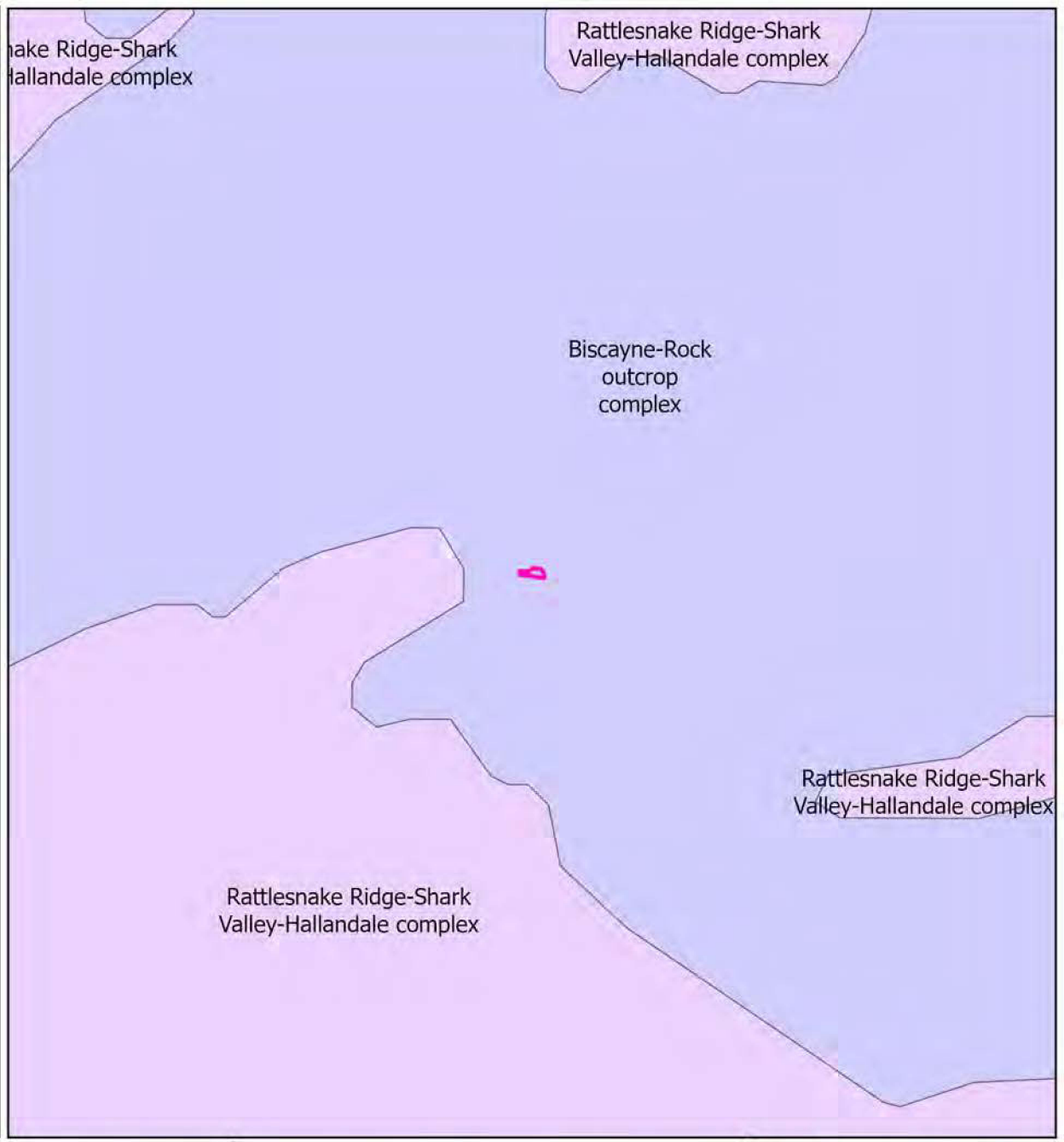
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0012

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

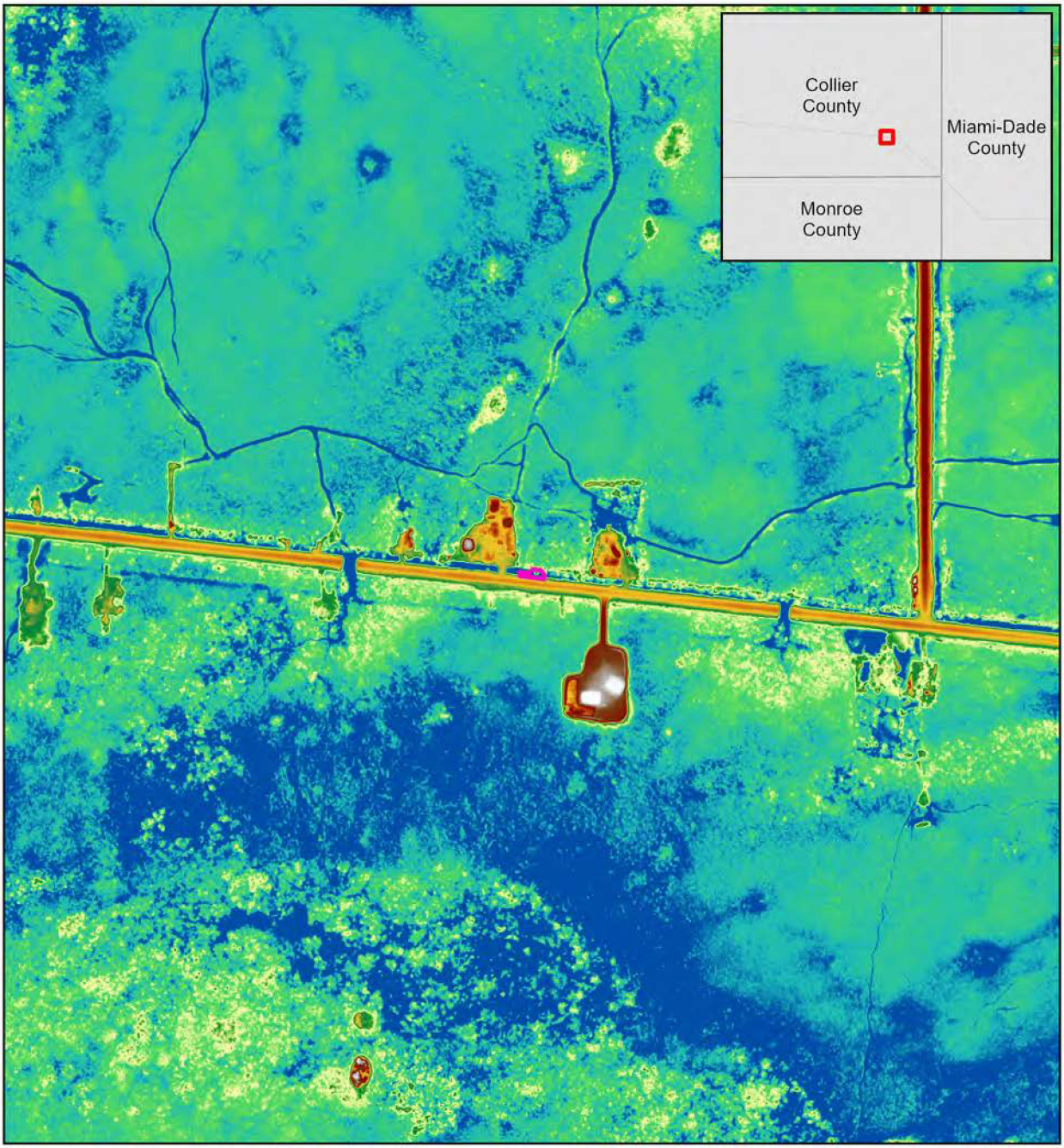
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0012

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0012
Elevation (M NAVD)
2
4
0
200
Meters
N

