35	**AGENDA ITEM** **ST. JOHNS COUNTY BOARD OF COUNTY COMMISSIONERS**
	Deadline for Submission - Wednesday 9 a.m. – Thirteen Days Prior to BCC Meeting

7/21/2026

BCC MEETING DATE

TO: **Joy Andrews, County Administrator** **DATE:** **June 25, 2026**

FROM: **Joseph Giammanco, Emergency Management Director** **PHONE:** **904 295-3705**

SUBJECT OR TITLE: **A resolution approving a grant request to FDEP for the Ponte Vedra-South Ponte Vedra Beach Coastal Risk Storm Management Project.**

AGENDA TYPE: **Consent Agenda, Grant, Resolution**

BACKGROUND INFORMATION:

The requested funds for FY27-28 will support the Construction phase of the project. The Florida Department of Environmental Protection has begun a new Beaches and Coastal Systems grant cycle, and the County is seeking funding from that program to cover a portion of the Construction expenses for the USACE Ponte Vedra - South Ponte Vedra Beach Coastal Storm Risk Management Project. Approval of submission of the application does not obligate the County to the construction of the project. This would allow the County to leverage grant funding if construction occurs.

1. IS FUNDING REQUIRED? No **2. IF YES, INDICATE IF BUDGETED.** No

IF FUNDING IS REQUIRED, MANDATORY OMB REVIEW IS REQUIRED:

INDICATE FUNDING SOURCE:

SUGGESTED MOTION/RECOMMENDATION/ACTION:

Motion to adopt Resolution 2026-_____, authorizing the submission of a suggested long-range budget plan to the Florida Department of Environmental Protection (FDEP) in connection with the Ponte Vedra-South Ponte Vedra Beach Coastal Risk Storm Management Project, authorizing the County Administrator, or designee, to execute any necessary agreements with FDEP concerning the Ponte Vedra-South Ponte Vedra Beach Coastal Risk Storm Management Project.

For Administration Use Only:
Legal: Lex Taylor 7/9/2026 **OMB: WS 7/13/2026** **Admin: JDD 7/13/2026**

RESOLUTION NO. 2026-_____

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, APPROVING THE TERMS AND AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO SUBMIT A BUDGET PLAN TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF COASTAL RESILIENCE AND COASTAL PROTECTION, AS REQUIRED TO SUPPORT A LOCAL GOVERNMENT FUNDING REQUEST TO SUPPORT THE USACE COASTAL STORM RISK MANAGEMENT PROJECT, IN PONTE VEDRA - SOUTH PONTE VEDRA BEACH, ST JOHNS COUNTY.

WHEREAS, St. Johns County is currently working with the U.S. Army Corps of Engineers (USACE) and the Florida Department of Environmental Protection (FDEP) to complete the Pre-Construction Engineering and Design (PED) phase for a U.S. Army Corps of Engineers Coastal Storm Risk Management Project ("Project") in Ponte Vedra - South Ponte Vedra Beach; and,

WHEREAS, St. Johns County is the local sponsor for this project, and has the ability to provide the full local cost share from either the Category V Tourist Development Tax Budget, General Fund, and/or an MSTU; and

WHEREAS, the FDEP has begun a new grant cycle, and St. Johns County has submitted an annual Local Government Funding Request (LGFR) to the Florida Department of Environmental Protection, Office of Coastal Resilience and Coastal Protection for the State share of the Project's Construction cost; and,

WHEREAS, the LGFR application requires a Resolution from the County to affirm the Long Range Budget Plan for the Project; and,

WHEREAS, the FDEP requires an annual contract for its local share, contingent upon annual appropriations by the legislature.

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AS FOLLOWS:

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as findings of fact.

Section 2. A suggested Budget Plan for funding the State's portion of the Project shall be filed with the Florida Department of Environmental Protection, Office of Coastal Resilience and Coastal Protection (the "Department").

Section 3. The County Administrator, or designee, is hereby authorized to submit a proposed Budget Plan to the Department substantially in the form attached and to execute any necessary agreements concerning the beach projects with the Department, upon a finding of legal sufficiency by the Office of the County Attorney.

Section 4. The County Administrator's, or designee's, submission of any budget plan is subject to, and contingent upon, an annual budget appropriation by the Board of County

Commissioners.

Section 5. To the extent that there are typographical and/or administrative errors and/or omissions that do not change the tone, tenor, or content of this Resolution, then this Resolution may be revised without subsequent approval of the Board of County Commissioners.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, State of Florida, this_____day of _____ 2026

BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

By: _____

Clay Murphy, Chair

ATTEST: Brandon J. Patty
Clerk of the Circuit Court & Comptroller

By: _____

Deputy Clerk

Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2027-2028
Beach Project Application

PART I: APPLICANT INFORMATION

Local Sponsor: St. Johns County

Primary Contact Name: Stephen Hammond Title: Deputy Director

Telephone Number: 904-209-0272 Email Address: shammond@sjcfl.us

Mailing Address Line 1: 500 San Sebastian View

Mailing Address Line 2:

City: St. Augustine Zip Code: 32084 Federal ID # (FEID): 596000825

Additional Contact Information

PART II: CERTIFICATION

I hereby certify that all information provided with this application is true and complete to the best of my knowledge.

Signature of Local Sponsor

Electronic or scanned signatures accepted.

Printed Name Date

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PART III: EVALUATION CRITERIA

1. Project Name: (*as listed in the Strategic Beach Management Plan*)

Ponte Vedra - South Ponte Vedra CSRM

2. Project Description: Include county, location with reference to DEP range monuments, brief project history, and description of proposed activities.

USACE has completed the North Ponte Vedra Beach Feasibility Study and executed the Chiefs Report as of April 2024, and St. Johns County is waiting to sign the Design Partnership Agreement to begin the Design and Permitting phase for the project that will extend from R-78 through R-103.5. The Recommended Plan includes a 50-year project with a 20-ft dune width extension at existing dune crest elevation of 15-25 ft NAVD88, and a 20-ft berm width at elevation of 13 ft NAVD88. Renourishment is expected every 10 years. St. Johns County is actively working on developing additional public access throughout the project area for additional cost share at a state and federal level.

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3. Use of Program Requested Funds:

• Provide a brief description of tasks to be completed (or reimbursed) for each requested phase (Feasibility, Design and Permitting, Construction, Monitoring, or USACE Multiphase.

• Indicate which tasks are cost reimbursement from previous fiscal years.

• Include the year and type of post-construction monitoring.

Funds requested for FY27/28 will support the Construction phase of the project

Are the requested funds additional funding for, or a continuation of project activities that already exist within an active BMFA Grant? If so, please explain:

Additional funding for 26SJ1

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4. Map Requirements

• Provide as attachment(s) required pursuant to Chapter 62B-36.005(1)(a). The map(s) of the project area must be formatted at a minimum of 1" = 200' scale and include a compass rose and legend.

Map elements must include:

1. Project boundary: DEP reference monuments and shoreline designated as critically eroded
2. Eligibility: Indicate lengths of eligible shoreline based on criteria outlined in Chapter 62B-36.007, F.A.C.

   a. Beach access locations: indicate primary or secondary access, and include the shoreline length, number and location of auto parking spaces, mass transit stops, bike parking spaces, and public restroom facilities within 1/4 mile walking distance of each access.

   b. Public lodging establishments: include the length fronting the project shoreline, and include the length of street-side frontage for lodging within 1/4 mile walking distance of a secondary beach access location
3. Recreational benefits: Comprehensive list of current land use designations of properties fronting project shoreline
4. Value of upland property: Include one-quarter mile buffer and provide a comprehensive list of the values of properties (data from year 2025) that are enclosed or intersected by the buffer. The 2025 property value tax roll data and ArcGIS shapefiles can be obtained from the Department of Revenue website: https://floridarevenue.com/property/Pages/DataPortal_RequestAssessmentRollGISData.aspx. See Guidance Document for more information.

5. Eligibility Instructions

• Required for all beach projects per to Chapter 62B-36.007, F.A.C. *Provide as a separate attachment, if needed.*

• Complete the table on the following page to verify state cost share percentage of non-federal project costs.

• Information shall be supported by map attachments from #4 (***Map Requirements***).

Location/Access Name: Use the official name of the park or road that is associated with the public access.

DEP Reference Monument: Use the DEP monument that is closest to the main public access location.

Type of Access: Indicate Primary, Secondary, or (beachfront) Lodging per definitions in Chapter 62B-36 F.A.C.

Width of Access/Frontage: The length of the legal boundary (in feet) of the public access or lodging along the project shoreline.

Number of Eligible Units: Units must be within ¼ walking distance of the public access location. A unit is defined as one automobile parking space, one rental unit in a public lodging establishment (non-beachfront), one mass transit stop, or four bicycle parking spots.For non-beachfront public lodging establishment rental units, total eligibility utilized from that establishment may not exceed the streetside frontal width of the property.

Additional Width from Eligible Units: Total distance in feet added to width of access/frontage. Primary access points may not exceed ½ mile in each shore parallel direction. Secondary access points may not exceed ¼ mile in each shore parallel direction.

Total Eligible Shoreline: Sum of Width of Access column and Additional Width from Units Column. Eligible shorelines cannot overlap between access points.

Website Link for DBPR License: Provide the link to the Department of Business and Professional Regulation (DBPR) website for proof of licensure for any public lodging establishments used for eligibility or the Recreational Benefits ranking criteria.

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5. Eligibility: Verification of State Cost Share Percentage per Chapter 62B-36.007

Project boundary (R-monuments) R78-R103.5

Project Length 26,404 ft (ft)

Total restored project length of critically eroded area (as listed in SBMP)

Additional Comments on Project Range

Location / Access Name	DEP Reference Monument	Type of Access	Width of Access/ Frontage (ft)	Number of Eligible Units	Additional Width from Units (ft)	Total Eligible Shoreline (ft)	Website Link: DBPR License (Lodging Only)
Guana River State Park	R-83	Primary	1,650	100 parking spots	5,280	8,580	
South Ponte Vedra Park	R-95	Secondary	1,130	37 parking spots	1,953.60	3,903.6	

Total Eligible Shoreline (All) 12,483.6

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6. Schedule and Budget (*Provide as separate attachment, if* needed)

- **Cost Reimbursement:** Specify eligible costs incurred during the three previous fiscal years (FY24-25, FY25-26, and FY26-27)
  - Eligible costs will be added to the current request upon Department verification that request is not duplicative.
- **Current Costs:** Specify eligible costs for the current fiscal year (FY27-28) that are not in a current DEP agreement.
  - Post-construction monitoring may be requested in FY28-29 if construction phase requested in FY27-28.
- **Future Costs:** Project costs for FY28-29 through FY31-32.
  - Informs Department's Long Range Budget Plan, not included in current request. (Located on next page)

- Select phase: Feasibility, Design and Permitting, Construction, Monitoring, or USACE Multiphase.
  - Include the year and type of post-construction monitoring in the description.
- State cost share percentage applied to non-federal project costs.

Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
24-25						
24-25						
24-25						
24-25						
25-26						
25-26						
25-26						
25-26						
26-27						
26-27						
26-27						
26-27						
27-28	USACE Multiphase	Initial Construction	$ 24,290,096.00	$ 8,456,801.34	$ 35,833,904.00	$ 60,124,000.00
27-28						
27-28						
27-28						
28-29	Monitoring	Biological and Physical Monitoring		$ 47,200.00	$ 152,800.00	$ 200,000.00

Total State Share of Request $ 8,504,001.34

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6. Schedule and Budget (Long Range Budget Plan) (*Provide as separate attachment, if* needed)

- **Future Costs:** Project costs for FY28-29 through FY31-32.
  - Informs Department's Long Range Budget Plan, not included in current request.
- Select phase: Feasibility, Design and Permitting, Construction, Monitoring, or USACE Multiphase.
  - Include the year and type of post-construction monitoring in the description.
- State cost share percentage applied to non-federal project costs.

Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
28-29						
28-29						
28-29						
28-29						
29-30	Monitoring	Biological Monitoring		$ 23,600.00	$ 76,400.00	$ 100,000.00
29-30	Monitoring	Physical Monitoring		$ 11,800.00	$ 38,200.00	$ 50,000.00
29-30						
29-30						
30-31	Monitoring	Biological Monitoring		$ 29,500.00	$ 95,500.00	$ 125,000.00
30-31	Monitoring	Physical Monitoring		$ 17,700.00	$ 57,300.00	$ 75,000.00
30-31						
30-31						
31-32						
31-32						
31-32						
31-32						

Additional Comments for Schedule and Budget

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7. Tourism-Related Impacts

Criteria is calculated by the Department using 2025 data. For reference, tax data can be obtained from the Department of Revenue website: https://floridarevenue.com/DataPortal/Pages/TaxResearch.aspx See Guidance Document for more information.

Select if applicable:

- [x] Current requests includes construction and year one post-construction monitoring.
- [ ] Project is managed by two or more counties.

Additional Comments Tourism-Related Impacts

8. Federal Involvement

The documentation to verify authorization, federal cost share percentage, and status of funding award must be provided with the application materials for the award of points.

United States Army Corps of Engineers (USACE)

Project federally authorized by USACE? Yes Authorization Year: 2000 Expiration Year: N/A

Does this project have a signed USACE Chief's report or Civil Works Congressional authorization for the requested phase? Yes

USACE federal cost share percentage for this project (excluding FCCE): 40.4%

Is the current requested project receiving FCCE appropriation?

Federal Emergency Management Agency (FEMA) & Florida Division of Emergency Management (FDEM)

Has this project received appropriation from FEMA & FDEM for storm recovery? Yes

If yes, please list storm incident(s) and associated FEMA and FDEM appropriations and cost share percentages.

Additional Federal Involvement Comments

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9. Physical Monitoring Survey Data

The most-recent physical monitoring survey data is required to complete coastal engineering ranking criteria.

Verify the date (month/year) of the most recent survey data of the project area: August 2025

Verify submittal method of the required data:

- [x] Previously provided to JCP Compliance
- [ ] Submitted currently with application materials

Enter date (month/year) of the most recent completed beach nourishment project:

10. Storm Damage Reduction Benefits (*Criteria is calculated by the Department*)

What is the volume (cy) of advanced nourishment lost since the last sand placement event of a beach restoration or nourishment project as measured above the Mean High Water contour? Data should be consistent with the annual post-construction monitoring reports. N/A

For restoration projects, what is the historical erosion rate? N/A

11a. Cost Effectiveness (Cost/Volume/Mile/Year)

What is the proposed sand placement volume? approx. 2.2 Mcy initial volume

What is the nourishment interval (years)? 10 years

11b. Cost Effectiveness (Enhanced Longevity, Dune Addition, Innovative Tech, Regionalization)

Select all that apply for the current project funding request:

- [x] ***Enhanced longevity:*** Propose structural or design components that could extend the beach nourishment interval
- [x] ***Dune addition:*** Incorporate new/enhanced dune structures or new or existing dune restoration/revegetation projects
- [ ] ***Innovative technology:*** Propose innovative technologies designed to reduce project costs
- [x] ***Regionalization:*** Two or more local sponsors manage projects together or projects propose regional sediment management strategies to conserve sand resources or reduce project costs

* Criteria verified by Department. Project design analysis must be submitted for verification and award of points for Enhanced Longevity category. See LGFR Guidance Document for more information.

Additional Comments for Storm Damage Reduction Benefits & Cost Effectiveness

The USACE will be designing a double berm feature in front of the dune to increase the longevity of the designed dune for this project. Additionally, the 5.1 mile-long project project is part of the regionalized effort as it lies immediately south of the the Duval County SPP project and the 9 mile-long North Ponte Vedra project, and directly will tie into the South Ponte Vedra /Vilano Beach CSRM project.

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12. Previous State Commitment

Has the Department previously reviewed, approved, and cost-shared on a feasibility or design phase for this project? Yes

Has the current proposed project phase(s) received a partial state appropriation within 3 years of phase completion? No

(i.e., state legislative appropriation did not fully cover corresponding previous LGFR request)

Additional Comments Previous State Commitment: 26SJ1 is for PED

13. Accessible Beach Area

Criteria is calculated by the Department. *Optional*: provide additional information for consideration including a description of the landward and seaward edges of the accessible beach width.