US Army Corps
of Engineers ®
Jacksonville District

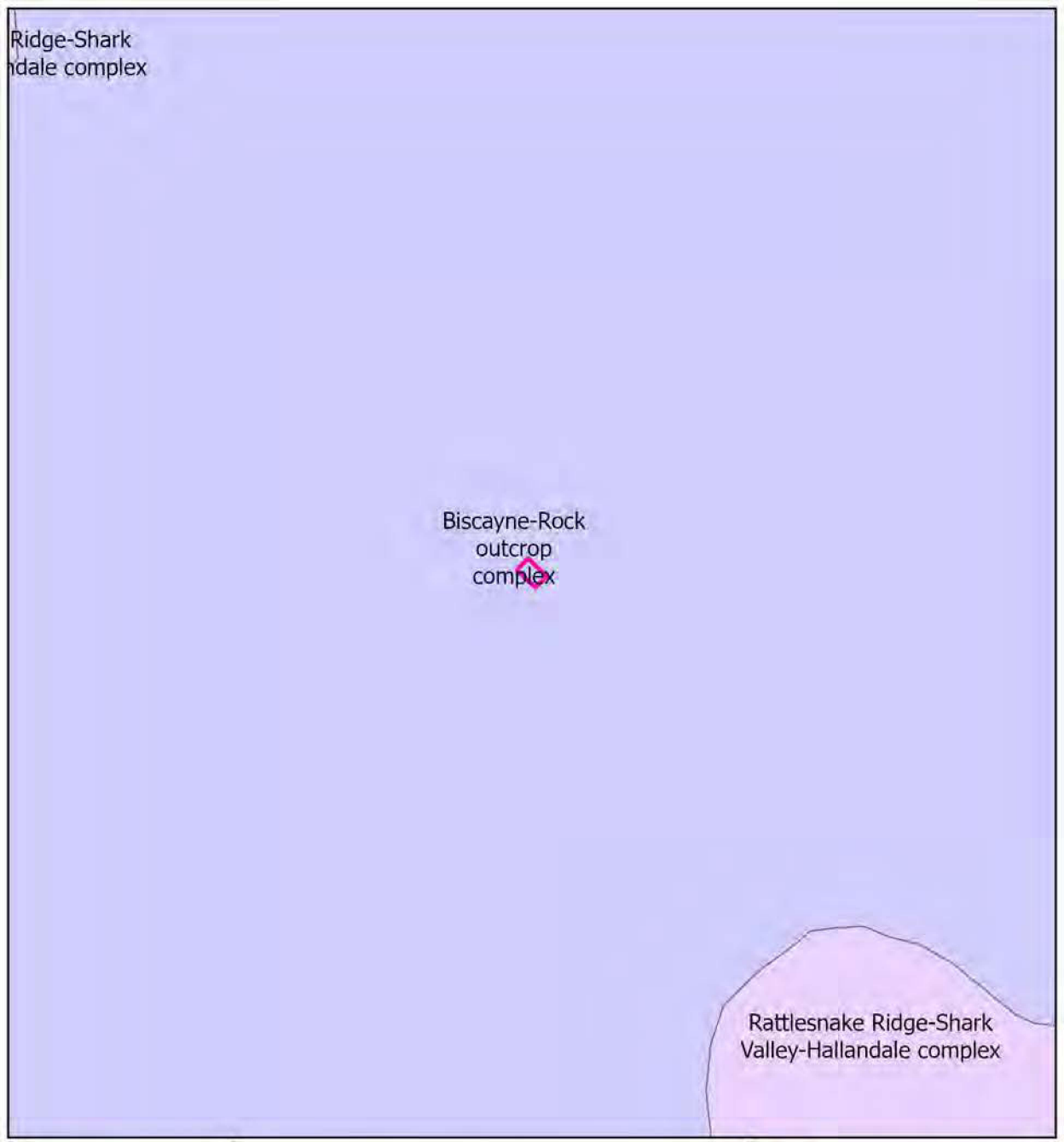
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0013

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

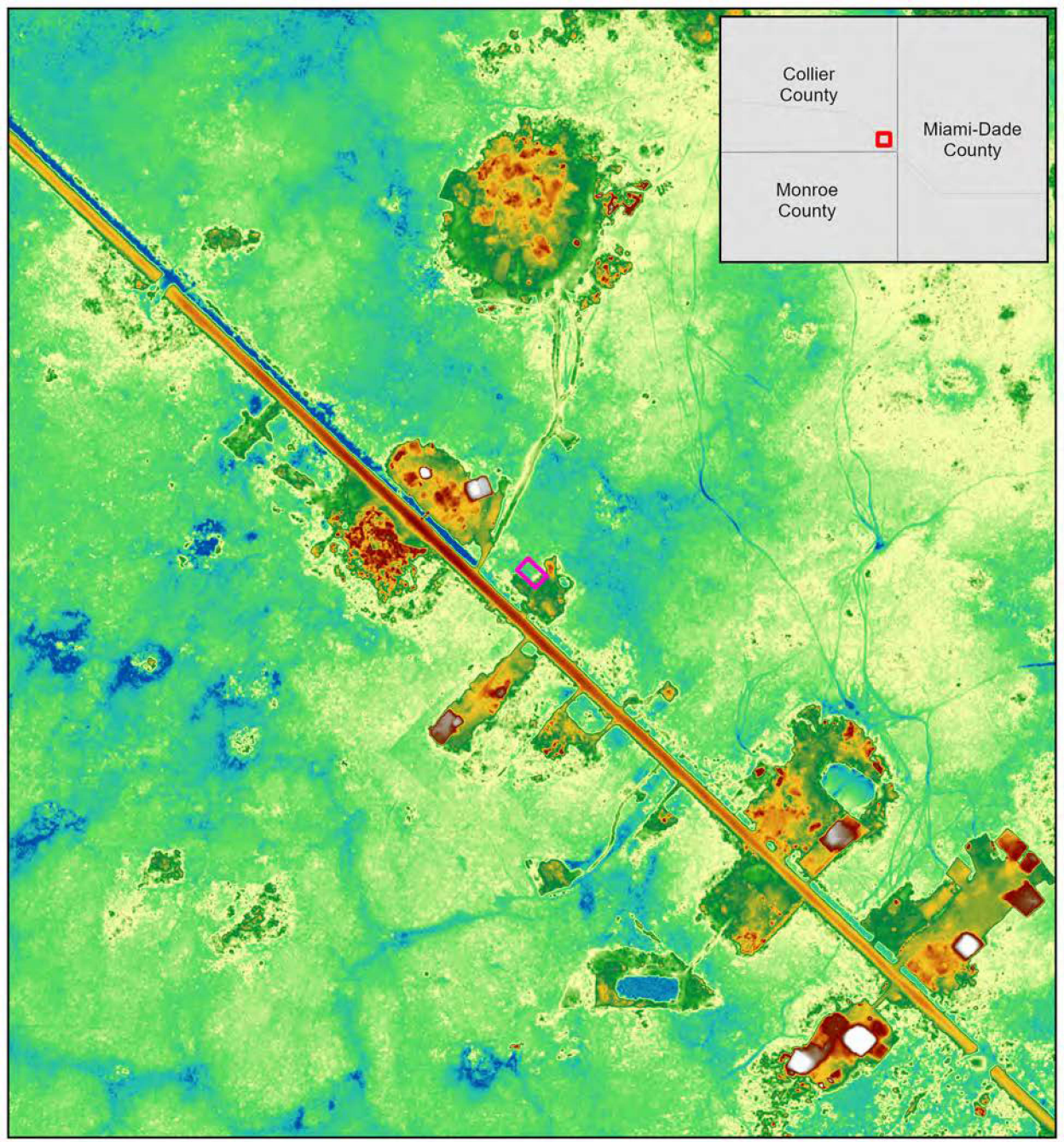
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0013

0 200
Meters

N



US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0013

Elevation (M NAVD)

2 4

0 200
Meters

N

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Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0014

0 200
Meters

N

US Army Corps of Engineers ®
Jacksonville District

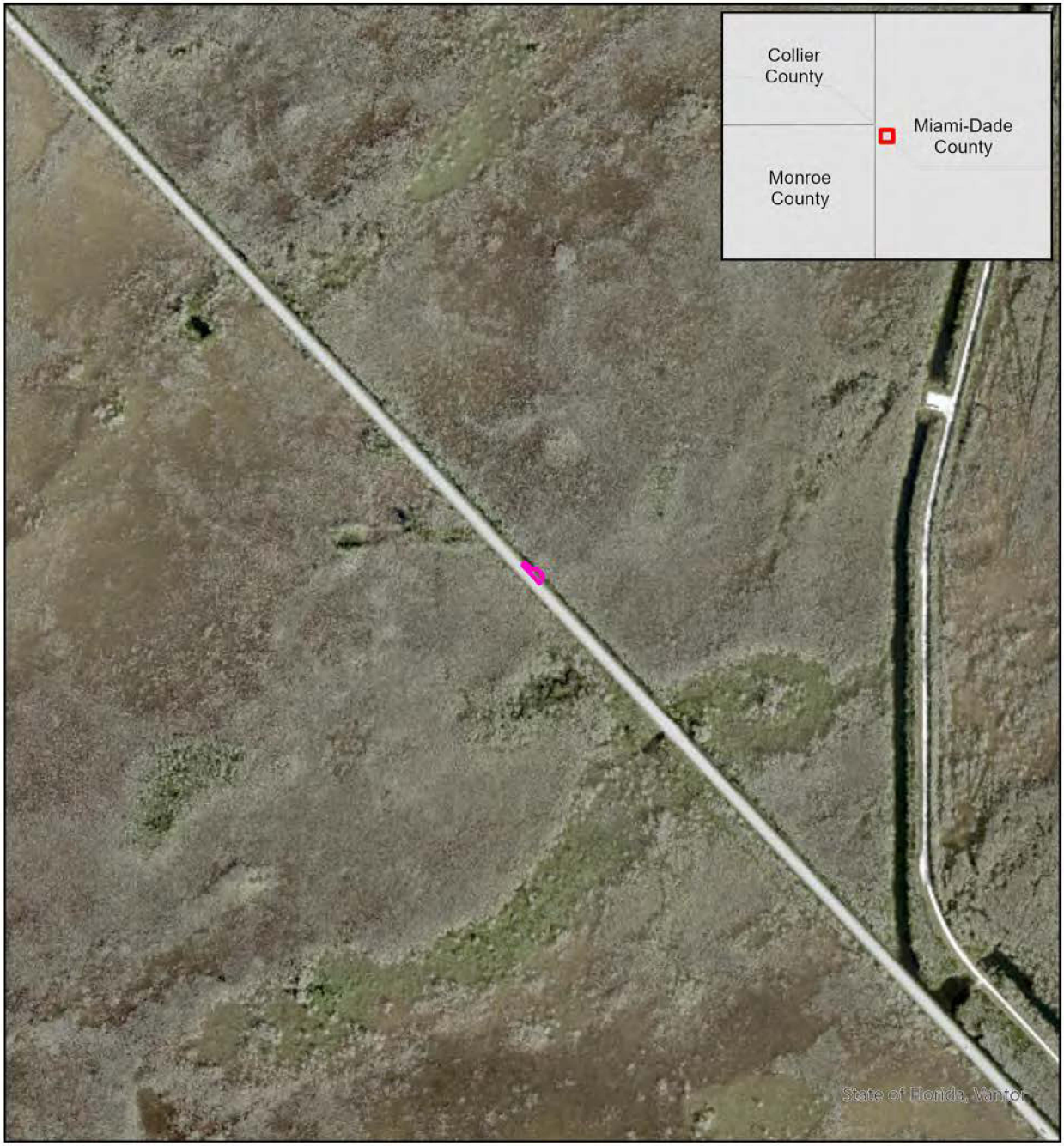
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMI0014

0 200 Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMI0015

0 200
Meters

N

US Army Corps of Engineers ®
Jacksonville District

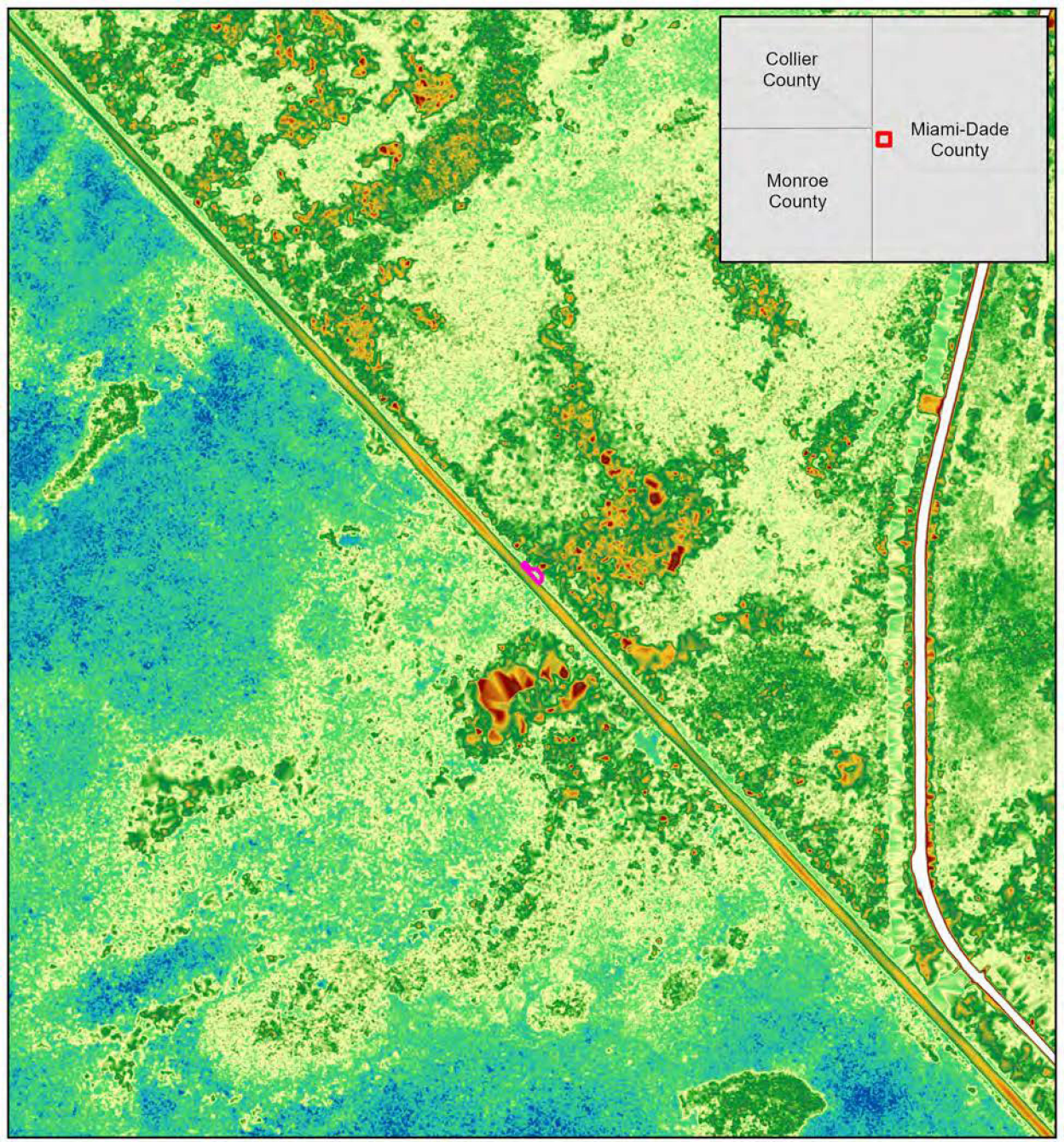
Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMI0015

0 200
Meters

N



US Army Corps
of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMI0015

Elevation (M NAVD)