Design not finalized yet

14. Recreational Benefits *(Provide additional documentation and DBPR website links as attachments, if needed)*

Provide the linear footage within the project boundaries zoned as:

1) Recreational or open space	1,012
2) Commercial use	1,649
3) to allow for public lodging (or equivalent)	
Total frontage for recreational benefits (sum):	2,661

Project Length: 26,404ft

Rec. Benefits %: 10.08%

Additional Comments Rec. Benefits

15. Mitigation of Inlet Effects

Criteria is calculated by the Department. *Optional*: provide additional information for consideration.

A portion of the project -- from R84 to R103.5 -- lies within the region of influence of St. Augustine Inlet.

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16. Successive Unfunded Requests

Is the current proposed project phase(s) a successive, unfunded request?
If so, how many years of successive request(s) is the current application?

Does the successive request add the construction phase to a previous unfunded design phase request?

17. Environmental Habitat Enhancement

Is the project within a designated critical habitat area for threatened or endangered species? Yes

What percentage of the project contains shoreline armoring? 55.9%

Does the project exceed best management practices and or management strategies to protect resources or benefit critical habitat area? If so, please explain and provide any supporting documentation.

The county has a stringent, county wide beach lighting code for sea turtle protection that is enforced during review of local building permits. The county also does beach lighting surveys county wide during every sea turtle nesting season.

Please see Attachment 6, "SJC LDC Art IV" from the St. Johns County Land Development Code – refer to Sec 4.01.09 Lighting Management for Protection of Marine Turtles (pages IV-26 through IV-30)

Note: project must meet armoring and vulnerable thresholds that receive base award of points to be eligible to receive additional points for best management practices. See Guidance Document for more information.

18. Readiness to Construct

Permits:

Active State Permit? No Permit Number: Expiration Date:

Active Federal Permit? No Permit Number: Expiration Date:

Easements: Have all necessary easements been acquired for upcoming or proposed construction phase? No

Resolution: Has the necessary local funding been secured for the proposed project?
If so, provide a copy of the draft Resolution. The signed Resolution is due by October 2, 2026. Yes

Erosion Control Line : Is an Erosion Control Line established along the project length? Yes

Additional Comments for Readiness to Construct:

SPV Permits:
-0340616-003-JC
-SAJ-2018-00349 (SP-TMM)

The USACE will likely mirror these permits for the PV-SPV CSRM

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Provide additional information and comments below, or provide supporting detail for attachments.

Attachment 1 - Map
Attachment 2 - Recreational Benefits and Value of Upland Property
Attachment 4 - Eligibility Table
Attachment 5 - Chiefs Report
Attachment 6 - SJC Land Development Code, Article IV
Attachment 7 - FCSA N Ponte Vedra_Fully Executed FCSA
Attachment 8 - Physical Monitoring Survey

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Attachments Checklist (Beach Projects)

☐ **Resolution:**
- Signed resolution from local sponsor governing board due October 2, 2026.
- Must include support for the project, ability to serve as local sponsor, ability to provide local funding.
- Draft resolutions to be provided to receive award of points within "Readiness to Proceed".

☐ **Maps**
- Full detail located on Page #4
- Includes project boundary information, public access information, recreational benefits (zoning) information, and 1/4 mile buffer for upland property values (may be provided as separate maps)

☐ **Parcel Data (Upland Property Values)**
- List of upland property values enclosed or intersected by 1/4 mile buffer from project

☐ **Physical Monitoring Survey Data**
- Most recent survey data required for coastal engineering ranking assessments.
- Not required to submit again if previously provided to JCP Compliance
  - Contact Beaches_Funding@FloridaDEP.gov & JCPCompliance@FloridaDEP.gov to verify

☐ **Federal Cost-Share Documentation**
- USACE or FEMA documentation required to verify federal appropriations for award of points

☐ **Project Design Analysis**
- *If seeking points for Enhanced Longevity within Cost Effectiveness Criteria*

☐ ***Optional:*** Separate Attachments for *#5 Eligibility*, *#6 Schedule and Budget*

☐ ***Optional:*** Supporting documentation you wish to provide for *#13 Accessible Beach Area*, *#15 Mitigation of Inlet Effects*, ***or*** *#17 Environmental Habitat Enhancement*

Additional Resources

Strategic Beach Management Plans and Inlet Management Plans
https://floridadep.gov/rcp/beaches-inlets-ports/content/strategic-planning-and-coordination

Critically Eroded Beaches Report
https://floridadep.gov/rcp/coastal-engineering-geology/documents/critically-eroded-beaches-florida

LGFR Guidance Document
https://floridadep.gov/rcp/beaches-funding-program/documents/fy-20252026-guidance-document

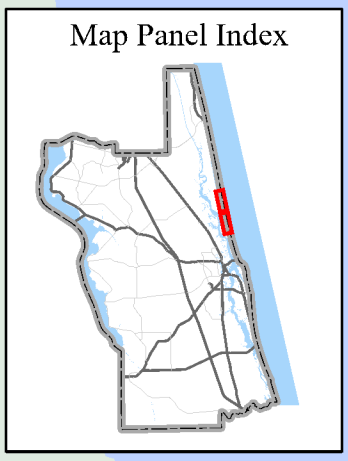
Department of Revenue Upland Property Value Information
https://floridarevenue.com/property/Pages/DataPortal_RequestAssessmentRollGISData.aspx

Department of Revenue Tax Research
https://floridarevenue.com/DataPortal/Pages/TaxResearch.aspx

Department of Business and Professional Regulation (DBPR)
https://www2.myfloridalicense.com/

USFWS Critical Habitat Area
https://ecos.fws.gov/ecp/report/table/critical-habitat.html

Attachment 1
Map



R-078
R-079
R-080
R-081
R-082
R-083
R-084
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R-086
R-087
R-088
R-089
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R-101
R-102
R-103

S Ponte Vedra Blvd

Atlantic Ocean

Guana Lake

Guana River

Guana River Rd

Guana River State Park, PA, 6,930 feet, PS - 100, PR - Yes

South Ponte Vedra Park, SA, 3,083.6 feet, PS - 37, PR - Yes

Yellow Bill Ln

Beachside Dr

Hidden Dune Ct

Turtle Bay Ln

Sand Isles Cir

Turtle Dunes Ct

Atlantic Breeze Way

Tides Edge Pl

S Serenata Dr

Point Labels Legend

PA - Primary Access
SA - Secondary Access
PS - Parking Spaces
BR - Bike Racks
PR - Public Restrooms

ST. JOHNS COUNTY EST. 1821 FLORIDA AT FIRST SIGHT

- Beach Access / Public Lodging Locations
- Range Monuments
- ¼ Mile Buffer for the Property Value Calculations
- Water
- Saltwater Marsh
- Park Boundary
- Municipal Boundary

South Ponte Vedra CSRM Project, St. Johns County R78 - R103.5

0 500 1,000 1,500
Feet

DISCLAIMER:

This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. The St. Johns County GIS Division disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map Prepared: 7/3/2025 j20711

SJC GIS

Attachment 2
Just Value and Zoning

STRAP	LANDUSE
1421000000	Res,Recreational
1421100001	Res,Recreational
1421200010	Res,Recreational
1421200020	Res,Recreational
1421200030	Res,Recreational
1421200040	Res,Recreational
1421450011	Res,Recreational
1422150010	Res,Recreational
1422150020	Res,Recreational
1422150030	Res,Recreational
1422150040	Res,Recreational
1422150050	Res,Recreational
1422150060	Res,Recreational
1422150070	Res,Recreational
1422150080	Res,Recreational
1422150090	Res,Recreational
1422150100	Res,Recreational
1422150110	Res,Recreational
1422150120	Res,Recreational
1422150130	Res,Recreational
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1422150220	Res,Recreational
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1422150250	Res,Recreational
1422150260	Res,Recreational
1422150270	Res,Recreational
1422150290	Res,Recreational
1422150300	Res,Recreational
1422150310	Res,Recreational
1422150320	Res,Recreational
1422150330	Res,Recreational
1422150340	Res,Recreational
1422150350	Res,Recreational
1422150360	Res,Recreational
1422150370	Res,Recreational

1422150380	Res,Recreational
1422150390	Res,Recreational
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1422300160	Res,Recreational
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1422301012	Res
1422301013	Res
1422301014	Res
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1422301026	Res
1422301027	Res
1422301028	Res
1422310001	Res,Recreational
1428100001	Res,Recreational
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Attachment 4
Eligibility Table

Attachment 4 - Eligibility Table

Location/Name	R-Monument	Type of Access	Width of Access/ Frontage	Total Public Units or Parking Spaces	Additional Width from Eligibility	Eligible Shoreline (feet)	DBPR License
Guana River State Park	R-83	Primary	1,650	100	5,280	8,580	
South Ponte Vedra Park	R-95	Secondary	1,130	37	1,953.60	3,083.60	
					Total Eligible Shoreline Length:	12,483.60	

Attachment 5
Chiefs Report

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
2600 ARMY PENTAGON
WASHINGTON, DC 20310-2600

DAEN 18 April 2024

SUBJECT: St. Johns County, Florida, Ponte Vedra Beach Coastal Storm Risk Management

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on coastal storm risk management (CSRM) recommendations for St. Johns County, Florida, Ponte Vedra Beach. It is accompanied by the report of the Jacksonville District and South Atlantic Division engineers. This study is an interim response to a resolution adopted on June 21, 2000, by the Committee on Transportation and Infrastructure of the United States House of Representatives (Docket 2646), in accordance with Section 110 of the River and Harbor Act of 1962, Public Law 87-874, which authorizes the Secretary of the Army, acting through the Chief of Engineers, to survey the shores of St. Johns County, Florida, with particular reference to the advisability of providing beach erosion control works, as may be necessary in the interest of hurricane protection, storm damage reduction, beach erosion control, and other related purposes. Preconstruction engineering and design (PED), if funded, will continue under current authorities.

2. The reporting officers recommend authorizing a plan of risk management system of features that will reduce the risk of damages caused by coastal storms to structures and infrastructure in South Ponte Vedra Beach, St. Johns County. The Recommended Plan is the National Economic Development (NED) Plan. The Recommended Plan includes the following system of natural and nature-based features:

a. Approximately 5.1 miles of beach and dune nourishment in the South Ponte Vedra segment (R-78 to R-103.5);

b. An approximately 20-foot dune extension at the existing dune crest elevation of 15 – 25 feet North American Vertical Datum of 1988 (NAVD88);

c. An approximately 20-foot equilibrated berm width at an elevation of 13 feet NAVD88 (that is approximately 4 feet higher than the natural berm elevation of 9 feet NAVD88), which could be increased over time to correspond with observed sea level change and/or mean low water rates;

d. A taper into the existing beach at the north end, over a distance that is determined during PED; and

e. A taper into the existing beach at the south end, over a distance that is determined during PED, if nourishment is not conducted concurrently with nourishment of the Vilano Beach Reach of the St. Johns County, Florida CSRM project.

3. Approximately 2,145,000 cubic yards of sand will be placed for initial construction, and approximately 662,000 cubic yards of sand will be used for each periodic renourishment. A 10-year nourishment interval is expected, and the Northern Offshore Borrow Area site N-2 will be used, with sites N-1 and N-3 available for use if needed.

4. St. Johns County, Florida is the non-federal cost-sharing sponsor for all features of the project. As a shared responsibility, the Recommended Plan is inclusive of the non-federal sponsor's additional floodplain management responsibilities and emergency response actions in conjunction with state and Federal Emergency Management Agency related programs to mitigate the plan's residual risk, including potential life loss and damages to critical infrastructure. Based on October 2023 price levels, the estimated total project first cost is $138,320,000, which includes $60,124,000 for initial construction and a total cost of $78,196,000 for an estimated four (4) future periodic nourishments over 50 years. The total project first cost includes the value of lands, easements, rights-of-way, relocations (LERR), and dredged material placement area improvements estimated to be $12,235,000. The current project plan for LERR requires (a) the standard Perpetual Beach Storm Damage Reduction Easements for construction and for operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) to support a public beach, a dune system, and other erosion control and storm damage reduction measures; (b) the standard Temporary Work Area Easements for staging and access; and (c) the standard Road Easements for staging and access. The current plan requires the non-federal sponsor to acquire the standard Perpetual Beach Storm Damage Reduction Easement for approximately 251 privately owned parcels. The current project plan proposes acquisition of a non-standard estate from the State of Florida for use of submerged lands. The terms and approval for use of a lesser and non-standard estate will require U.S. Army Corps of Engineers (USACE) Headquarters approval prior to acquisition. Cost sharing is applied in accordance with the provisions of Section 103 of the Water Resources Development Act of 1986 (33 U.S.C. § 2213), as follows:

a. Based on the non-federal sponsor's public access commitment in the project area expected at the time of construction, the federal share of the project first cost for initial construction is estimated to be $24,591,000 and the non-federal share, which includes the cost of LERR and dredged material placement area improvements, is estimated to be $35,533,000, which equates to 41 percent federal and 59 percent non-federal.

b. Based on the non-federal sponsor's public access commitment in the project area expected at the time of construction, the federal share of the project first cost for periodic nourishments is estimated to be $24,632,000 and the non-federal share is estimated to be $53,564,000, which equates to 32 percent federal and 68 percent non-federal.

c. The additional annual cost of OMRR&R for the Recommended Plan is estimated to be $60,000. OMRR&R activities include long-term topographic and bathymetric surveys; annual surveillance of the project and following storm events to determine losses of material; revegetating the dune, as needed, between nourishment activities; scarp repair; and beach tilling. The non-federal sponsor will be responsible for 100 percent of the cost of project OMRR&R.

5. Based on a 2.75 percent discount rate and a 50-year period of analysis, the equivalent average annual benefits, including incidental recreation benefits, are estimated to be $4,078,000 and equivalent average annual costs are estimated to be $3,767,000, with equivalent average annual net benefits of $233,000 and a total estimated benefit-to-cost ratio of 1.06 to 1. All project costs are allocated to the authorized purpose of CSRM.

6. A qualitative assessment was completed documenting the sea turtle nesting behavior in the study area. Environmental Quality benefits, while not quantified, were claimed for preservation of the existing turtle nesting habitat along approximately 5.1 miles of shoreline with a beach nourishment project in place. In addition to the incidental recreation benefits of $359,000 that were calculated for the NED Plan, a qualitative assessment indicates that recreation in the study area will be maintained or increase with a CSRM project in place. A qualitative assessment of life safety with a CSRM project in place indicates a reduced risk to life safety. Beach-fx modeling indicates that with a project in place, there is a reduced risk of inundation to State Road A1A due to storm surge, and therefore a reduced risk to life safety.

7. The study performed a sensitivity analysis to evaluate the effects that different rates of sea level change could have on the Recommended Plan. The NED Plan was formulated using the intermediate rate of sea level change (SLC) which is 1.0 foot over the 50-year period of analysis. Beach-fx was used to model the performance of the NED Plan for low, intermediate, and high rates of sea level rise. The project performance for the three scenarios is relatively constant, with up to 96 percent effectiveness in risk reduction. The proposed project would greatly reduce, but not eliminate, future coastal storm risk and damages resulting from coastal storms. It is possible that SLC could occur at various rates within the range of the low to high rates of SLC. Overall, these results suggest that the NED Plan is both effective and robust in all three simulated sea level rise scenarios. Adaptive management, such as adjusting the timing of periodic nourishments and project volume requirements based on monitoring reports, will compensate for any variations in sea level rise from what was modeled.

8. All compliance with required applicable environmental laws and regulations for this phase of the project has been completed.

9. In accordance with USACE policy on the review of decision documents, all technical, engineering, and scientific work underwent an open, dynamic, and rigorous review process. The comprehensive review process included District Quality Control Review, Agency Technical Review, and Headquarters Policy and Legal Compliance review to confirm the planning analyses, alternative design and safety, and the quality of decisions. Washington-level review indicates that the plan recommended by the reporting officers complies with all essential elements of the U.S. Water Resources Council's Economic and Environmental Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies, as well as other administrative and legislative policies and guidelines. The views of interested parties, including federal, state, and local agencies, were considered and all comments from public reviews have been addressed and incorporated into the final report documents where appropriate.