2.2

4

0

200

Meters

N

US Army Corps
of Engineers ®
Jacksonville District

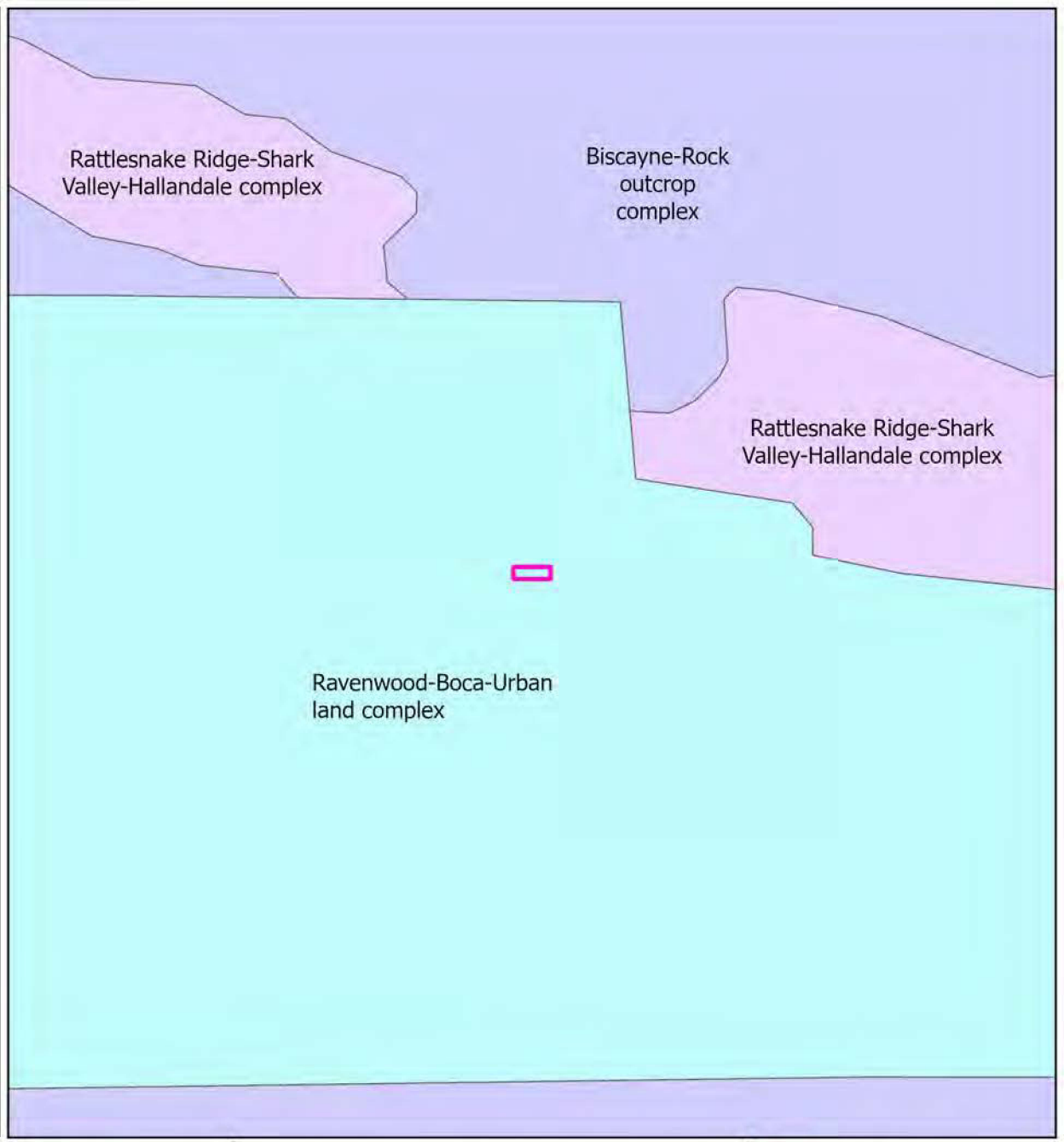
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMIJP01

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

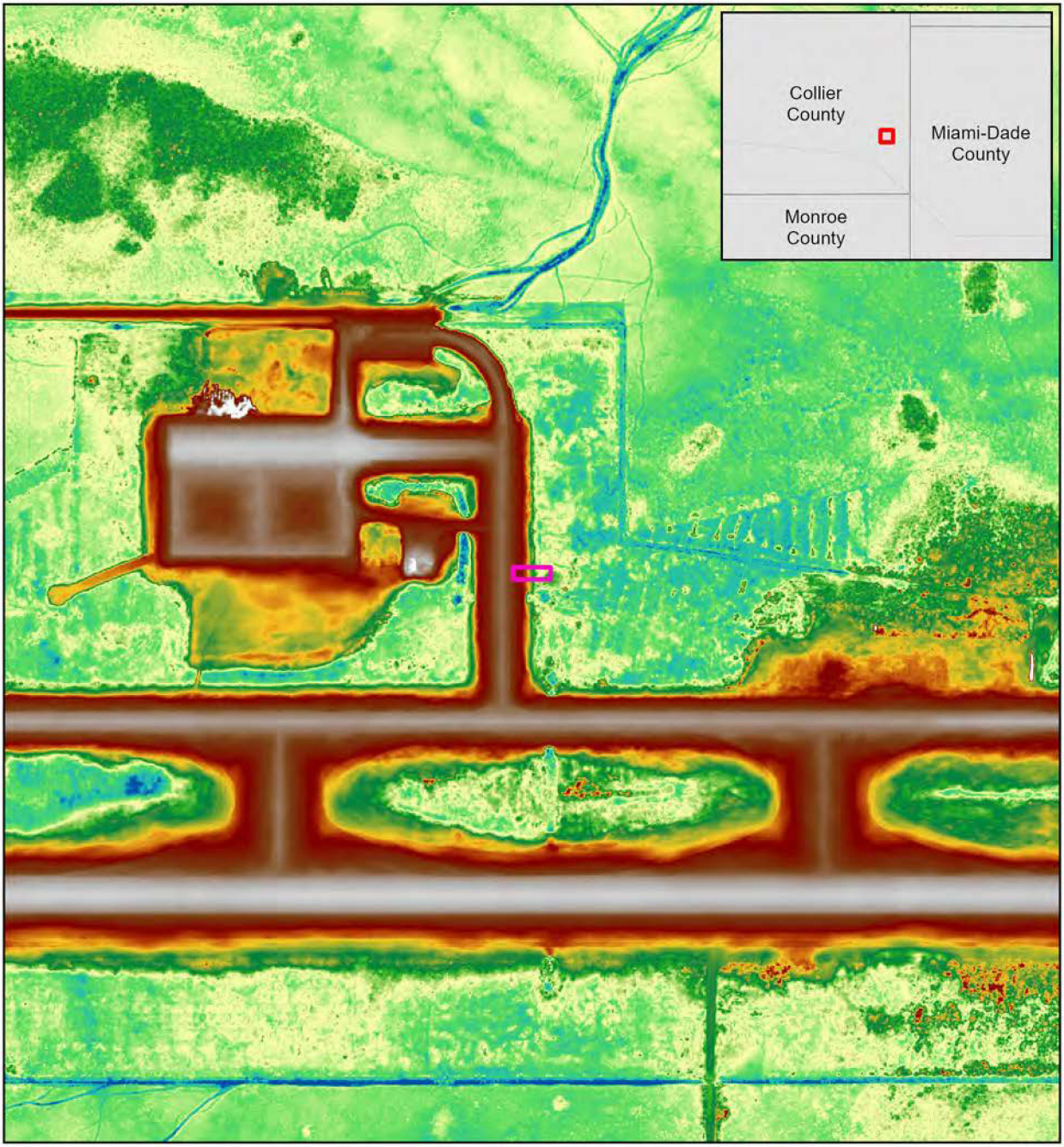
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMIJP01