10. USACE decision documents recognize cost risk and uncertainty surrounding implementation. All cost estimates will carry a degree of uncertainty. The estimated total project first cost for the Recommended Plan at the 80 percent confidence level is estimated to be at $138,320,000. This project carries a degree of uncertainty such that if the main drivers described below are realized, the first cost for the Recommended Plan could increase to approximately $161,196,000. The Recommended Plan has various construction and non-construction components. These components range from 30 to 100 percent in project definition. The overall recommended plan is at 40 percent design. Based on the recommended project design of the construction components and scope definition of the non-construction components, the total project cost is designated as a Class 3

estimate. The total project first cost includes a contingency value of $34,550,000, which is approximately 34 percent of the estimated base project cost of $103,770,000. The cost contingencies are intended to cover cost and schedule increases due to the identified project risks and their probability of occurrence. Changes to assumptions or the basis of design can result in additional risks not currently identified. For the Recommended Plan project first costs, the currently known major uncertainty drivers are: (1) erosion rates and quantity estimates; (2) variation in major material costs and bid assumptions; (3) changes to assumptions on productivity, construction sequencing due to funding allocations and future market conditions that can affect overall project cost; and (4) ability of the non-federal sponsor to provide their share of funds and obtain all required real estate interests in a timely fashion as reflected in the project schedule. As the project moves into the next phases, USACE will focus risk management and mitigation on the primary cost and other significant risk drivers to the extent within USACE control. However, there still exists the potential for other unanticipated and uncontrollable changes in environmental or economic conditions that could further increase the total project first cost beyond the current estimate and/or necessitate changes in the project's design.

11. In full consideration of the risks as documented in the preceding paragraphs in this report, I concur in the findings, conclusions, and recommendation of the reporting officers. Accordingly, I recommend that CSRM improvements for Ponte Vedra Beach, Florida, be authorized in accordance with the reporting officers' Recommended Plan at an estimated cost of $60,124,000 for initial construction and $78,196,000 for future periodic nourishments, with such modifications as in the discretion of the Chief of Engineers may be advisable. Federal implementation of the project for CSRM includes, but is not limited to, the following items of local cooperation to be undertaken by the non-federal sponsor in accordance with applicable federal laws, regulations, and policies:

a. Provide 35 percent of construction costs for initial construction of the project and 50 percent of construction costs for periodic nourishment allocated by the Federal government to CSRM; 100 percent of construction costs for initial construction and periodic nourishment allocated by the Federal government to beach improvements with exclusively private benefits; 100 percent of construction costs for initial construction and periodic nourishment allocated by the Federal government to improvements and other work located within the Coastal Barrier Resources System that the Federal government has determined are ineligible for Federal financial participation; and 100 percent of construction costs for initial construction and periodic nourishment allocated by the Federal government to the prevention of losses of undeveloped private lands, as further specified below:

1. Provide, during design, 35 percent of design costs in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

2. Provide all lands, easements, rights-of-way, and placement areas and perform all relocations determined by the Federal government to be required for the project;

3. Provide, during construction, any additional contribution necessary to make its total contribution equal to at least 35 percent of construction costs for initial construction and 50 percent of construction costs for periodic nourishment;

b. Prevent obstructions or encroachments on the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) that might reduce the level of coastal

storm risk reduction the project affords, hinder operation and maintenance of the project, or interfere with the project's proper function;

c. Inform affected interests, at least yearly, of the extent of risk reduction afforded by the project; participate in and comply with applicable Federal floodplain management and flood insurance programs; prepare a floodplain management plan for the project to be implemented not later than one year after completion of construction of the project; and publicize floodplain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in adopting regulations, or taking other actions, to prevent unwise future development and to ensure compatibility with the project;

d. Operate, maintain, repair, rehabilitate, and replace the project or functional portion thereof at no cost to the Federal government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal laws and regulations and any specific directions prescribed by the Federal government;

e. At least annually and after storm events, at no cost to the Federal government, perform surveillance of the project to determine losses of material and provide results of such surveillance to the Federal government;

f. For shores, other than Federal shores, protected using Federal funds, ensure the public use of, and access to, such shores by all on equal terms in a manner compatible with the authorized purpose of the project;

g. Provide and maintain necessary access roads, parking areas, and other associated public use facilities, open and available to all on equal terms;

h. Give the Federal government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-federal sponsor owns or controls for access to the project to inspect the project, and, if necessary, to undertake work necessary to the proper functioning of the project for its authorized purpose;

i. Hold and save the Federal government free from all damages arising from design, construction, operation, maintenance, repair, rehabilitation, and replacement of the project, except for damages due to the fault or negligence of the Federal government or its contractors;

j. Perform, or ensure performance of, any investigations for hazardous, toxic, and radioactive wastes (HTRW) that are determined necessary to identify the existence and extent of any HTRW regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, and any other applicable law, that may exist in, on, or under real property interests that the Federal government determines to be necessary for construction, operation and maintenance of the project;

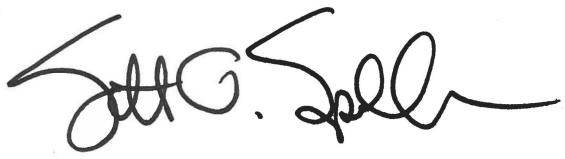
k. Agree, as between the Federal government and the non-federal sponsor, to be solely responsible for the performance and costs of cleanup and response of any HTRW regulated under applicable law that are located in, on, or under real property interests required for construction, operation, and maintenance of the project, including the costs of any studies and investigations

necessary to determine an appropriate response to the contamination, without reimbursement or credit by the Federal government;

l. Agree, as between the Federal government and the non-federal sponsor, that the non-federal sponsor shall be considered the owner and operator of the project for the purpose of CERCLA liability or other applicable law, and to the maximum extent practicable shall carry out its responsibilities in a manner that will not cause HTRW liability to arise under applicable law; and

m. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended, (42 U.S.C. 4630 and 4655) and the Uniform Regulations contained in 49 C.F.R Part 24, in acquiring real property interests necessary for construction, operation, and maintenance of the project including those necessary for relocations, and placement area improvements; and inform all affected persons of applicable benefits, policies, and procedures in connection with said act.

12. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program or the perspective of higher review levels within the Executive Branch. Consequently, the recommendation may be modified before it is transmitted to the Congress as a proposal for authorization and implementation funding. However, prior to transmittal to Congress, the non-federal sponsor, interested federal agencies, and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.



SCOTT A. SPELLMON
Lieutenant General, USA
Chief of Engineers

Attachment 6
St. Johns County Land Development Code
Article IV

ARTICLE IV
NATURAL RESOURCES

PART 4.00.00 GENERALLY

The decision by the Owner as to whether and how to develop a Parcel of land, and the decision by St. Johns County to approve or disapprove proposed Development, may depend on the impact that the proposed Development will have on natural resources. This Article establishes standards and procedures by which these impacts are determined, and by which St. Johns County will approve or disapprove the Development in light of such impacts.

PART 4.01.00 NATURAL RESOURCES

Sec. 4.01.01 Generally

A. Purpose

The purpose of the Natural Resources Regulations is to set forth regulations regarding Land Alteration, the protection of soil and water, the protection of Trees and other vegetation, and the protection of Environmentally Sensitive Areas, in order to maintain the quality of life in St. Johns County and protect the health, safety, welfare and general well-being of the citizens of St. Johns County.

B. Intent

It is intended that the implementation of these regulations accomplish the following objectives:

1. Promote soil Conservation by minimizing and controlling alterations of the natural terrain, and thereby reduce sedimentation and air and surface water pollution resulting from soil erosion.

2. Maximize the retention of Trees, a valuable natural resource of the community.

3. Create an aesthetically pleasing and functional living environment to protect and enhance property values by conserving Trees and other vegetation.

4. Protect Environmentally Sensitive Areas from activities which would alter their ecological integrity, balance or character.

5. Ensure that the activities associated with Excavating and the resulting excavation itself does not adversely impact the quantity or quality of surface water or groundwater.

6. Ensure that the hauling of Excavated material does not adversely impact public roads or bridges or public health, safety or welfare.

7. Ensure compliance with Chapter 163, F.S., and the St. Johns County Comprehensive Plan.

Sec. 4.01.02 Natural Resources Permitting

A. When Required

Except as specifically exempted herein, it shall be unlawful for any Person, firm or corporation, either individually or through an agent, to cause Land Alteration within the unincorporated areas of St. Johns County without having obtained, a Development Permit or Development Order from the County Administrator, or to allow a condition which is the result of unauthorized Land Alteration activity to remain unremedied.

B. Effect of Permit

Issuance of a Development Permit by the County Administrator, or exemption from the requirement thereof, does not abrogate any legal requirement to comply with the regulations of any other governmental agency, local, state or federal, which may have jurisdiction over the proposed activity upon the land.

C. Exceptions to Requirement of Permit

No Permit under this Section is required for:

1. The Removal of dead or naturally fallen vegetation, except within an Environmentally Sensitive Area.

2. The limited Removal of Understory, (including non Protected Trees) vegetation necessary to obtain clear visibility between two (2) points for the purpose of performing field survey work, provided the Removal will not create a cleared swath wider than ten (10) feet.

3. The Removal of vegetation that is endangering public health, safety or welfare, and, after consultation with the County Administrator, it is determined by the County Administrator that there is no other remedy provided in this Code.

4. The Removal of Exempted Trees, as defined in this Code.

5. The Removal of vegetation planted on the premises of a plant nursery or tree farm and grown for the purpose of selling to the general public in the ordinary course of business.

6. The transplanting of Understory vegetation, (with any Protected Tree having been approved for transplanting), for use as landscaping material within the site or off the site, provided the Understory vegetation is not transplanted from an Environmentally Sensitive Area.

7. Land Alteration activities within approved Utility Rights-of-Way or Easements necessary to supply gas, water, sewer, telephone, cable television, or electrical service, provided these activities do not adversely impact an Environmentally Sensitive Area; however, any Land Alteration activity within a new electrical

transmission corridor greater than one hundred (100) feet in width does not qualify for this exemption. Pursuant to the definition of Land Alteration, activities undertaken to maintain existing Utility Rights-of-Way or Easements are not regulated by these Land Alteration regulations.

8. Land Alteration activities necessary to install a sprinkler system, septic tank, septic tank drain field, Utility line or swimming pool; or minor filling for topsoil or foundation fill; provided these activities do not involve Protected Tree Removal or are not undertaken within an Environmentally Sensitive Area.

9. Land Alteration activities on residentially zoned land for Single Family or Two Family Dwelling Unit where the principal structure allowed pursuant to the zoning regulations has been previously permitted and constructed after Building Permit has been issued, except for the specific provisions of Sections 4.01.05, and 4.01.09.

10. Land Alteration activities which are normal and necessary to conduct Bona Fide Agricultural and Silvicultural Operations, where those operations are on land in a zoning category, having the appropriate tax exemption, which allows Agricultural or Silvicultural Use and classified as Agricultural land under Section 193.461, F.S. Existing Bona Fide Agricultural and Silvicultural Operations may continue within Planned Unit Developments (PUDs) and Planned Rural Developments (PRDs) when allowed within the ordinance establishing the PUD or PRD district.

11. Land Alteration activities required by an administrative or judicial order for the correction of landfill violations or closure of a landfill pursuant to Chapter 17 of the Florida Administrative Code.

12. In the interest of public safety, health and general welfare during or following high winds, storms, hurricanes, tornadoes, floods, freezes, fires or other manmade or natural disasters, the County Administrator, upon finding that a waiver is necessary and defining geographically the area of the emergency, may suspend the regulations contained in Part 4.01.00 of this Code, in whole or in part, for a period of up to thirty (30) Days in the affected area.

13. The Removal of Trees and vegetation for Fire Protection Breaks.

14. Land Alteration activities necessary for the Construction and safe operation of Airport infrastructure intended for public use. This includes Protected Tree Removal and/or tree and vegetation mitigation associated with Airside Activities such as clear zones and runway safety and protection zones.

15. The Removal of Trees exempted under Section 4.01.05.B of this Code.

D. Certain Activities Exempt From the Provisions of Section 4.01.07, Significant Natural Communities Habitat

1. The terms of Section 4.01.07, pertaining to Significant Natural Communities Habitat, shall not apply to the following activities:

a. Land Alteration activities necessary to make the Improvements shown on Site Development Plans, Subdivision Construction Plans, DRIs, PUDs, and PRDs approved prior to adoption of this Code.

b. Land Alteration activities on land subdivided pursuant to the Subdivision Regulations for a Subdivision that does not require Improvement facilities.

c. Land Alteration activities necessary to construct a Single Family or Two Family Dwelling Unit.

2. Development specifically vested against Land Development Regulations adopted to implement the Comprehensive Plan pursuant to a valid, unexpired Vested Rights Determination shall not be required to comply with Section 4.01.07, pertaining to Significant Natural Communities Habitat.

3. Development approved in a Development of Regional Impact (DRI) Development Order adopted prior to the adoption of this Code is exempt from the provisions of Section 4.01.07, Significant Natural Communities Habitat. Further, any amendment to such DRI Development Order which does not increase the impact of authorized Development within Significant Natural Communities Habitat sought to be protected by the provisions of Section 4.01.07 shall also be exempt from such provisions. Any amendment to such DRI Development Order which adds additional land to the DRI Development Order and increases the impact of authorized Development within Significant Natural Communities Habitat sought to be protected by the provisions of Section 4.01.07 shall be addressed in the manner provided in that Section as to such new land. All other amendments to such DRI Development Order shall be reviewed in accordance with the criteria contained in Section 380.06(19), F.S.

4. The terms of Section 4.01.07 pertaining to Significant Natural Communities Habitat shall not apply to those Land Alteration activities which are normal and necessary to conduct Bona Fide Agricultural and Silvicultural Operations.

5. The terms of Section 4.01.07 pertaining to Significant Natural Communities Habitat shall not apply to those Land Alteration activities which directly relate to Airside Activities at Airports intended for public use. Airside Activities include but are not limited to runways, taxiways, taxi lanes, aircraft aprons, storage hangers, terminal Buildings, aircraft maintenance facilitates, and other similar Airside Activities and Structures.

6. The terms of Section 4.01.07 pertaining to Significant Natural Communities Habitat shall not apply to Development Projects less than ten (10) acres in size.

E. The terms of Section 4.01.06 pertaining to Upland Buffers and setbacks shall not apply to platted or legal and documented Lots of Record existing prior to the initial effective date of this Code to be developed as one (1) Single Family or Two Family Dwelling, except that a minimum twenty-five (25) foot Upland Buffer shall be required unless:

1. A vesting determination is obtained.

2. A Variance is approved pursuant to Article X of this Code.

3. Averaging of the Upland Buffer width, because of an unavoidable reduction, achieves a greater overall Upland Buffer width. When averaging is allowed the Upland Buffer shall in no case be less than ten (10) feet, except for those areas adjacent to unavoidable Wetland impacts such as road crossings.

The Upland Buffer shall be depicted on all Site Plans, Development plans, and other documents submitted to authorize the review for Development. Upland Buffers shall be maintained in their natural vegetated condition. Native vegetation removed or destroyed within the Upland Buffer in violation of this Code shall be restored. These areas shall be replanted with comparable native vegetative species as were removed or destroyed.

Furthermore, any residence and Accessory Uses regardless of the size of the footprint constructed or properly and effectively permitted on such a Lot on the initial effective date of this Code shall for that particular Structure be a deemed vested Use of the Lot in relation to the Upland Buffers and setbacks required by this Section, and such residence and Accessory Use shall not be a Non-Conforming Use under this Code to the extent it shall be replaceable within its existing footprint.

F. The provisions of Section 4.01.06 shall not apply to Lots or portions of Lots where a bulkhead, retaining wall, revetment, the placement of rip-rap, or similar method is used to stabilize or embank a man-made canal existing prior to the enactment of this ordinance amendment and is Constructed pursuant to and in accordance with a validly issued and unexpired Permit from the Florida Department of Environmental Protection, St. Johns River Water Management District, or other agency having jurisdiction.

G. The provisions of Section 4.01.06 shall not be interpreted to prohibit the minimum clearing of upland and Wetland vegetation necessary to construct a dock or other Improvement to provide access to navigable waters in accordance with a validly issued and unexpired Permit from the Florida Department of Environmental Protection, St. Johns River Water Management District, or other agency having jurisdiction.

Sec. 4.01.03 Reserved

Sec. 4.01.04 Soil and Water

Pursuant to the objectives and policies of the Coastal/Conservation Element of the St. Johns County Comprehensive Plan, the following measures shall be taken to protect and conserve Soils and Water within the County:

A. Minimization of Impact

1. Proposed Improvements shall be designed and located to minimize Land Alteration activities which would unnecessarily Remove the existing vegetation or alter the topography of the natural land surface.

2. Adequate protection measures, such as hay bales, baffles, sodding and sandbagging, shall be provided as necessary to minimize erosion and downstream sedimentation caused by surface water runoff on exposed land surfaces.

B. Surface Water Discharges

1. The turbidity of surface water discharged off-site or into any Wetland or Natural Water Body on-site shall not violate the water quality standard for turbidity as stated in Chapter 62-302, F.A.C. Turbid water in violation of this standard shall be treated prior to discharge off-site or into any Wetland or Natural Water Body on-site by using sediment control measures such as settling basins, berms, interceptor ditches, silt screens and other sediment traps. Whenever sediment control measures are necessary, they shall be installed prior to initial clearing and grading operations and maintained throughout the Land Alteration activity as a condition of granting the Permit.

2. Surface water runoff shall be discharged only within the drainage area that normally receives this runoff, unless otherwise approved by the St. Johns River Water Management District or other state or federal agency having jurisdiction.

C. Excavation

1. Applicants must ensure that any proposed Excavating activities meet the standards of the Florida Department of Environmental Protection and St. Johns River Water Management District.

2. Excavating activities shall not adversely impact water levels of either surface water or groundwater on surrounding property. The County shall ensure compliance with Florida Department of Environmental Protection and St. Johns River Water Management District permitting requirements for maintenance of water levels for surface water and groundwater.

D. Exposed Soils

Exposed soils shall be vegetated immediately upon completion of Land Alteration activities. Areas may be sodded, plugged, sprigged, seeded or covered with other vegetation as desired. In areas where erosion is likely, such as slopes greater than five to one (5:1) or areas of erosion prone soils, the County Administrator may determine that sodding is required. Where erosion is found to be occurring, sodding shall be required. In areas where grass seed is used, nurse grass seed (e.g. rye, millet) shall also be sown for immediate effect.

E. Placement of Fill

Fill shall not be placed in Wetlands, Natural Water Bodies, natural water courses, or related floodplains up to and including the 100-year floodplain, manmade/artificial channels, or any natural or manmade stormwater storage area, without prior approval of all applicable state and federal permitting agencies having jurisdiction.

F. Water Conservation

Water efficient landscaping and irrigation systems shall be used in order to maximize the conservation of water. Water efficient landscaping is Florida Friendly or Xeriscape landscaping that utilizes plants that are adaptable to local conditions, employs proper landscape planning of placing the right plant in the right place and utilizes plants which are drought tolerant. Water efficient irrigation uses irrigation systems and techniques that

minimize loss of water through proper design and equipment installation that prevents overspray, overwatering and evaporation.

Sec. 4.01.05 Trees and Other Vegetation

A. Permits; Criteria for Issuance

A Permit will be issued after proper application and approval by St. Johns County which clearly demonstrates compliance with this Code. This Permit authorizes the Land Clearing, Grubbing, or Removal of Protected Trees and Understory vegetation only as depicted on an accompanying Site Plan. Specimen and Historic Trees, as defined in Section 4.01.05.D shall not be impacted unless as allowed by the County Administrator or his designee upon showing of good cause, and where the Owner/Applicant proposes an alternative prepared by a Certified Arborist which conforms to the general intent and spirit of these regulations, and where the objectives of this Article have been substantially met.

1. Criteria for Issuance of a Permit

a. Protected Tree Removal

Protected Tree Removal shall only be allowed when at least one of the following criteria has been determined by County review with respect to each Protected Tree designated for Removal under the required Permit:

(1) That the Protected Tree is located within the Building Footprint or within an area five (5) feet outside the Building Footprint of a given site, as identified on the approved Site Plan to minimize the loss of Protected Trees approved through the Development Review process.

(2) That the Protected Tree is located within an existing or proposed Right-of-Way that has been approved under a Development Order issued by the County; or the Tree is located in an existing public or private Right-of-Way.

(3) That the Protected Tree is located within an existing or proposed Easement, stormwater management tract or facility, within the minimum area reasonably necessary for the contemplated service or Use.

(4) That the Protected Tree is located where its continued existence would unreasonably interfere with the physical Construction of the Improvements on a particular site from interference with the access to the site by Construction equipment, or with the operation of the equipment on the site in the immediate vicinity of the proposed Structure or Improvement; and in areas requiring Removal of muck and other unsuitable materials.

(5) That the Protected Tree is located where it creates or will create a safety or health hazard with respect to an existing or proposed Structure or vehicle or pedestrian routes.

(6) That the Protected Tree is located where it interferes with the installation, delivery, or maintenance of proposed or existing Utility services to the site.

(7) That the Protected Tree is diseased, injured or in danger of falling.

(8) That the Protected Tree is located on a portion of the site outside of the Building Footprint but within the interior area of the site to be used as a vehicular use area or vehicular and pedestrian ingress and egress.

(9) That the Protected Tree is located within a portion of the site approved for clearing under Section 4.01.05.A.1.b. and Section 4.01.05.F.1.b.

b. Land Clearing

Land Clearing shall not be allowed unless the County Administrator finds that all of the following criteria have been satisfied:

(1) The Land Clearing is necessary in order to make site Improvements already authorized by an approved Site Plan, Subdivision approval, or Development Permit, and that the area to be cleared is the minimum necessary for such work or (in the event the aforementioned approvals are not required by law for the intended Use of the property) that the proposed clearing is the minimum necessary for the proposed Use of Improvement and is in conformance with Section 4.01.05.A.1.a. “Protected Tree Removal.”

(2) The Applicant shall provide and implement a reasonable written plan to control erosion which may be expected to occur as a result of the proposed Land Clearing. The erosion control plan must meet the requirements of the Roadway, Drainage, & Utilities Standards in Part 6.04.00 and obtain review approval. The plan shall incorporate some or all of the following means as determined by the Applicant: temporary seeding and mulching, sodding, diversion berms, interceptor ditches, sediment barriers, sediment basins, and related appurtenances or devices.

(3) All provisions of a final submitted erosion control plan shall constitute a condition of Permit issued and a violation of any of the conditions or provisions of the plan shall be considered a violation of this Code, and subject to all enforcement provisions.

(4) The Applicant has or is complying with all Tree protection provisions contained elsewhere in this Code.

2. Posting of Permits

The Permit shall be posted in a conspicuous and visible place at the front of the property. The Permit shall be protected from the weather and be located in such location by the Applicant promptly after issuance, during, and for a period not less than one month after the Protected Tree Removal and/or Land Clearing or until a Building Permit is issued, whichever occurs first. It is the responsibility of the Permit Applicant to maintain the Permit, or to promptly obtain a replacement copy from the County if necessary.

3. Permits required by this Code may be obtained after-the-fact for Land Clearing and/or Tree Removal activities upon determination by the County Administrator that such activities were performed in accordance with Permit issuance criteria specified in this Section. Such fee for an after-the-fact Permit shall be as established by Resolution of the Board of County Commissioners in a separate fee schedule.

B. General Prohibitions

It shall be prohibited and subject to penalties contained herein for any Person directly or indirectly to perform any of the following, unless exempted herein or by an approved Variance.

1. To perform Protected Tree Removal, damage any Protected Tree, or Land Clearing without a valid County Permit.

2. To perform any Construction activity, including Land Clearing and Protected Tree Removal, without first erecting Tree Protection Barricades to at least include the Protected or preserved Tree's Protected Area as defined in this Code.

3. To change earth grade within the required Protected Area of any preserved Protected Tree unless approved by the County Administrator.

4. To modify drainage which causes water to be trapped within a required Protected Area of any preserved Protected Tree.

5. To perform Land Clearing or Protected Tree Removal on the individual platted Lots within a new multi-Lot residential Project, unless Construction Plans are approved for clearing in these areas as defined in Section 4.01.05.F.1.b. On residential Projects requiring clearing for New Construction, Protected Tree Removal may only occur for the road Rights-of-Way, drainage areas and Utility Easements as shown and approved on the Project's Construction Plans.

C. Exemptions

Notwithstanding anything to the contrary in this Code, the following activities shall be lawful without application for and issuance of a Permit. None of these exemptions shall apply to any Dune vegetation seaward of the Coastal Construction Control Line or to a Specimen Tree, or Historic Tree, unless otherwise stated below. The burden of proving entitlement to any particular exemption shall lie with the Person claiming the exemption. Exemptions are as follows:

1. The Removal, trimming, pruning or alteration of any unprotected Tree or other vegetation when necessary for:

   a. The clearing of a path not to exceed ten (10) feet in width to provide physical access or view necessary to conduct a survey or site examination for the preparation of Subdivision plats, Site Plans. The path may be widened to avoid a Protected Tree. However, Land Clearing for surveys shall not authorize the Removal of Protected, Specimen or Historic Trees.

   b. The clearing of a path not to exceed ten (10) feet in width to provide vehicular access necessary to conduct soil percolation and/or soil bore tests on a property.

   c. Creation of a Fire Protection Break

2. Routine landscape maintenance such as trimming or pruning of vegetation which is not intended or reasonably likely to result in damage or the eventual death of any Protected Tree; and mowing of yards or lawns, or any other landscaping or gardening activity, which is commonly recognized as routine non-commercial gardening or routine maintenance or replacement. This exemption shall be construed to allow routine maintenance of commonly grown horticultural vegetation growing on Dunes seaward of the Coastal Construction Control Line, provided the Person owning such property, or his/her agent, first provides sufficient documentation evidencing express permission for such activity from the Bureau of Beaches and Coastal Systems of the Florida Department of Environmental Protection of the State of Florida.

3. The Removal, trimming, pruning or alteration of any Protected Tree or vegetation in an existing Utility or drainage Easement or Right-of-Way provided such work is done by or under the control of the operating Utility company, or governmental agency, or property Owner's association or entity responsible for maintaining drainage Improvements and in the case of Utility Easements, said entity has received all necessary licenses or Permits to provide Utility service within the Easement. To qualify as an existing Easement or Right-of-Way, it shall be legally recorded and platted or have drainage or Utility Structures in place prior to the effective date of this Code.

4. The Removal, pruning, trimming or alteration of any Protected Tree or vegetation for the purpose of maintaining an existing access to a property.

5. The movement or storage of any vehicle within or across a Protected Area for the purpose of using or maintaining an access to property that existed prior to the adoption of this Code.

6. Any activity conducted on land operating as a Bona Fide Agricultural Use or Silvicultural Use such as a commercial nursery, farm, wetland enhancement, wetland creation areas, ranch or similar operations. This exemption shall include the purposeful Removal of a Protected Tree or Trees excluding Historic and Specimen Trees. When Land Clearing or Protected Tree Removal has been performed under this exemption based upon the Use of the property for an Agricultural Use, no County Development approvals shall be given for any non-

Agricultural Use or Improvement on the same site within four (4) years of the completion of such Land Clearing or Protected Tree Removal. However, the four (4) year rule shall not apply if the land to be developed has maintained at least eighty (80) D.B.H inches per acre. Existing Bona Fide Agricultural and Silvicultural Operations may continue, within Planned Unit Developments (PUDs) and Planned Rural Developments (PRDs) when allowed with the ordinance establishing the PUD or PRD district.

7. Any Tree which constitutes an immediate peril to life, property, or other Trees of equal or greater Tree inches, may be Removed without an advanced permit, provided that it is followed by a written notification to the County Administrator within three (3) weeks with clear and complete photographic evidence for issuance of retroactive Permit for Removal of the Protected Tree.

8. The mowing or underbrushing of a land area that does not disturb the soil profile when conducted without disturbance, damage or Removal of Protected Trees.

9. The Removal, trimming, pruning or alteration of any Protected Tree or vegetation for the purpose of maintaining the FAA FAR Part 77 surface around public use Airports required for the safe operation of aircraft on and around the Airport.

10. The Removal, trimming, pruning or alteration of Protected Trees or vegetation required for Airside Construction at public use Airports.

11. Land Clearing or Protected Tree Removal for existing single family residential home sites situated on a Lot of Record one (1.0) acre or less in size; except that Historic and Specimen Trees shall not be removed without obtaining approval from the County Administrator unless diseased or a substantial threat to the existing house. Furthermore, the same exemption shall apply to land within one hundred (100) feet of the perimeter of an existing single family residential home situated on a Lot of Record larger than one (1.0) acre. Newly constructed single family residential homes shall become exempt upon the issuance of a Certificate of Occupancy.

D. Historic and Specimen Tree Designation

1. Designation as a Historic Tree may commence in any one of the following ways:

   a. An Applicant may request such designation as part of any master plan, preliminary Subdivision plat, or preliminary Site Plan application. To do so, the Applicant shall submit evidence to the County Administrator that the Historic designation is proper.

   b. A property Owner may request such designation at any time. In making such request, the property Owner shall submit the request and an expert evaluation to the County Administrator.

   c. The County Administrator may request such designation as part of an overall Historic Tree protection planning program for the County or portion thereof.

2. The County Administrator shall present, from to time, all Tree designation requests with documentation for Trees meeting the criteria of Historic Trees to the Board of County Commissioners of St. Johns County for its consideration and designation.

3. Specimen Tree Designation

   The County Administrator, property Owner, or an Applicant may request that a Native Tree become a Specimen Tree when professional field measurements document species, height, crown spread, D.B.H. and overall condition. The results in total points awarded a Tree designee must be equal to or greater than seventy percent (70%) of the current Florida State Champion Tree for that species as published in "Big Trees the Florida Register" for all species except that the total points awarded must equal or exceed fifty percent (50%) for Laurel Oak, Live Oak, Southern Magnolia and Southern Red Cedar. The County Administrator shall review and approve all Specimen Tree designation requests.

4. On sites where grade cuts are necessary under Historic or Specimen Trees proper root pruning shall be required. Within the Tree's Protected Area, all excavation shall be by hand, and roots two (2) inches and larger shall be evenly cut.

5. When underground Utilities are necessary under Historic or Specimen Trees, tunneling shall be required. The underground Utility tunnel shall begin at the Tree's Protected Area and be a minimum of four (4) feet deep. No open vertical trenches shall be allowed within a Historic or Specimen Tree's Protected Area.

6. A Tree Protection Barricade shall be installed at the Protected Area of each Specimen Tree and shall be inspected by the County prior to the initiation of any Construction activity on site and shall remain in place throughout Construction.

   SPECIMEN TREE POINT CALCULATION

   Total points shall be determined by using the following formula:

   (Average crown spread in feet) divided by 4 + (Circumference in inches) + (Height in feet) = Total Points

Example:	Crown spread maximum	68 feet
	Crown spread minimum	52 feet
		120 Total / 2 = 60 feet Average

   60 feet / 4 = (15) + Circumference (135 in.) + Height (41 ft.) = (191) Total Points

E. Value Assigned to Trees, Notes, Tree Bank Fund, and Remedy for Protected Tree Removal without a Permit.

1. Protected Trees, as defined in Article XII, are assigned values based on Caliper size or DBH measurement.

Note 1. Bonus: Tree inches shall be assigned for any Native Tree(s) preserved within a Parking Area, or between a road right of way and the Parking Area or Building Footprint,

such that the distance separating these areas is not more than one hundred (100) feet. These inches may be applied against the deficit of Tree inches from Removal of other Protected Trees. These Trees become Protected Trees, and shall be clearly identified on plans.

Note 2. Bonus: A stand of ten (10) or more Native Protected Trees in a cluster with one (1) continuous drip line shall also earn double Tree inch value. Trees, which are Protected size or not Protected size within this area shall be included, as long as they form a continuous drip line. Tree inches from these Trees shall be applied against the deficit of Tree inches from Removal of other Protected Trees. All of these clustered Trees become Protected and shall be clearly identified on Site Plans submitted.

Note 3. Planted Multi-Trunk Trees shall earn total Tree inches based upon the size of each individual trunk such that the largest three trunks of the Multi-Trunked Tree shall be added together to obtain the Tree's total Caliper size.

Note 4. Bonus: Transplanted from on site Native non-Exempt Trees up to twelve (12) inch DBH: These Trees shall receive Tree inch value, and these Tree inches may be applied against the deficit of Tree inches from Removal of other Protected Trees. All Trees of unprotected size then become Protected Trees and shall be labeled as such on all appropriate Site Plan sheets.

Note 5. All planted Palms shall receive three (3) Tree inches of value for those with six (6) feet to fifteen (15) feet of clear trunk and six (6) Tree inches of value for those greater than fifteen (15) feet clear trunk. Those surveyed at Protected Tree minimum size shall all be assigned six (6) Tree inches of value.

Note 6. Trees planted to receive Tree inch value shall be selected so:

(a) At a minimum, seventy percent (70%) of the replacement Trees shall be Canopy Trees, including Parking Areas, unless Canopy Trees are not suitable, as reasonably determined by the County Administrator in the area to be planted.