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project Stilling Wells

Collier County
Florida

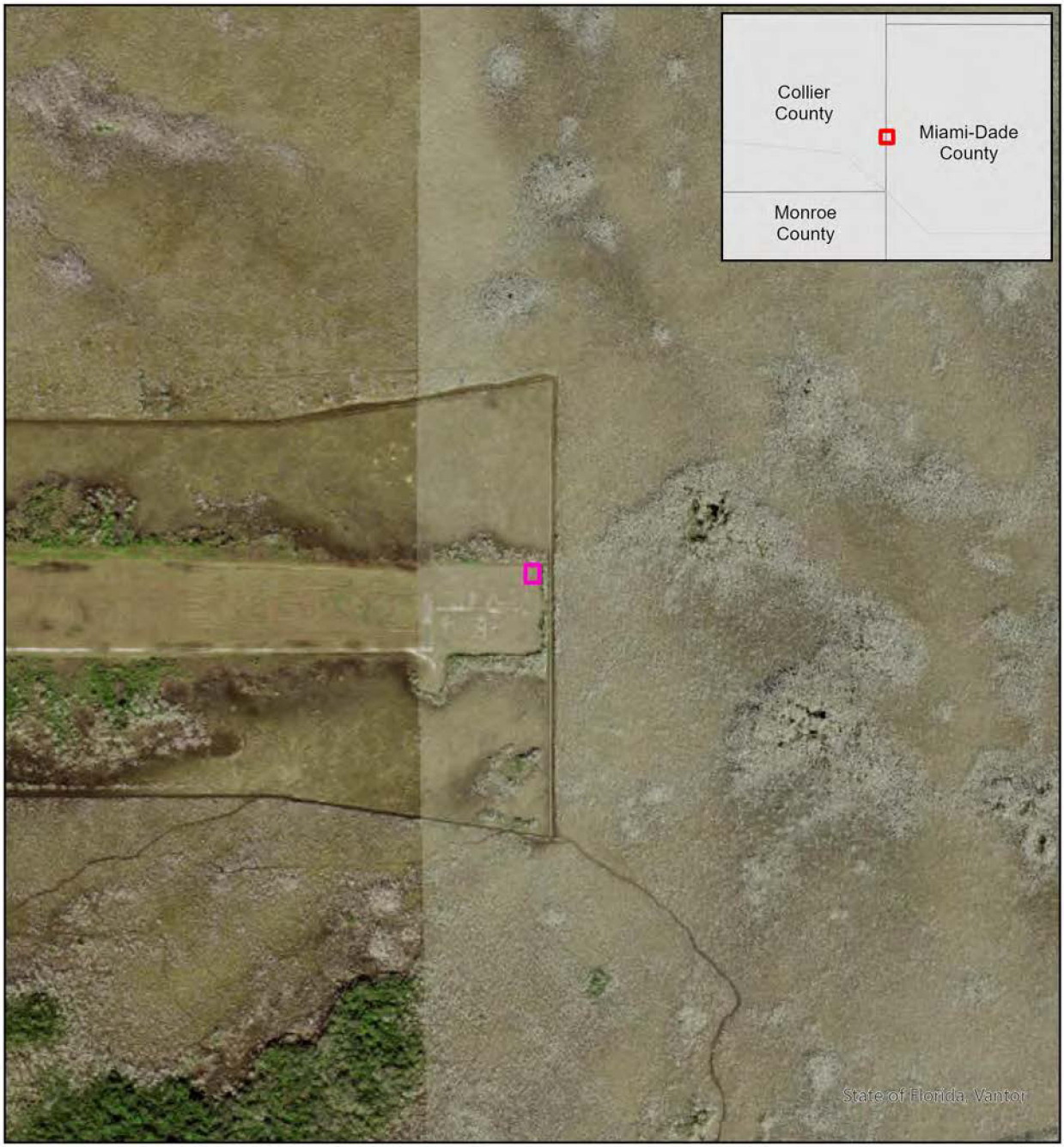
TAMIJP01

Elevation (M NAVD)

6 10

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

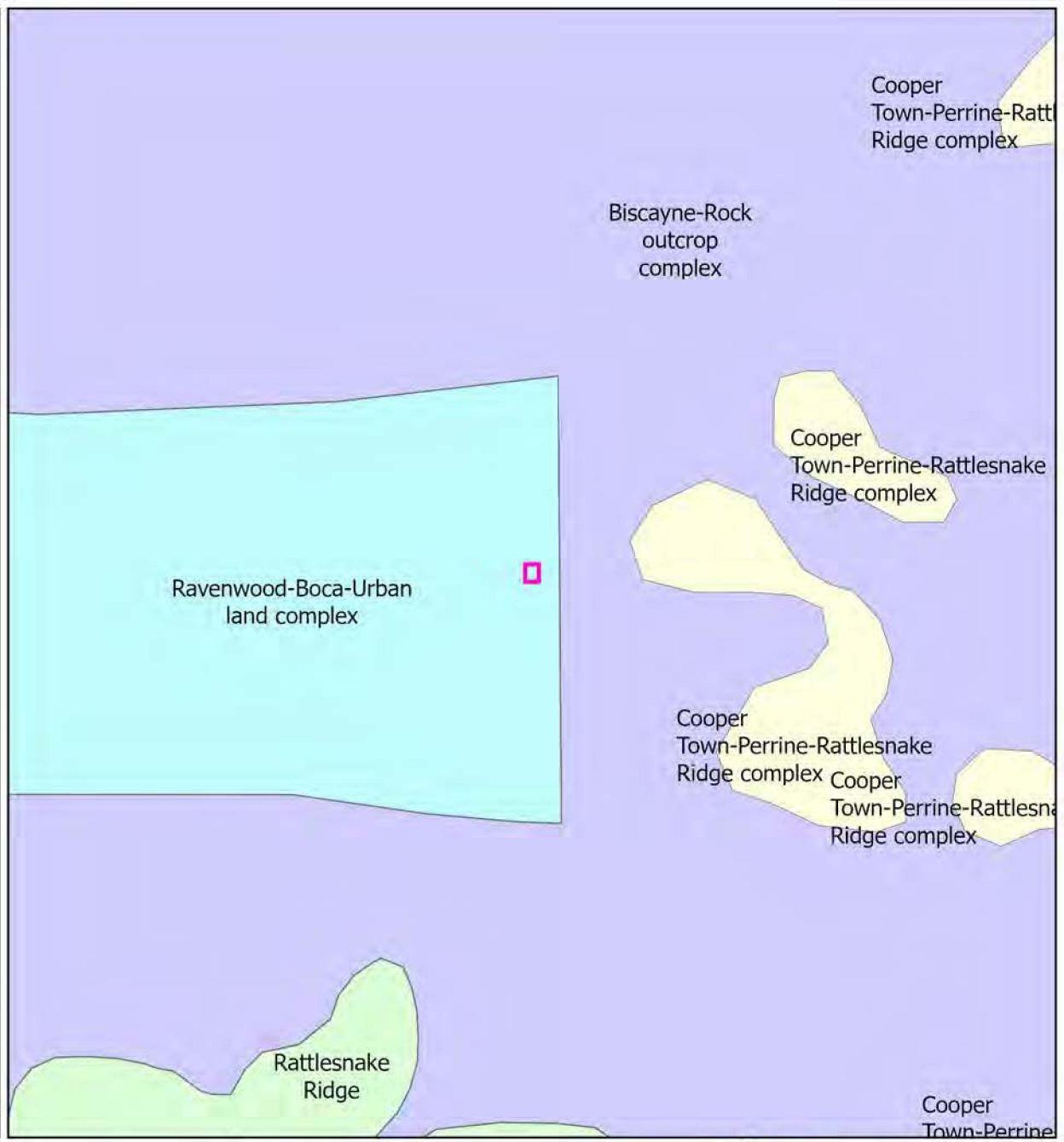
Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMIJP02