(b) To provide diversity, no one species shall constitute more than fifty percent (50%) of the total replacement planting.

(c) All replacement Trees shall be a minimum two (2) Tree inch Caliper measured no closer than six (6) inches from the ground.

(d) Non-Canopy Trees shall not be planted closer than ten (10) feet from other Trees and Canopy Trees shall not be planted closer than twenty (20) feet to thirty (30) feet from other Trees unless approved by the County Administrator.

(e) All landscape plans shall include all lighting structures, electrical overhead lines, and other vertical objects so as not to interfere with plantings.

Note 7. As allowed by conditions set forth by 4.01.05.F, Tree inventories on a numbered overlay map may be conducted by a registered land surveyor, registered landscape

architect, registered Professional Engineer, Certified Arborist, or under the supervision and certification of the above listed professionals.

Note 8. Tree species selected for planting are subject to County approval based upon site conditions including but not limited to: soil characteristics, planting area size, visibility concerns and Utility conflicts.

Note 9. Utility Easement areas shall be deducted from the acreage calculation when determining the required Tree inches per acre. No Trees shall be planted within these easements as they are to be kept clear for Utility installations and Improvements.

2. St. Johns County Tree Bank Fund

a. A dedicated financial fund shall be created under authority of this Code to receive payments as detailed elsewhere in this Article, when Protected Trees are not replaced after Removal. The Tree Bank shall be a separate line item set up and shown on County financial records in which all receipts are detailed. Expenditures of Tree Bank funds occur after approval by the Board of County Commissioners in advance of the expenditure for the following projects:

(1) County Construction and capital improvement limited to cost of Trees, landscaping equipment and associated installation and irrigation equipment incidental to the installed landscaping.

(2) Beautification limited to the cost of Trees, landscaping equipment and associated installation and irrigation equipment incidental to the beautification project. Where Tree Bank funds are used to plant trees in County Road medians or shoulders, such funds may also be used to fund design by a Registered Landscape Architect to assure the safety, viability and appropriateness of such plantings.

(3) Conservation or natural preserve area protection and enhancement limited to cost of Trees, landscaping equipment, access and trails, and associated installation and irrigation equipment incidental to the enhancement project.

(4) To mitigate negative environmental effects of tree removal and the loss of treed acreage and to provide the ability to mitigate wildlife displacement as reasonably determined by the County Administrator using acceptable environmental evaluation practices and programs or preservation land assessment and acquisition.

(5) Multi-family or Single Family Lots for housing qualifying under State and Federal affordable/workforce housing programs in order to meet applicable Tree inch Requirements.

An annual separate accounting statement shall be presented to the Board of County Commissioners by the County Administrator detailing yearly activity of the Tree Bank Fund.

b. The Tree Bank Funds may not be used to fund ongoing maintenance costs following the completion of a project.

3. Enforcement for Protected Tree Removal without a permit

Protected tree inches removed due to unauthorized clearing shall require mitigating the Tree inches lost through replanting or a combination of replanting a portion of the Tree inches lost and providing a Tree Bank Fund payment for those inches not replanted. Additionally, the payment of a fine as set forth in this Section shall apply and be paid to the Tree Bank Fund. All mitigation shall be accomplished after the notification of the violation within the six (6) month suspension period. All fines shall be rendered no more than thirty (30) days after the notification of violation.

a. Removed Protected Trees are to be replaced with like Trees of the same size, species, and location. When replacement of Protected Trees is not practical as reasonably determined by the County Administrator, an equal number of inches of the same species shall be applied to replace the Trees. The plantings shall meet the general planting requirements as provided in this Article, and shall be planted on the same site.

b. If site conditions prevent the replanting of all the Tree inches lost, as determined by the County Administrator, payment into the St. Johns County Tree Bank Fund for the portion of the Tree inches not replanted is required. The rate of payment shall be at the replacement cost of the particular species, at a two (2) inch Tree size, as determined by a replacement cost estimate.

c. Fines assessed for unauthorized Protected Tree removal shall be:
- $200 for each Tree 8 inches to less than 12 inches
- $400 for each Tree 12 inches to less than 20 inches·
- $800 for each Tree 20 inches to less than 30 inches
- $1,000 for each Tree 30 inches or greater

d. Fines assessed for unauthorized removal of Protected Sand live oak or Southern Red Cedar shall be:
- $200 for each Tree 2 inches to less than 4 inches
- $400 for each Tree 4 inches to less than 8 inches
- $800 for each Tree 8 inches to less than 12 inches
- $1,000 for each Tree 12 inches or greater

e. The fine assessed for unauthorized removal of a Specimen Tree shall be $5,000 for each Specimen Tree removed.

f. If a site is cleared without authorization and Trees are removed such that the County Administrator is unable to assess the number and size of Protected Trees removed, such violation shall be subject to a fine of $30,000 per acre, or fraction thereof, of land cleared.

g. Issuance of all Development permits with respect to the subject property shall be suspended for a period of six (6) months during which time all mitigation shall be satisfied.

h. These provisions to achieve compliance do not preclude the use of Code Enforcement activities as provided by Article 10.05.00 of this Code or any other enforcement activities permitted by law.

F. Permit Application Procedures

1. Application for any Permit required by Section 4.01.05 shall be in writing on a form provided by the County Administrator. Applicants shall provide all information necessary to evaluate the application to include, but is not limited to, proof of Applicant's legal or equitable interest in the proposed site plus a scaled Site Plan giving all details on Lot configuration and dimensions plus all existing and proposed constructed Improvements of any kind. In addition, more specifics on existing Protected Trees and vegetative cover for different types of Projects shall be provided by the Applicants as detailed below. Permits shall be issued showing compliance with the procedures listed below, and may be issued before complete approval of Construction Plans.

a. For Commercial Building Sites and Subdivisions

(1) A Site Plan identifying all Protected Trees shall be provided by the Applicant. The Site Plan shall depict all the proposed Improvements and any existing Protected Trees by either Tree Location or Inventory of Trees as set forth below.

(a) Protected Tree inches that are located within the limits of clearing where: less than six inches (6) of grade change is required, or Trees that are to be preserved for Tree inch value which offsets removed Tree inches, shall be Tree Located on the Site Plan.

(b) Protected Tree inches that are located within the limits of clearing where: greater than six (6) inches of grade change is required, an Inventory of Trees shall be provided on the Site Plan.

(c) Trees preserved for inch value in areas that are outside the limits of clearing may be shown by an Inventory of Trees method for value.

(2) The Site Plan shall include a tally of Tree inches lost by Removal of Protected Trees.

(3) All Trees of Specimen size as defined by 4.01.05.D or Historic Trees shall be identified on the Site Plan by Tree Location method.

(4) A tally of Tree inches of all Protected Trees to be Removed under the final approved Site Plan shall be submitted with landscape plans

illustrating the maximum Tree inches to be reasonable earned by replacement planted Trees. A twenty-five dollar ($25) per lost Tree inch deficiency charge for any unavoidable loss shall be paid into the St. Johns County (SJC) Tree Bank Fund or replacement with new plantings equal to the number of Tree inches lost before final Development Review approval of the Development site. In the event that the Development site is not adequately Treed, a minimum of eighty (80) Tree inches per acre (or prorated portion) shall exist after completion of Construction.

Construction of commercial projects shall be exempt from payment in the Tree Bank Fund for lost Tree inches provided:

(a) The project meets or exceeds the minimum eighty (80) Tree inches per acre, and

(b) All efforts have been reasonable made to replant within the Development Area, and

(c) Any increase in paving above minimum standards must be approved by the Environmental Division.

Construction of Regional Parks shall be exempt from payment into the Tree Bank Fund for lost tree inches upon demonstration that all reasonable efforts have been made to replant within the Development Area. This exemption does not alleviate the requirement to meet the minimum eighty (80) Tree inches per acre requirement as noted above.

b. For Development of Lot areas within Subdivisions

(1) No Land Alteration is allowed in Lot areas which require less than six (6) inches of grade change.

(2) All Lot areas that require more than six (6) inches of grade change shall include an Inventory of Trees of all Protected Trees within said area, and they shall be considered lost.

(3) Mitigation for all Protected Trees lost shall be by one of the following methods:

(a) The total tree inches lost from the Lots are reduced by the calculated tree inches to be planted on the Lots, as calculated on the Neighborhood Site Plan. The balance of removed tree inches are to be paid into the Tree Bank fund at twenty-five dollar ($25) per lost Tree inch, at the time of Construction Plan approval.

EXAMPLE: Total Tree inches Removed minus NSP Tree inches equals balance of Tree inches.

(b) The total Tree inches shall be replaced by new plantings outside the future Building Restriction Lines of each Lot.

(4) Building Lot areas developed under this provision shall be grassed within thirty (30) Days after completion of the filling and grading of such Building Lots.

(5) All Trees of Specimen size as defined by 4.01.05.D or Historic trees shall be identified on the Site Plan by Tree Location method.

(6) A minimum of forty (40) Tree inches per acre shall exist after completion of Construction.

c. Development of Individual Residential Lots

(1) No Land Clearing or Protected Tree Removal shall be allowed before receiving an approved Site Plan. Applications for such approval shall be submitted complete with a scaled detailed Site Plan showing all Lot characteristics and dimensions, all existing and proposed Construction Improvements, all fill including septic mounds, onsite sanitary disposal tanks and any wells. On any portion of a Lot with less than six (6) inches of grade change, said Site Plans shall also show in their proper approximate location all existing Protected Trees which shall thereafter be protected and saved during Building Construction to minimize future expense in planting Trees necessary to meet the forty (40) Tree inches per acre requirement.

(2) For purposes of this Code, all Protected Trees in any area with six (6) inches or more grade change shall be considered Removed and no Tree inches shall be given for such Trees. At Final Inspection County personnel shall verify forty (40) Tree inches per acre exist, either preserved or planted in the Lot area.

d. For Right of Way or Utility Construction projects (no other proposed Construction)

(1) The Limits of Construction shall only include the required Right of Way, drainage ways, impoundments, and Easement areas.

(2) All Trees of Specimen size as defined by 4.01.05.D or Historic Trees shall be identified on the Site Plan by Tree Location method.

(3) An Inventory of Trees shall be provided of all Protected Trees, and the total Protected Tree inches are to be replaced by payment into the Tree Bank fund at a rate of twenty-five dollars ($25) per inch, or at the Developers option, replacement Tree inches planted within the site area.

(4) A minimum of forty (40) Tree inches per acre shall exist after completion of Construction.

Construction for Arterial and Collector roadways shall be exempt from payment into the Tree Bank Fund for lost tree inches upon demonstration that all reasonable efforts have been made to replant within the Development area. This exemption does not alleviate the requirement to meet the minimum forty (40) Tree inch requirement as noted above.

2. For Erosion Control

If Land Clearing is intended, an erosion control plan per Section 4.01.05.C.1.b. shall be submitted at the time of the Permit application. The Permit application shall be submitted and processed concurrently with Site Plan review or Subdivision review. The Site Plan or Subdivision plan shall be prepared in a manner to allow ready comparison with the Tree Survey in order to assess whether the cited criteria have been met. All items shown shall be properly dimensioned, scaled and referenced to the property lines, and setback or yard requirements provided.

3. Permit Expiration

Any Permit issued shall remain valid for a period consistent with the Development Review Committee Site Plan approval. The County Administrator may require reapplication and full review in those cases where site conditions have changed substantially from the date of issuance of the initial Permit.

G. Determination of Protected Area

The County Administrator shall review each application, and may inspect each site, for the purpose of making a determination as to the appropriate measures to protect the Protected Area on a given site. The Protected Area shall be the Drip Line of a Protected Tree. A Tree Protection Barricade shall be installed at the Drip Line, unless an alternative is approved by the County Administrator. No Land Clearing or Tree Removal shall begin until after the Protection Barricades are installed and the Barricades shall remain in place until after completion of Construction. Any preserved Tree damaged during Construction will be considered Removed and will have to be replaced. Damage may include, but is not limited to, mechanical damage resulting in the removal of bark, limbs, leaders, and sign attachment, or root damage resulting from grade changes, Utility installation, excessive scraping, removal of Understory, and compaction from heavy machinery.

Sec. 4.01.06 Environmentally Sensitive Areas - Wetlands, Estuaries, and Natural Water Bodies

A. Activities Prohibited, Allowed

1. Land Alteration activity which destroys, reduces, impairs or otherwise adversely impacts a Wetland or Natural Water Body shall be prohibited unless specifically authorized and permitted by all applicable state and federal permitting agencies having jurisdiction.

2. Notwithstanding the provisions of Section 4.01.06.B.1. and 2., a minimum natural vegetative Upland Buffer of fifty (50) feet shall be required and maintained between

developed areas and the St. Johns River, Matanzas River, Guana River, or Tolomato River, regardless of any other regulatory agency requirement of a lesser distance. This requirement shall also apply to the portions of tributaries, streams, or other water bodies connected to the St. Johns River, Matanzas River, Guana River, or Tolomato River. Such portions of these tributaries, streams, or other water bodies shall be established by the mean high water line of the applicable tributary, stream or other water body and such mean high water line shall be depicted on all Site Plans, Development plans, and other documents submitted to authorize the review for Development. The fifty (50) foot Upland Buffer shall be measured from the St. Johns River Water Management District or Florida Department of Environmental Protection Wetland jurisdictional line. It is the objective of this requirement that a minimum fifty (50) foot Upland Buffer be established in all areas except for those circumstances where an averaging of the buffer width, because of an unavoidable buffer reduction, achieves a greater overall Upland Buffer width. In no instance shall the Upland Buffer be less than twenty-five (25) feet, except for those areas adjacent to unavoidable wetland impacts. In all cases, the applicable buffer shall be depicted on all Site Plans, Development plans, and other documents submitted to authorize the review for Development. Upland Buffers shall be maintained in their natural vegetated condition. Native vegetation removed or destroyed within the Upland Buffer in violation of this Code shall be restored. These areas shall be replanted with comparable native vegetative species as were removed or destroyed.

3. Any Wetlands, Estuaries, and Natural Water Bodies required to be protected from Development under an applicable Permit shall be designated Conservation Area on all Development Plans and plats. Any allowable Uses approved in the Permit within the Conservation Area shall be noted on such Development Plans and plats.

B. Buffers and Setbacks

In accordance with policies of the Coastal/Conservation Element of the Comprehensive Plan, for any new Development after the adoption of this Code, the following Upland Buffers and setbacks are established.

1. Except as provided in Section 4.01.06.A.2., a minimum twenty-five (25) foot natural vegetative Upland Buffer shall be required and maintained between developed areas and Contiguous Wetlands to protect the water quality of the Wetlands. The twenty-five (25) feet shall be measured from the St. Johns River Water Management District or Florida Department of Environmental Protection Wetland jurisdictional line. It is the objective of this requirement that a minimum twenty-five (25) foot Upland Buffer be established in all areas except for those circumstances where an averaging of the buffer width, because of an unavoidable buffer reduction, achieves a greater overall Upland Buffer width. In no instance shall the Upland Buffer be less than ten (10) feet, except for those areas adjacent to unavoidable Wetland impacts such as road crossings. In all cases, the applicable Buffer shall be depicted on all Site Plans, Development plans, and other documents submitted to authorize the review for Development. Upland Buffers shall be maintained in their natural vegetated condition. Native vegetation removed or destroyed within the Upland Buffer in violation of this Code shall be restored. These areas shall be replanted with comparable native vegetative species as were removed or destroyed.

2. In addition to the requirement of Section 4.01.06.B.1, a twenty-five (25) foot setback shall be required for all Parcels of land adjacent to Contiguous Wetlands, except where a 50 foot Buffer is required in Section 4.01.06.A.2. Reduced (no minimum) setbacks may be allowed within the portion of the Parcel to be developed except for residential, as approved by the County Administrator using acceptable environmental evaluation practices. Provided there is no encroachment into the required Upland Buffer, all Accessory Uses, as provided in Section 2.02.04 shall be permitted within this setback, except Buildings which have a permanent foundation. Such Accessory Uses shall be subject to the requirements of this Code. Further, provided there is no encroachment into the Upland Buffer, this setback requirement shall not apply to: the installation of a sprinkler system, Utility line, landscaping, fencing, and gazebos; the Construction of a road essential for access and the Construction of a stormwater retention or detention basin or other stormwater related Structure; the Construction of a recreational trail, golf cart path, or similar Structure; and any necessary grade finishing to provide a gradual slope between the setback line and the Upland Buffer.