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

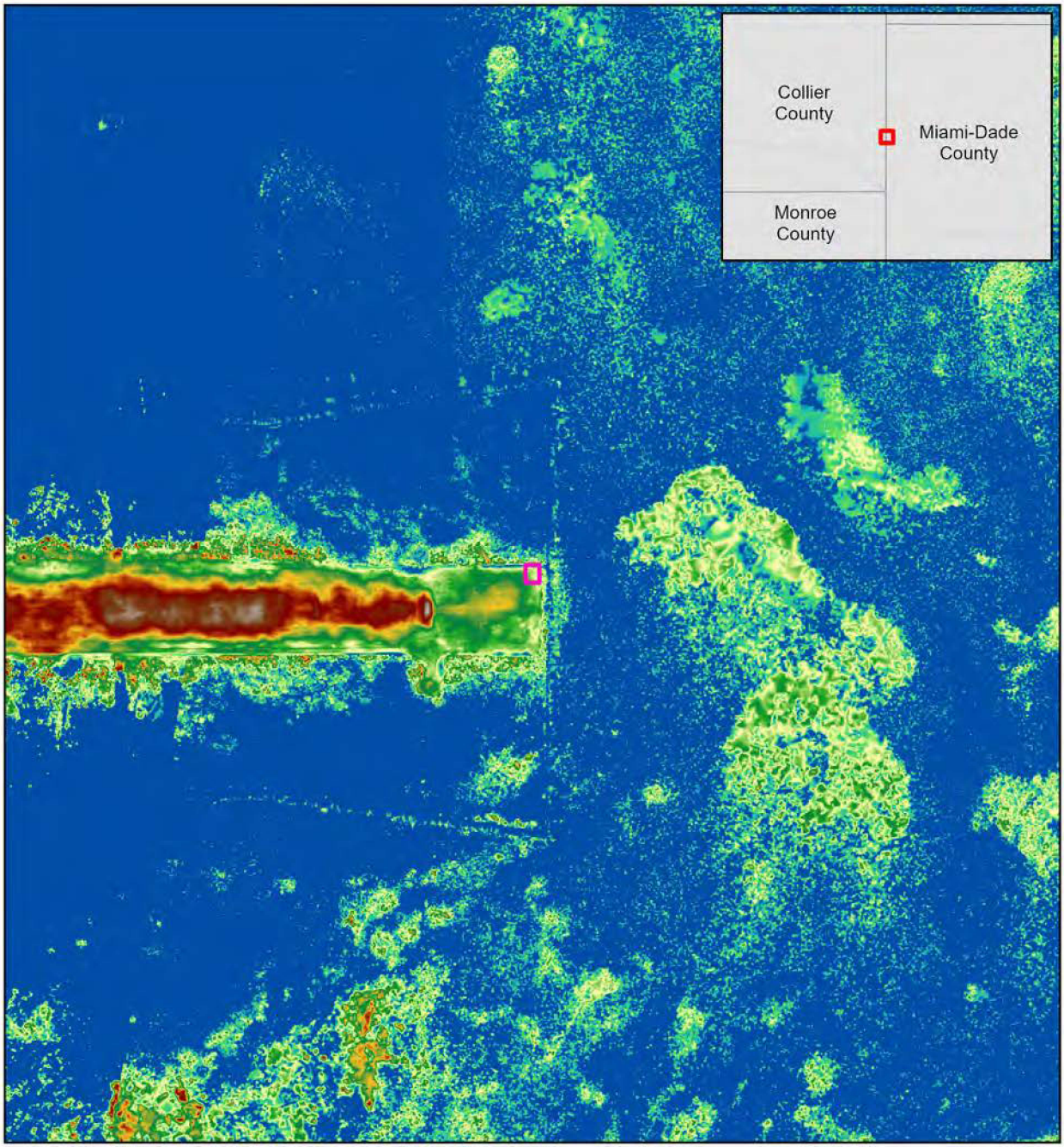
Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMIJP02

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades
Restoration Project
Stilling Wells

Miami-Dade County
Florida

TAMIJP02
Elevation (M NAVD)
2.5
3.5
0
200
Meters
N

US Army Corps of Engineers ®
Jacksonville District

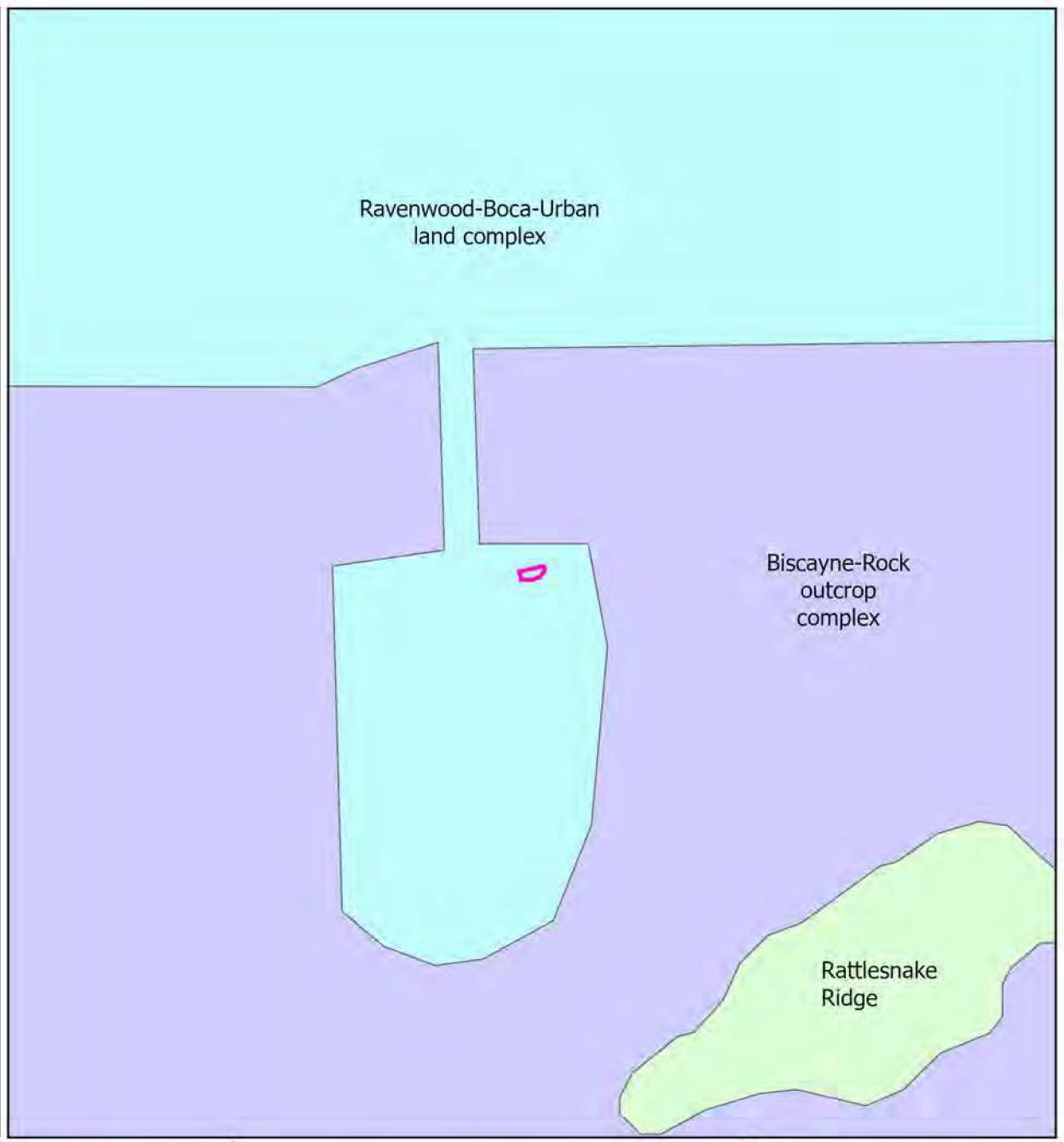
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMIJP03