3. The twenty-five (25) foot setback requirement from the Upland Buffer as required in Section 4.01.06.B.2 shall not be required for residential lots adjacent to Contiguous Wetlands when the required Upland Buffer is not included within the platted lots. In this instance, residential lots are subject only to the applicable zoning district minimum setbacks.

C. The following criteria shall be applied when reviewing the Upland Buffer:

1. As established in Section 4.01.02.E or Section 4.01.06, the applicable Upland Buffer shall be required for all Contiguous Wetlands. In instances where Upland Buffer averaging is utilized the applicable minimum Upland Buffer shall be maintained in conjunction with achieving a greater overall Upland Buffer width.

2. All required valid and unexpired permits from state and federal regulating agencies shall be provided to the County prior to commencement of Construction.

3. In an area where the Upland Buffer is or will be comprised of fill material, or the bank of a stormwater system, with permits by state and federal regulating agencies, the area shall be reestablished as a natural Upland Buffer by the replanting of plants that are natural and native to the original ecological community. Turf grasses and exotic or non-native plants are expressly prohibited. Upland Buffer planting plans shall be provided with the Development application.

4. A request for a Variance to Section 4.01.02.E or Section 4.01.06 of the Land Development Code for the purposes of unavoidable wetland impacts may be administratively approved by the County Administrator in conjunction with an application for Development review upon finding that all of the following criteria are met:

a. All required valid and unexpired permits from state and federal regulating agencies have been issued and are provided with the Development application or will be made a contingency for variance approval.

b. The Variance request is limited to:

(1) A road crossing.

(2) Public infrastructure and Utility crossings or rights-of-way that are related to transmission or conveyance of a service.

(3) A driveway on a Legal Lot of Record to a single-family residence.

(4) A wetland impact as permitted by state and/or federal regulating agencies.

(5) Necessity similar to circumstances above, where absent a variance, there could be no reasonable use of the property.

c. A Variance shall not be approved for self-created hardships such as, but not limited to:

(1) Placing a road crossing, Utility crossing, rights-of-way, driveways, or other features in wetlands instead of uplands for the sole purpose of providing additional upland area for Development.

D. Development

1. All new Development impacting these areas shall be designed and constructed to federal, state and County specifications to minimize stormwater and pollutant discharge.

2. All new Development impacting these areas shall meet the standards and requirements of Part 6.04.00, Roadway, Drainage & Utility Standards and Part 3.03.00, Flood Damage Control Regulations.

3. Pursuant to policies of the Coastal/Conservation Element of the Comprehensive Plan, users of septic tank systems shall be required to connect to central sewer systems once service becomes available in that area, as required by applicable Utility ordinances and this Code.

4. The County shall protect Estuaries, Wetlands, and Natural Water Bodies by ensuring compliance with Florida Department of Environmental Protection standards for Wastewater discharge into Class II and III waters.

E. Silviculture activities within these areas shall follow practices outlined in the following:

1. “Silviculture Best Management Practices 1993”, as updated, Florida Department of Agriculture and Consumer Services, Division of Forestry.

2. Comply with the requirements of Chapters 373 and 403, F.S.

3. Comply with the St. Johns River Water Management District Silviculture Rule, Chapter 40C-400.500, F.A.C.

Sec. 4.01.07 Environmentally Sensitive Areas - Significant Natural Communities Habitat; General Provisions

A. Section 4.01.07 provides standards and guidelines for the protection of Significant Natural Communities Habitat.

B. Onsite Conservation shall be considered the most desirable alternative to protect Significant Natural Communities Habitat and plant and wildlife species located within these areas. However, there are provisions to provide Offsite Conservation as an alternative.

C. Significant Natural Communities Habitat shall be identified, and areas to be established as Preservation shall be designated Conservation Area on all Development Plans and plats equal to or greater than ten (10) acres in size.

D. Land Alteration activity which destroys, reduces, impairs or otherwise adversely impacts a Preservation Area shall be prohibited unless specifically approved by the Board of County Commissioners, or exempted in Section 4.01.02.D.

E. Development Projects equal to or greater than ten (10) acres in size containing Significant Natural Communities Habitat shall provide protection of the Significant Natural Communities Habitat as provided below:

1. Ten percent (10%) of the Significant Natural Communities Habitat contained within the Development Project shall be established as Preservation. Onsite Conservation of Listed Species Essential Habitat may also be required subject to the requirements of Section 4.01.08. However, in no instance shall the total amount of upland required to be established as Preservation for Significant Natural Communities Habitat or designated for Onsite Conservation for Listed Species Essential Habitat exceed ten percent (10%) of the total upland area of the Development Project, unless required by a federal or state regulatory agency with jurisdiction.

2. Where establishment of Preservation areas within a Development Project, as required above, results in small, fragmented areas with limited habitat value, as determined by the County Administrator in coordination with applicable state or federal agencies, Offsite Conservation shall be allowed.

F. Silviculture activities within these areas shall follow practices outlined in the following:

1. “Silviculture Best Management Practices, 1993”, as updated, Florida Department of Agriculture and Consumer Services, Division of Forestry.

2. Comply with the requirements of Chapters 373 and 403, F.S.

3. Comply with the St. Johns River Water Management District Silviculture Rule, Chapter 40C-400.500, F.A.C.

G. In accordance with policies of the Coastal/Conservation Element of the Comprehensive Plan, St. Johns County has identified rare species and natural communities within the County. The following is a list of Imperiled Habitats within St. Johns County, hereinafter

referred to as Significant Natural Communities Habitat as provided by Florida Natural Areas Inventory.

Imperiled Habitats are:

1. Beach Dune

2. Coastal Grasslands/ Coastal Strand

3. Xeric Hammock

4. Maritime Hammock

5. Sandhill

6. Scrub

H. A determination of the existence, type, and extent of any Significant Natural Communities Habitat shall be made by the County Administrator in conjunction with appropriate state or federal agencies, by conducting an evaluation upon submission of an application for a Development Permit on all Development Parcels equal to or greater than ten (10) acres in size.

Sec. 4.01.08 Environmentally Sensitive Areas - Threatened or Endangered Species and Species of Special Concern

A. Intent and General Provision

1. This Section provides standards and guidelines for the protection of Threatened or Endangered Species or Species of Special Concern, hereinafter referred to as Listed Species in St. Johns County. It is intended that implementation of the provisions in this Section preserve Essential Habitat based on the species and their habitat needs, in order to maintain viable populations of the species.

2. Identification of Listed Species occurrences in St. Johns County shall be obtained from the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services for Conservation purposes and Development of wildlife corridors and Greenways.

B. Listed Species

1. Pursuant to policies of the Coastal/Conservation Element of the Comprehensive Plan, any Development which has the potential to endanger Florida manatee or Florida manatee habitat must first ensure compliance with all applicable Florida Department of Environmental Protection regulations before seeking a Development Permit.

2. All species of Marine Turtles which nest on the sand beaches fronting the Atlantic Ocean shall be protected from human interference including beach renourishment, beach front lighting, coastal Construction, mechanical beach clearing, and unregulated vehicular traffic during turtle Nesting Season, in accordance with

policies of the Coastal/Conservation Element of the Comprehensive Plan and Section 4.01.09 of this Part for beach lighting requirements.

3. To protect nesting Marine Turtles and their Hatchlings, the following activities are prohibited on the beach at sunset to sunrise during the Nesting Season (May 1 to October 31):

   a. Campfires or bonfires

   b. Any transient lighting, such as flashlights, torches, and gas lanterns, used to purposely illuminate nesting Marine Turtles or Hatchlings. This prohibition does not apply to individuals with appropriate Permits from federal and/or state agencies.

   c. Horseback riding on the beach during the Nesting Season shall be allowed only seaward of the most high-tide line on the beach during times when such riding is otherwise allowed.

   d. Permanent Marine Turtle information Signs shall be posted at all public and multi-family private beach access points provided with Dune crossovers by the persons or entities that control such beach access points (the “Property Owner”). The Signs shall be:

      (1) Standardized by the County.

      (2) Supplied by the County at cost to private Owner(s) requiring such Signs.

      (3) Installed so that they are conspicuous to persons accessing the beach at that particular point.

      (4) Maintained in perpetuity by the private Owner(s) such that information printed on the Signs remains legible and conspicuous to beach users.

   e. Removal of Marine Turtle information Signs by person(s) other than the applicable property Owner or his agent is prohibited.

4. Existing beach access points must comply with conditions of this Section within six (6) months of the effective date of this Code. New beach access points constructed after the effective date of this Code must comply with conditions of this Section prior to issuance of a Certificate of Occupancy or final Building approval, as applicable.

5. When a Listed Species Essential Habitat occurs onsite, the Developer shall protect the habitat by locating and designing proposed Improvements in coordination with the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services to minimize adverse impact to a viable animal or plant population, nesting pair, or nesting colony and to minimize adverse impact to Listed Species Essential Habitat. Onsite Conservation or mitigation requirements shall be established utilizing the

standards and guidelines of the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services. However, it is not the intent of this provision to preclude the reasonable use of a Lot or Parcel consistent with this Code.

6. The County Administrator shall conclude that a Listed Species Essential Habitat occurs onsite whenever a species or wildlife has been previously or currently documented to exist on said site by evaluation of the property using survey methodologies as approved by the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services. This conclusion shall be rebuttable upon a showing of clear and convincing evidence to the contrary.

7. Protection of a Listed Species Essential Habitat shall consist of Onsite Conservation or Offsite Conservation of the habitat, based on the animal or plant species habitat needs, and shall meet the provisions of Section 4.01.12 for Onsite Conservation or Section 4.01.13 for Offsite Conservation.

8. Pursuant to policies of the Coastal/Conservation Element of the Comprehensive Plan, St. Johns County shall work with the Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission, St. Johns River Water Management District, along with other applicable public and private agencies to develop a Greenways plan for the purpose of establishing wildlife corridors for Listed Species and the protection of Natural Communities Habitat or Essential Habitat, as well as providing passive recreational opportunities such as trails and canoeing. The Greenways Plan shall include the Development of a connected system of lands through one or more of the following areas: existing and future Conservation areas, Natural Preserves, federal and state owned Conservation and Preservation land, public or private greenways, rails-to-trails, and other appropriate areas.

Sec 4.01.09 Lighting Management For Protection Of Marine Turtles

This Section establishes a lighting management plan for the protection of Nesting Marine Turtles and their Hatchlings. The following are guidelines for the limitations of new and existing private and public exterior and interior lighting to minimize adverse effects on Marine Turtles.

A. Standards for New Construction

1. Exterior Light Fixtures on New Construction shall comply with the following requirements:

a. Except as otherwise permitted herein, the Point Source of Light or any reflective surface of a Light Fixture on New Construction must not be visible from any point on the surface of the beach and illumination of any area of the surface of the beach is prohibited.

b. All Light Fixtures that cast light on the beach shall be shielded, recessed, and/or louvered to avoid possible violation of this Section.

c. Low-profile Light Fixtures shall be low mounted through the use of bollards, ground level Light Fixtures, or low wall mounts, none of which shall be greater than forty-eight (48) inches from the ground or walkway surface.

d. Light Fixtures proposed for the seaward, north and south side of the property must be shielded low pressure sodium lamps of sixty (60) watts or less or bug light bulbs of twenty-five (25) watts or less, amber, orange or red SED lighting, or true red neon lighting.

e. Light Fixtures for purely decorative accent purposes shall not be used on the seaward, north and south side of a Beach property.

f. High intensity Light Fixtures, which may cast light on the beach, such as that proposed for Roadways, Parking Areas and similar applications shall utilize shielded or full cut-off low pressure sodium lamps or amber, orange or red LED lamps. The number of Light Fixtures shall be the minimum for human safety and shall be positioned and mounted in a manner such that the point source of light or any reflective surface of the Light Fixture is not visible from any point on the beach.

g. Parking Areas and Roadways, including any paved or unpaved area upon which motorized vehicles will operate, shall be designed and positioned such that vehicular headlights do not directly Illuminate the Beach or cast light toward or onto the surface of the beach. Hedges, native Dune vegetation, and/or other ground-level barriers may be utilized to meet this objective.

h. Notwithstanding other provisions of this Code, during Construction, temporary security lighting during the Marine Turtle Nesting Season is strongly discouraged. Such security lights shall be shielded and limited to the minimum number and configuration necessary to achieve functional role(s) using low-profile Light Fixtures. Low pressure sodium vapor lamps, low wattage yellow bug lights (25 watts or less), or amber, orange or red LED lamps shall be utilized for this purpose. Under no circumstances shall these lights Directly, Indirectly or Cumulatively Illuminate any area of the surface of the beach.

i. It is strongly advised that Tinted Glass or Window Film shall be utilized on all windows and glass doors visible from any point on the surface of the beach.

B. Prior to the issuance of a final County approval or Certificate of Occupancy, for any Improvement on beach front property, compliance with the beach-front lighting standards set forth in this Code shall be approved as follows:

1. Prior to receiving a Building Permit for installation of any exterior Light Fixtures which are visible from the beach, the Applicant must obtain approval that the exact type of exterior Light Fixtures to be used complies with this Code.

2. Upon completion of New Construction activities the Permit holder shall request a Night survey of the site with all Light Fixtures turned on.

3. The Night survey shall include inspection findings in writing identifying:

   a. The date and time of the inspection.

   b. The extent of compliance with the lighting standards.

   c. All areas of observed non-compliance, if any.

4. A copy of the inspection findings shall be delivered to the Permit holder.

C. Guidelines for existing Development, including publicly owned lighting.

Permanent exterior Lighting Fixtures on existing Structures installed prior to the effective date of this Code and which create Direct, Indirect, or Cumulative Beach Illumination of the surface of the beach shall be considered as existing Development and the regulations set forth in this Section shall be met to achieve the purpose of this Code.

D. All existing exterior artificial Light Fixtures associated with existing Structures shall meet the following standards during Night hours during Nesting Season each year.

1. No Point Source of Light or any reflective surface of the Light Fixture shall be visible from any point on the surface of the beach.

2. Illumination of any area of the surface of the Beach through Direct or Indirect Illumination is prohibited.

3. Light Fixtures shall have Direct or Indirect Illumination completely shielded from the Beach and shall have non-reflective interior surfaces. Other Light Fixture types that have appropriate shields, louvers, or full cut-off features may also be used if in compliance with this Section.

E. Exterior Light Fixtures, associated with existing Structures, that do not comply with criteria set forth in this Section, shall be modified from May 1st to October 31st each year with one (1) or a combination of the options listed below as necessary to rectify situations not complying with this Section.

1. Reposition the Light Fixture so the Point Source of Light or any reflective surface of the Light Fixture is no longer visible from the surface of the beach.

2. Replace Light Fixtures having an exposed Point Source of Light with Light Fixtures containing recessed, shielded, and/or louvered point sources.

3. Replace all exterior light bulbs with amber, orange, or red colored LED bulbs (25 watts or less), low pressure sodium bulbs, or true red neon lighting.

4. Replace non-directional Light Fixtures with full cut-off Light Fixtures that point down and away from the Beach.

5. Replace Light Fixtures having transparent or translucent coverings with Light Fixtures having opaque shields covering an arc of at least one hundred eighty

(180) degrees and extending below the bottom edge of the Light Fixture so the Point Source of Light or any reflective surface of the Light Fixture is not visible from the surface of the Beach.

6. Replace pole lights with low-profile, low-level, shielded Light Fixtures so that the Point Source of Light or any reflective surface of the Light Fixture is not visible from the surface of the Beach.

7. Replace incandescent, fluorescent and high intensity lighting with the lowest wattage low-pressure sodium vapor lamps possible for the specific application.

8. Plant or improve vegetation buffers between the Light Fixtures and the Beach to screen light from the surface of the Beach.

9. Construct a ground-level barrier to shield the Point Source of Light from the Beach. Ground-level barriers must not interfere with Marine Turtle nesting, or Hatchling emergence, or cause short or long term damage to the Beach/Dune system.

10. Permanently Remove or disable any Light Fixture which cannot be brought into compliance with these standards.

F. Security lighting

Nothing in this Section is intended to or shall limit or discourage the use of flood lights or spot lights of any color activated by motion of a person or vehicle on the property. Any such light shall provide illumination for a period not to exceed five (5) minutes each time motion is detected by it.