0 200 Meters

N



US Army Corps
of Engineers ®
Jacksonville District

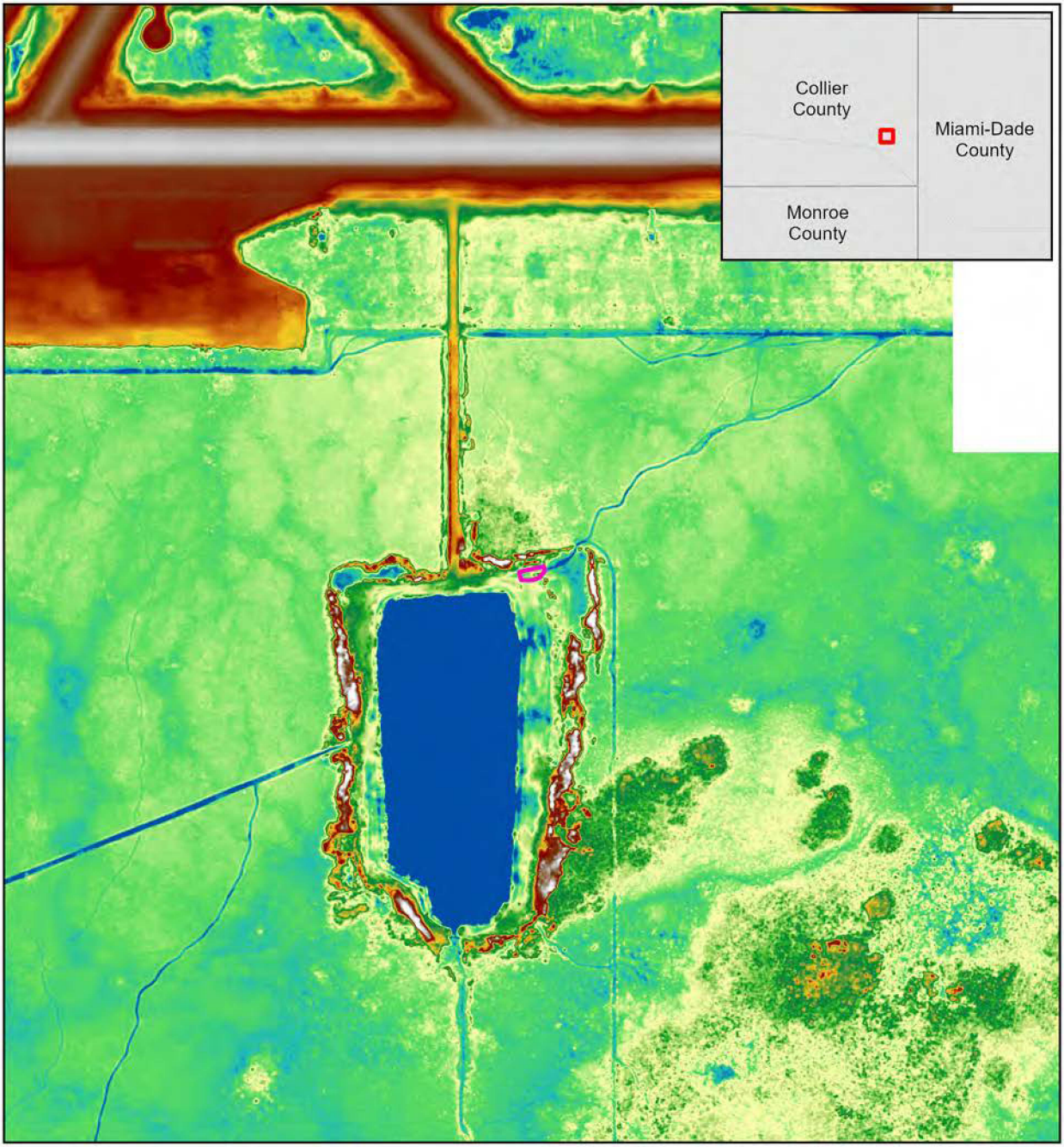
Western Everglades
Restoration Project
Stilling Wells

Collier County
Florida

TAMIJP03

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project Stilling Wells

Collier County
Florida

TAMIJP03
Elevation (FT NVGD)
2.2
4
0
200
Meters
N

US Army Corps of Engineers ®
Jacksonville District

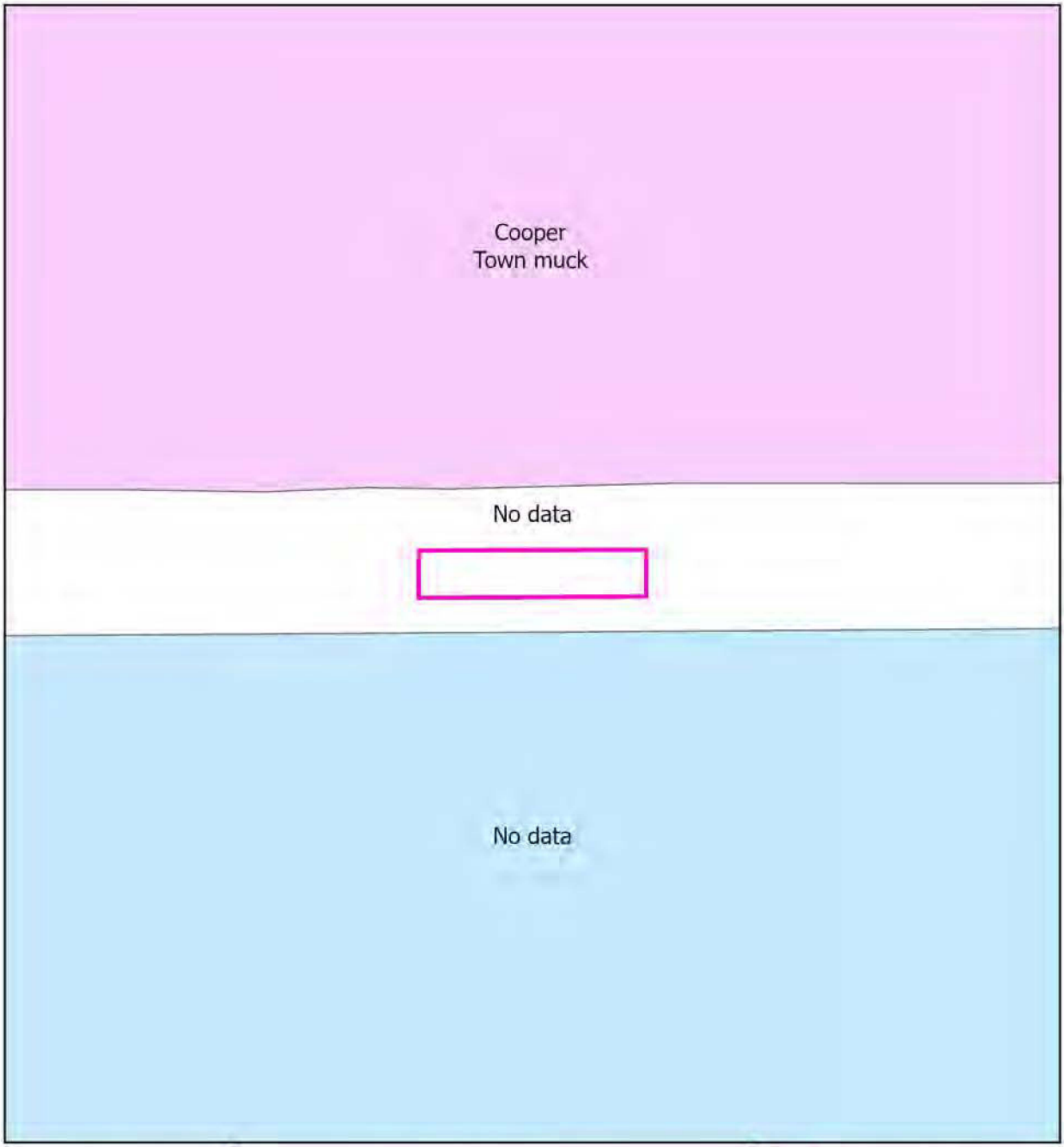
Western Everglades Restoration Project
Staging Area

Miami-Dade County
Florida

Staging Area

0 200 Meters

N



US Army Corps of Engineers
Jacksonville District

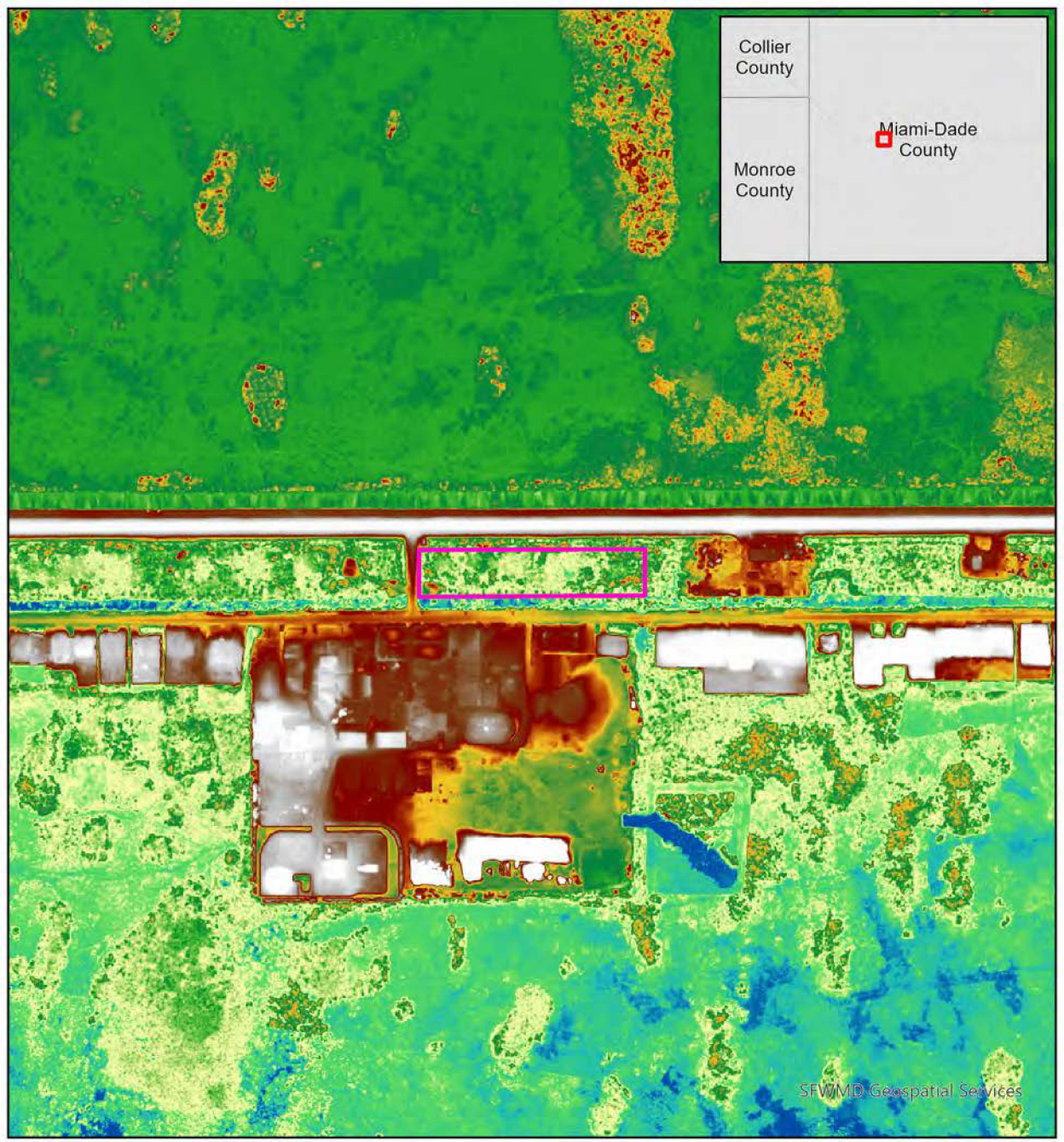
Western Everglades
Restoration Project
Staging Area

Miami-Dade County
Florida

Staging Area

0 200
Meters

N



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project Staging Area

Miami-Dade County
Florida

Staging Area

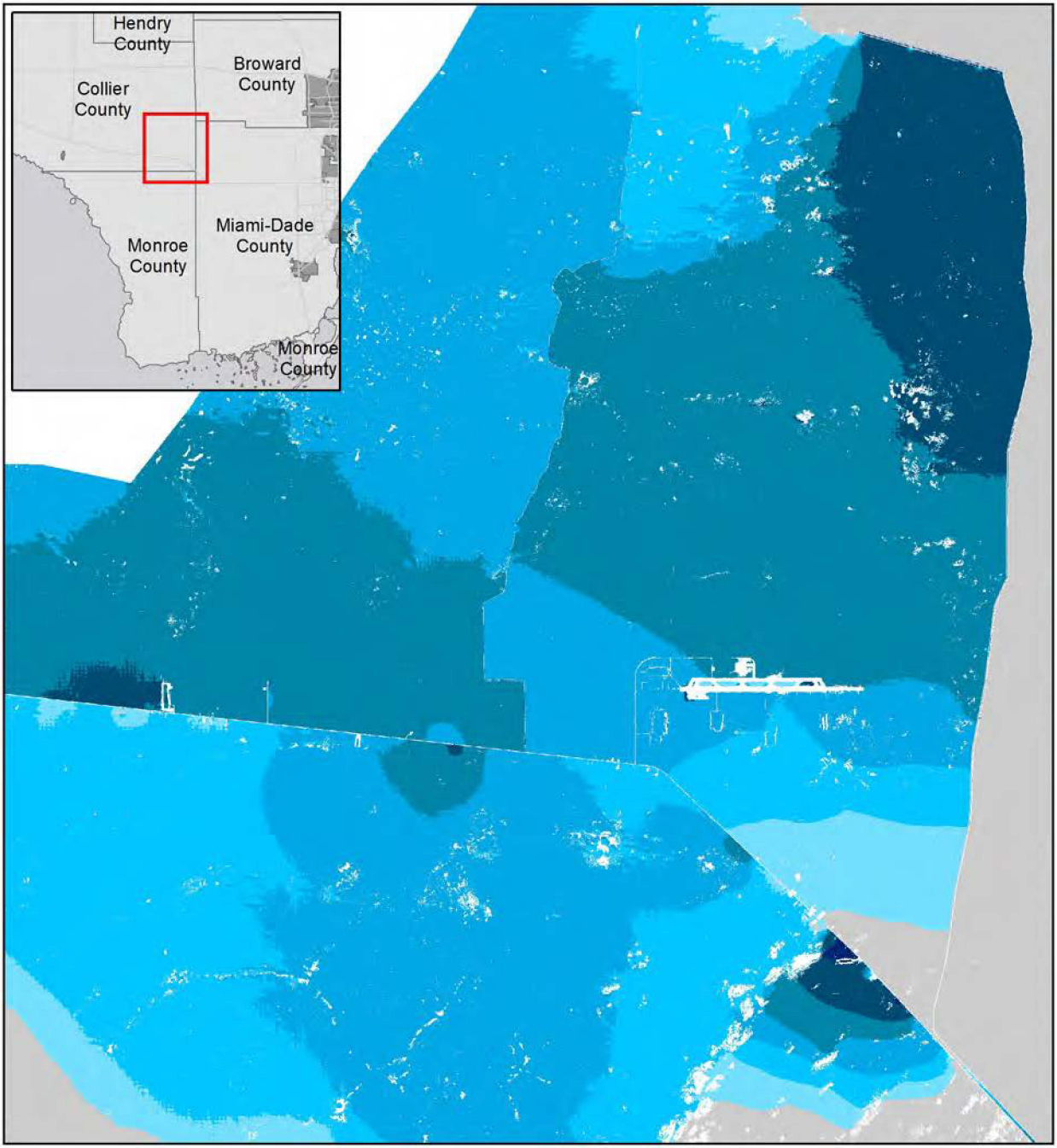
Elevation (FT NVGD)

7.5 — 14.5

0 — 200 Meters

N

Enclosure B
Maps of Modeling Data and Resources



US Army Corps of Engineers ®
Jacksonville District

Western Everglades Restoration Project
HEC-RAS Modeling
Difference in Maximum Depths

Collier, Miami-Dade, and
Monroe Counties, Florida

Change in Inches

- >3"
- 2"-3"
- 1.5"-2"
- 1"-1.5"
- 0.5"-1"
- 0-0.5"
- Lower

0 3 Miles

N