G. Interior Lighting

One (1) or more of the following measures shall be used as necessary to reduce direct, indirect and cumulative beach illumination resulting from the interior light emanating from doors and windows within line-of-sight of the beach from May 1st to October 31st each year during Night hours.

1. Apply Window Tint or Film that meets the standards for Tinted Glass.

2. Rearrange lamps and other moveable Light Fixtures away from windows.

3. Use Window Treatments to shield interior lights from the Beach and, during the Nesting Season, draw operable coverings each Night; and/or

4. Turn off unnecessary lights.

H. Cumulative Beach Illumination

Extensive Development with many light sources scattered over a relatively large area, or intense lighting from facilities may result in Cumulative Beach Illumination. Cumulative Beach Illumination shall be corrected through a reduction in the number, decrease in height or the shielding of the Light Fixtures or other provisions as set forth in this Section. Compliance with this Section may be approved by the County Administrator.

I. Transient Lighting

Any transient lighting, such as flashlights, torches, and gas lanterns, which purposely Illuminates nesting Marine Turtles or Hatchlings so that it disrupts their behavior patterns is prohibited. This prohibition does not apply to individuals with appropriate permits from federal and/or state agencies.

J. Recreational Facilities

Recreational Facilities shall follow the requirements of Section 6.09.02.G and may not result in Cumulative Beach Illumination.

K. Compliance Inspections, Penalties and Enforcement

Night-time lighting inspections from the beach shall be conducted at the beginning of each Marine Turtle Nesting Season at least monthly during the Nesting Season to determine compliance or violations of this Section. Enforcement procedures shall be pursuant to Part 10.05.00 of this Code.

Sec. 4.01.10 Habitat Management For The Bald Eagle

For the purposes of this Section the U.S. Fish and Wildlife Service will henceforward be known as USFWS and the Florida Fish and Wildlife Conservation Commission will henceforward be known as FWC.

A. Intent

The intent of this section is to maintain and/or improve the environmental conditions that are required for the survival and well-being of the Bald Eagle (*Haliaeetus leucocephalus)* in St. Johns County by minimizing potential detrimental impacts on Bald Eagles particularly during the nesting season defined as October 1 to May 15.

B. Management Zones

This section provides Management Zones with prohibitions and standards for the protection of the Bald Eagle in St. Johns County. Limitations of activities that are allowed in the Management Zones around Bald Eagle nest trees are to minimize the adverse effects on Bald Eagles.

1. Primary Zone: This is the most critical area and must be maintained to promote acceptable conditions for Bald Eagles. The Primary Zone shall be an undisturbed area extending in a minimum radius seven hundred fifty (750) feet outward from the nest tree. This area shall be designated Bald Eagle Primary Zone on all Development or Construction plans.

    a. To protect Bald Eagles the following activities shall be prohibited in the Primary Zone at all times throughout the year except as provided for in Sections 4.01.10.C and D:

(1) Residential, commercial or industrial Development including but not limited to Buildings, Accessory Uses, roads, sidewalks, bike paths, trails, and recreation areas.

(2) The platting of Lots into the Primary Zone except for the platting of open space. Open space includes buffers, common areas, Environmentally Sensitive Areas, Significant Natural Communities Habitat, Conservation areas, preservation areas and similar areas.

(3) Land Clearing, Tree Removal, logging, Construction or mining activity except as provided for in section (6) below or Section 4.01.10.D.4.

(4) The use of chemicals which are toxic to wildlife.

(5) The shining of search lights or spotlights into the Primary Zone unless necessary at the request of and in the aid of emergency service personnel.

(6) Unauthorized human entry. Both the County Administrator and the property Owner (which may be the homeowners association) shall approve authorization of entry into the Primary Zone. Appropriate personnel for entry may include forestry personnel, emergency service personnel or other personnel deemed appropriate by the County Administrator, the FWC and the USFWS. Activities which allow entry into the Primary Zone shall be limited to:

- Emergency service personnel responding to an emergency call. Emergency Service personnel shall not require prior approval for entry into the Primary Zone.
- Activities related to management of the Primary Zone for Bald Eagle protection.
- Activities related to habitat and vegetation maintenance necessary to maintain the habitat quality or reduce the risk of fire.

2. Secondary Zone: Restrictions in this zone are needed to minimize disturbance that might compromise the integrity of the Primary Zone and to protect important areas outside the Primary Zone. The Secondary Zone shall be an area extending outward from the boundary of the Primary Zone a minimum distance of seven hundred fifty (750) feet.

a. To protect Bald Eagles the following standards shall be required in the Secondary Zone at all times except as provided for in Sections 4.01.10.C. and D:

(1) Construction shall be limited to single family housing and approved Accessory Uses. No multifamily, office, commercial, or industrial Development shall be permitted.

(2) No Building of a height greater than thirty-five (35) feet.

(3) Lots shall be seven thousand five hundred (7,500) square feet or larger.

(4) The use of chemicals which are toxic to wildlife.

(5) Retaining trees greater than 20 feet in height, particularly pine trees, shall be encouraged.

b. To protect Bald Eagles the following standards shall be required in the Secondary Zone at all times during nesting season except as provided for in Sections 4.01.10.C and D.

(1) No Land Clearing or Tree Removal except as provided for in Section 4.01.10.D.4.

(2) No installation of utilities, stormwater control systems, septic systems, roads, slabs, Building Pads, pools, drilling, digging, grading, or placing forms.

(3) The following exterior work is prohibited:

- Structural wood, concrete block or concrete framing.
- Installation of structural wall sheathing, Building paper or exterior siding that requires impact tools.
- Roof truss erection, roof framing, roof sheathing, roof dry-in, roof shingles or tiles.
- Installation of fencing or decks which are installed using impact tools.

(4) Minimal hand clearing (no power or power assisted equipment) as necessary for surveying is allowed.

(5) The number of Light Fixtures proposed for roadways shall be the minimum for human safety and shall be positioned and mounted in a manner such that the point source of light or any reflective surface of the Light Fixture is the least intrusive into the Primary Zone.

(6) Sound or noise, which exceeds the County noise standards, measured at the base of the nest tree, is prohibited. The intent of this standard is to decrease the loud and abrupt noise associated with some types of Construction activities.

C. Additional Considerations

1. If a Bald Eagle nest is documented to be either unused by a Bald Eagle on or after December 1 or abandoned by a Bald Eagle for thirty (30) consecutive Days on or after December 1, Construction otherwise prohibited in 4.01.10.B.2 may resume in the Secondary Zone if approved by the Board of County Commissioners, the FWC and the USFWS. Documentation shall be provided by personnel approved by the County Administrator, the FWC and the USFWS. The following conditions shall be followed:

    a. Monitoring of the Bald Eagle nest shall be required upon initiation of Construction and shall be conducted by an Approved Monitor approved by the County Administrator, the FWC and the USFWS. The Developer of the property shall be responsible for providing the Approved Monitor.

    b. Monitoring of the Bald Eagle nest shall be conducted a minimum of two (2) hours per day throughout Construction activities at such times and at such locations as the Approved Monitor may determine appropriate based upon existing conditions.

    c. Approved Monitors shall promptly submit a written report to the County Administrator, the FWC and the USFWS if the behavior activities of a Bald Eagle may indicate that the nest is being selected for use.

    d. Upon determination by the County Administrator, the FWC and the USFWS that a nest has been selected by a Bald Eagle for nesting the provisions of Section 4.01.10.B.2 shall once again be enforced.

2. If on May 15 a Bald Eagle nest remains in use by a Bald Eagle's nestling or fledgling the provision of Section 4.01.10.B.2 shall remain in effect until such time that it is documented that the Bald Eagle is self-sufficient and the nest is vacated. This documentation of self-sufficiency shall include information concerning the ability of the Bald Eagle to hunt or collect food on its own and shall be provided by personnel approved by the County Administrator, the FWC and the USFWS. Upon approval by the Board of County Commissioners, the FWC and the USFWS that the Bald Eagle has vacated the nest, Construction otherwise prohibited in Section 4.01.10.B.2 may resume in the Secondary Zone.

3. If a Bald Eagle nest is documented to be unused for a period of five (5) consecutive nesting seasons it may be requested that the nest be declared abandoned. Personnel approved by the USFWS, the FWC and the County Administrator shall document abandonment. The Board of County Commissioners, the USFWS and the FWC must approve the request for abandonment. Following abandonment, any activity in the Primary or Secondary Zones shall be at the direction of the USFWS and the FWC. If an abandoned nest is reoccupied by a Bald Eagle the provisions of Section 4.01.10 shall then apply.

4. An alternative site specific Bald Eagle Management Plan may be developed for a Bald Eagle nest. Any requested change to Section 4.01.10 shall be subject to approval by the Board of County Commissioners. The protection standards in the site specific Bald Eagle Management Plan shall provide Bald Eagle protection equal to or better than the protection provided in Section 4.01.10. The applicant

has the burden of demonstrating reasonable assurance that such protection is provided.

5. If a new (not previously or historically documented) Bald Eagle nest is identified on undeveloped land of an approved Subdivision, DRI, PUD, PRD or any other zoning allowing for Development, the Development of the land shall proceed in accordance with one of the following:

   a. Conformance with the standards and guidelines of Section 4.01.10.

   b. Provide an alternative site specific Bald Eagle Management Plan. Any requested change to Section 4.01.10 Management Zones standards and guidelines shall be subject to approval by the Board of County Commissioners.

   c. Request a Vesting determination as provided for in Section 10.02.03. A Vesting determination does not abrogate any legal requirement to comply with the regulations of any other governmental agency, local, state or federal, which may have jurisdiction over the proposed activity upon the land.

6. A Construction permit issued on or after June 1 may be subject to a stop work order if the Construction cannot be completed prior to October 1.

7. No person shall take, pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb any Bald Eagle, alive or dead, or any part, nest, or egg thereof as required by Chapter 68A-27, Florida Administrative Code.

D. Exceptions

1. The terms of Section 4.01.10 shall not apply to a Bald Eagle nest if the nest has a Bald Eagle Management Plan approved by the Board of County Commissioners prior to the effective date of this Section and all activities have been in compliance with the approved plan.

2. The terms of Section 4.01.10 shall not apply to those Land Alteration activities which are normal and necessary to conduct Bona Fide Agricultural and Silvicultural Operations but shall follow Bald Eagle protection requirements as established by the FWC and the USFWS for these activities.

3. If a residential structure is damaged or destroyed during or following high winds, violent storms, hurricanes, tornadoes, floods, fires or other natural disasters immediate emergency action necessary to provide for public safety may take place in the Secondary Zone during nesting season. The County Administrator shall be notified of any emergency actions taken. Further, repair or replacement of the damaged or destroyed residential structure may take place in the Secondary Zone during nesting season. All Construction shall be approved by the County and be in accordance with all County requirements and with the Land Development Code.

4. If a Lot is damaged during or following high winds, violent storms, hurricanes, tornadoes, floods, fires or other natural disasters the minimum immediate

emergency action necessary to provide for public safety may take place in the Secondary Zone during nesting season. The County Administrator shall be notified of any emergency actions taken.

5. The terms of Section 4.01.10 shall not apply to those activities or conditions that were documented to exist in a Primary or Secondary Zone prior to the Bald Eagle nest or prior to the effective date of this ordinance. Prior to applying this exemption, the County Administrator shall review all activities proposed to be designated as preexisting and shall approve only those activities determined to be preexisting.

6. The terms of Section 4.01.10 shall not apply to a Lot of Record lying within a County required bald eagle protection zone providing the Lot was recorded prior to the existence of the bald eagle nest. The Lot of Record shall be required to follow state and federal standards and guidelines that regulate Development activities with regard to bald eagle protection and the County shall review for compliance with these state and federal standards and guidelines prior to the issuance of a Building Permit.

E. Waivers

1. The Board of County Commissioners may grant site-specific waivers to the provisions in Section 4.01.10. B, C and D or any part thereof to the limited extent necessary:

a. To prevent a County taking of private property, or a claim under Section 70.11, Florida Statutes, by action of those provisions that are compensable to the landowner under the law of the State of Florida and the United States of America; or

b. Based upon a finding of vesting for the project under the provision of Section 10.02.03 of the Land Development Code; or

c. Based upon the applicant providing an alternate Eagle Management Plan being approved by the Board of County Commissioners; or

d. To prevent a substantial burden being experienced by a property Owner for a delay that would result in stopping Construction through the nesting season; or

e. Based upon a finding that Construction on a residential structure is substantially complete prior to October 1 but due to minor additional Construction activities needed the completion of Construction cannot be accomplished prior to October 1. Minor activities shall be those activities that can be complete no later than thirty (30) Days following approval of the variance.

Sec. 4.01.11 Environmentally Sensitive Areas - Coastal Conservation

A. These regulations are in addition to all other regulations in this Code dealing with Development and Conservation in Coastal Areas. In addition, all Development within Coastal Areas in St. Johns County shall comply with regulations in Chapter 161, F.S.,

Coastal Protection, and the Florida Department of Environmental Protection regulations regarding Construction within the Coastal Construction Control Line.

B. Development within Coastal Areas shall meet the standards and requirements for Roadway, Drainage, and Utilities Standards in Part 6.04.00 and Flood Damage Control Regulations in Part 3.03.00.

C. It is the intent of St. Johns County, pursuant to policies of the Coastal/Conservation Element of the Comprehensive Plan, to protect the County's Coastal barrier areas, Dunes, and beaches to avoid or minimize Development seaward of the Coastal Construction Control Line.

D. Seawalls and other shoreline modifications shall be set at, or landward of, the mean high Water Line, except as provided by Chapter 161, F.S. The County and other agencies in compliance with Chapter 161, F.S., shall coordinate in establishing appropriate setbacks.

E. In accordance with the provisions of applicable Utility ordinances and the requirements of this Code, users of septic tank systems shall be required to connect to public or private sewer systems once service becomes available in that area.

F. Dredge and Fill

In accordance with policies of the Coastal/Conservation Element of the Comprehensive Plan:

1. The Construction of canals and man-made waterways shall not commence construction until all federal and state Permits have been acquired.

2. All approved dredge and fill activities within the Coastal Area shall meet or exceed all applicable federal, state, and local drainage and floodplain standards.

3. All dredge spoil material shall be placed on suitable disposal sites approved by all agencies with jurisdiction.

4. Approved Best Management Practices, published by the Florida Department of Environmental Protection or the St. Johns River Water Management District shall be used before, during and after Construction to reduce siltation and erosion.

G. Public Beach Access

1. The County shall not vacate or relocate existing Rights-of-Way, Easements, walkways, and other access points to beaches, shores and waterways, without requiring the grant or dedication of equal or greater access points or Easements, pursuant to policies of the Coastal/Conservation Element of the Comprehensive Plan.

2. Private property Owners adjacent to public beach access points, including Easements, shall not be allowed to restrict public access to the beaches through such access points.

3. The County shall protect the accessibility of public beach access points and Easements pursuant to policies of the Recreation and Open Space Element of the Comprehensive Plan.

Sec. 4.01.12 Natural Preserves

For any rezoning or change in the Future Land Use Map designation on property adjacent to a publicly owned or private, nonprofit Natural Preserve or Conservation area, the County shall consider the compatibility of the requested change with the function, operation, and management of the Natural Preserve or Conservation area. The County shall seek the recommendations of the managing agency or private-nonprofit organization holding title to the land prior to the rezoning or Comprehensive Plan change.

Sec. 4.01.13 Onsite Conservation

A. Site Selection

Where alternative Onsite Conservation sites exist within a Development, the site or sites selected for Onsite Conservation shall be the best suited to likely maintain a viable habitat. The selection shall consider the following factors:

1. Ability to protect and manage the site.

2. The size and shape of the site. Emphasis should be on not creating enclaves of Development or areas fragmented by Development.

3. The contiguity of the site with Significant Natural Communities Habitat or Essential Habitat offsite.

4. The existing species population sizes at the site.

5. The life history requirements of the species involved.

6. The proximity and accessibility of the site to other populations of the same species.

7. The compatibility of Conservation of the site with adjacent land Uses.

B. Conservation methods

1. Onsite Conservation shall be accomplished through the designation of the site as Conservation Area on all Development Plans and plats.

2. The site or sites selected for Onsite Conservation of Essential Habitat shall meet the guidelines and requirements of the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services which shall be determinative of compliance with the requirements of this Section 4.01.12 for Essential Habitat.

3. A landowner may request that St. Johns County accept a transfer of title (by sale or donation) for the conserved area or a dedication of a Conservation Easement

over the area provided that any Conservation Easement offered by the property Owner meets the requirements of Section 704.06, F.S.

Sec. 4.01.14 Offsite Conservation

The Offsite Conservation requirement may be fulfilled either directly by conserving land offsite or indirectly by contributing to an Offsite Conservation land bank, as provided below:

A. In-kind Conservation

1. Offsite Conservation sites shall be the same type of habitat or land which can be restored to the same type of habitat as the natural community, Listed Species, or Essential Habitat being adversely impacted onsite by Development.

2. Offsite Conservation sites for the different habitats shall be biologically manageable and appropriate for the Significant Natural Communities Habitat, Listed Species, Essential Habitat requiring protection, or land which can be restored to such habitat. An Offsite Conservation site for Significant Natural Communities Habitat shall be acre-for-acre compensation for the habitat being adversely impacted on-site by Development, unless a deviation is approved by the County Administrator for the preservation of higher quality habitat off-site than is impacted by Development on-site.

B. Site Selection

1. The location of Offsite Conservation sites shall be within St. Johns County.

2. Offsite Conservation sites for Essential Habitat shall meet all appropriate acquisition Conservation restoration habitat suitability, manageability, size and other provisions as established pursuant to the guidelines of the Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, and Florida Department of Agriculture and Consumer Services which shall be determinative for purposes of establishing Offsite Conservation requirements pursuant to this Section 4.10.13 for Essential Habitat.

C. Conservation Methods

1. Offsite Conservation sites shall be for the purpose of restoring (if applicable), conserving, and maintaining natural areas in perpetuity.

2. The Developer shall meet the Offsite Conservation acreage requirement through one (1) of the following methods:

a. Land Acquisition

The Developer may acquire and transfer fee simple title of an appropriate Offsite Conservation site to St. Johns County, a land Conservation governmental agency, or a private, non-profit land Conservation organization.

b. Contribution to an Offsite Conservation land bank

The Developer may contribute to an Offsite Conservation land bank based upon the land bank's actual cost of acquiring in-kind Conservation lands, plus cost of restoration, if any, plus estimated total cost of management during the life of the land bank, divided by applicable acreage, multiplied by the carrying costs.

c. Conservation Easement

The Developer may acquire through fee simple purchase an appropriate Offsite Conservation site and establish a Conservation Easement in favor of St. Johns County or other land Conservation governmental agency or private, non-profit land Conservation organization in accordance with the requirements of Section 704.06, F.S. When a Developer chooses this option, a Management Plan shall be developed in cooperation with the property Owner which stipulates the limitations on the Use of the land and identifies the habitat management activities and assignments of responsibility.

D. Timing

The Development Permit shall specify the acreage and location of the Offsite Conservation site, the cost and timing of any monetary contributions or offsite acquisitions, the ownership and party responsible for management of the Offsite Conservation site, the location of any onsite Development, including Land Alteration and Construction activities; and shall contain a requirement that any Significant Natural Communities Habitat, Species, or Essential Habitat on the Project site, for which Offsite Conservation is being provided, shall not be disturbed or adversely impacted prior to meeting the Offsite Conservation requirements.

Sec. 4.01.15 Procedures

A. Generally

A Development Permit shall be applied for and reviewed pursuant to the Procedure for Issuance of Development Permits in Part 9.01.00, subject to the following:

1. For any Parcel containing a Wetland, Estuary, Natural Water Body, Significant Natural Communities Habitat, or Essential Habitat, no Development Permit shall be issued until the application has also been reviewed and approved in accordance with this Article.

2. To review an application, the County Administrator, in coordination with applicable federal or state agencies, shall conduct onsite inspections, except in cases where adequate information is available to preclude an onsite inspection.

3. Where Trees are located within any Conservation Area, where Land Alteration and Construction activities are proposed, the Rights-of-Way or centerlines of proposed roads, the corners of proposed Buildings, and the locations of proposed stormwater retention or detention basins, man-made lakes, areas that require fill, and other Improvements shall be rough staked upon submittal of the application

and prior to any onsite inspection. If, upon inspection, roads, Buildings, fill areas, and other Improvements have not been identified, the review shall be suspended until these preparations have been completed.

4. Upon review of the complete application, the County Administrator shall approve, approve with conditions, or deny a Development Permit based upon whether the proposal is in compliance with these Regulations and is necessary for one (1) or more of the following reasons:

   a. Construct Improvements consistent with proper Development or proper physical Use of a Lot or Parcel pursuant to the requirements of this Code.

   b. For access to a Lot or Parcel or Construction equipment access to and immediately around proposed Structures or other Improvements.

   c. For essential grade changes or essential surface water drainage or Utility installations.

   d. Comply with other ordinances, regulations, or codes of St. Johns County.

   e. For the welfare of the general public for reasons other than those set forth above.

5. In the event the Development Permit is denied, the County Administrator shall notify the Applicant in writing stating specifically the reasons for denial.

6. The Development Permit shall not be issued until Tree Protection Barricades have been erected around all Trees to be retained within the area where Land Alteration or Construction activities are to occur and, where required, around other vegetation to be preserved. Tree Protection Barricades shall remain in place until Land Alteration and Construction activities are completed, or until commencement of grade finishing and sodding.

7. A Development Permit issued for a land Development Project shall limit Land Alteration activities to approved fill areas, road Rights-of-Way, and drainage and Utility Easements and Rights-of-Way, unless otherwise authorized. A separate Lot Grading and/or Building Permit shall be required to undertake Land Alteration activity on individual residential Lots containing Trees or other vegetation.

8. If appropriate, the following requirements shall be addressed through Permit conditions:

   a. Hauling of Excavated material shall not adversely impact public roads and bridges located along the haul route. The County Administrator shall require the Owner of the land from which material is to be Excavated to construct a paved exit/entry apron at the point of access to a public road if such an apron is needed to protect the road from damage.

   b. Trucks hauling Excavated material on a public road shall be covered and their tailgates securely latched to minimize dust. The Owner of the land

from which material is being Excavated shall maintain in a satisfactory condition any dirt road segment of the designated haul route.

c. The County Administrator shall impose reasonable restrictions on the hours and Days of hauling operations when such restrictions are necessary to protect the public health, safety and welfare.

B. Submittals

The application for a Development Permit shall contain information as prescribed in the Development Review Manual.

C. Permit Compliance

1. A copy of the Development Permit or Development Order shall be posted onsite during Land Alteration activities.

2. The County Administrator may conduct periodic inspections of the site to determine compliance with the Development Permit or Development Order.

3. No Certificate of Completion or Certificate of Occupancy, if required, shall be issued until the County Administrator has determined upon final inspection that the Land Alteration activity was undertaken according to the approved plan and the Development Permit or Development Order, if required.

4. Any Tree planted in accordance with these regulations shall be replaced by the current property Owner if the Tree dies. DBH inch-for-inch replacement shall be provided.

D. Permit Duration and Extension

A Development Permit or Development Order shall be effective for a period of two (2) years after issuance unless otherwise specified on the Permit. A two (2) year Permit extension may be granted by the County Administrator within thirty (30) Days after receipt of a written request indicating why an extension is necessary and upon the County Administrator's review of the Project's work schedule, progress and compliance with Part 4.01.00 of this Code. Any Permit not used within the prescribed time limit shall become void and future work shall require a new application.

History: Ord. 1999-60; Ord. 2000-24; Ord. 2001-39; Ord. 2001-63; Ord. 2002-42; Ord. 2005-20; Ord. 2005-118; Ord. 2006-66; Ord. 2006-123; Ord. 2009-2; Ord. 2009-28; Ord. 2012-2; Ord. 2012-23; Ord. 2013-26; Ord. 2015-14; Ord. 2017-17; Ord. 2020-23; Ord. 2022-57

Attachment 7
Executed FCSA

AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
ST. JOHNS COUNTY, FLORIDA
FOR THE
ST. JOHNS COUNTY, FLORIDA
COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY
(NORTH PONTE VEDRA BEACH)

THIS AGREEMENT is entered into this 19th day of April, 2021, by and between the Department of the Army (hereinafter the "Government"), represented by the District Commander for Jacksonville District (hereinafter the "District Commander") and St. Johns County, Florida (hereinafter the "Non-Federal Sponsor"), represented by the Chair of its Board of County Commissioners.

WITNESSETH, THAT:

WHEREAS, a June 21, 2000, resolution adopted by the Committee on Transportation and Infrastructure of the United States House of Representatives (House Resolution 2646), in accordance with Section 110 of the River and Harbor Act of 1962, Public Law 87-874, authorizes the Secretary of the Army, acting through the Chief of Engineers, to survey the shores of North Ponte Vedra Beach, St. Johns County, Florida, with particular reference to the advisability of providing beach erosion control works, as may be necessary in the interest of hurricane protection, storm damage reduction, beach erosion control, and other related purposes;

WHEREAS, Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a)), specifies the cost-sharing requirements; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS

A. The term "Study" means the activities and tasks required to identify and evaluate alternatives and the preparation of a decision document that, as appropriate, recommends a coordinated and implementable solution for coastal storm risk management at North Ponte Vedra Beach, St. Johns County, Florida.

B. The term "shared study costs" means all costs incurred by the Government and Non-Federal Sponsor after the effective date of this Agreement that are directly related to performance of the Study and cost shared in accordance with the terms of this Agreement. The term includes, but is

not necessarily limited to, the Government's costs for preparing the PMP; for plan formulation and evaluation, including costs for economic, engineering, real estate, and environmental analyses; for preparation of a floodplain management plan if undertaken as part of the Study; for preparing and processing the decision document; for supervision and administration; for Agency Technical Review and other review processes required by the Government; and for response to any required Independent External Peer Review; and the Non-Federal Sponsor's creditable costs for in-kind contributions, if any. The term does not include any costs for dispute resolution; participation by the Government and Non-Federal Sponsor in the Study Coordination Team to discuss significant issues and actions; audits; an Independent External Peer Review panel, if required; or negotiating this Agreement.

C. The term "PMP" means the project management plan, and any modifications thereto, developed in consultation with the Non-Federal Sponsor, that specifies the scope, cost, and schedule for Study activities and tasks, including the Non-Federal Sponsor's in-kind contributions, and that guides the performance of the Study.

D. The term "in-kind contributions" means those planning activities (including data collection and other services) that are integral to the Study and would otherwise have been undertaken by the Government for the Study and that are identified in the PMP and performed or provided by the Non-Federal Sponsor after the effective date of this Agreement and in accordance with the PMP.

E. The term "maximum Federal study cost" means the $1,500,000 Federal cost limit for the Study, unless the Government has approved a higher amount.

F. The term "fiscal year" means one year beginning on October 1st and ending on September 30th of the following year.

ARTICLE II - OBLIGATIONS OF THE PARTIES

A. In accordance with Federal laws, regulations, and policies, the Government shall conduct the Study using funds appropriated by the Congress and funds provided by the Non-Federal Sponsor. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations.

B. The Non-Federal Sponsor shall contribute 50 percent of the shared study costs in accordance with the provisions of this paragraph and provide required funds in accordance with Article III.

1. No later than 15 calendar days after the effective date of this Agreement, the Non-Federal Sponsor shall provide funds in the amount of $25,000, for the Government to initiate the Study, including preparation of the PMP. In the event more funds are needed to develop the PMP, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor, and no later than 15 calendar

days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government.

2. As soon as practicable after completion of the PMP, and after considering the estimated amount of credit for in-kind contributions, if any, that will be afforded in accordance with paragraph C. of this Article, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor to meet its share of shared study costs for the remainder of the initial fiscal year of the Study. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government.

3. No later than July 1st prior to each subsequent fiscal year of the Study, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year to meet its cost share. No later than October 1st or, if October 1st falls on a Saturday or Sunday, the next business day thereafter, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government.

C. The Government shall include in shared study costs and credit towards the Non-Federal Sponsor's share of such costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind contributions, including associated supervision and administration. Such costs shall be subject to audit in accordance with Article VI to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

1. As in-kind contributions are completed and no later than 60 calendar day after such completion, the Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit. The amount of credit afforded for in-kind contributions shall not exceed the Non-Federal Sponsor's share of shared study costs less the amount of funds provided pursuant to paragraph B.1. of this Article.

2. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind contributions are completed and credit is afforded; for the value of in-kind contributions obtained at no cost to the Non-Federal Sponsor; for any items provided or performed prior to completion of the PMP; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

D. To the extent practicable and in accordance with Federal laws, regulations, and policies, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on solicitations for contracts prior to the Government's issuance of such solicitations; proposed contract modifications, including change orders; and contract claims prior to resolution thereof. Ultimately, the contents of solicitations, award of contracts, execution of contract

modifications, and resolution of contract claims shall be exclusively within the control of the Government.

E. The Non-Federal Sponsor shall not use Federal program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Study. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

F. Except as provided in paragraph C. of this Article, the Non-Federal Sponsor shall not be entitled to any credit or reimbursement for costs it incurs in performing its responsibilities under this Agreement.

G. If Independent External Peer Review (IEPR) is required for the Study, the Government shall conduct such review in accordance with Federal laws, regulations, and policies. The Government's costs for an IEPR panel shall not be included in shared study costs or the maximum Federal study cost.

H. In addition to the ongoing, regular discussions of the parties in the delivery of the Study, the Government and the Non-Federal Sponsor may establish a Study Coordination Team to discuss significant issues or actions. The Government's costs for participation on the Study Coordination Team shall not be included in shared study costs, but shall be included in calculating the maximum Federal study cost. The Non-Federal Sponsor's costs for participation on the Study Coordination Team shall not be included in shared study costs and shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

ARTICLE III - PAYMENT OF FUNDS

A. As of the effective date of this Agreement, shared study costs are projected to be $3,000,000, with the Government's share of such costs projected to be $1,500,000 and the Non-Federal Sponsor's share of such costs projected to be $1,500,000. These amounts are estimates only that are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Government shall provide the Non-Federal Sponsor with monthly reports setting forth the estimated shared study costs and the Government's and Non-Federal Sponsor's estimated shares of such costs; costs incurred by the Government, using both Federal and Non-Federal Sponsor funds, to date; the amount of funds provided by the Non-Federal Sponsor to date; the estimated amount of any creditable in-kind contributions; and the estimated remaining cost of the Study.

C. The Non-Federal Sponsor shall provide to the Government required funds by delivering a check payable to "FAO, USAED, Jacksonville (K3)" to the District Commander, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest

accruing to the Non-Federal Sponsor, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

D. The Government shall draw from the funds provided by the Non-Federal Sponsor to cover the non-Federal share of shared study costs as those costs are incurred. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's required share of shared study costs, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional funds.

E. Upon completion of the Study and resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds. Should the final accounting determine that the Non-Federal Sponsor has provided funds in excess of its required amount, the Government shall refund the excess amount, subject to the availability of funds. Such final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of shared study costs, including contract claims or any other liability that may become known after the final accounting.

ARTICLE IV - TERMINATION OR SUSPENSION

A. Upon 30 calendar days written notice to the other party, either party may elect at any time, without penalty, to suspend or terminate future performance of the Study. Furthermore, unless an extension is approved by the Assistant Secretary of the Army (Civil Works), the Study may be terminated if a Report of the Chief of Engineers, or, if applicable, a Report of the Director of Civil Works, is not signed for the Study within 3 years after the effective date of this Agreement.

B. In the event of termination, the parties shall conclude their activities relating to the Study. To provide for this eventuality, the Government may reserve a percentage of available funds as a contingency to pay the costs of termination, including any costs of resolution of contract claims, and resolution of contract modifications.

C. Any suspension or termination shall not relieve the parties of liability for any obligation incurred. Any delinquent payment owed by the Non-Federal Sponsor pursuant to this Agreement shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13 week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3 month period if the period of delinquency exceeds 3 months.

ARTICLE V - DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VI - MAINTENANCE OF RECORDS AND AUDIT

A. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

B. The Government may conduct, or arrange for the conduct of, audits of the Study. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Study shall not be included in shared study costs, but shall be included in calculating the maximum Federal study cost.

C. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsor, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

ARTICLE VII - RELATIONSHIP OF PARTIES

In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

ARTICLE VIII - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by certified mail, with return receipt, as follows:

If to the Non-Federal Sponsor:

Chair
St. Johns County Board of County Commissioners
500 San Sebastian View
St. Augustine, Florida 32084

If to the Government:

District Commander
U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, Florida 32232-0019

B. A party may change the recipient or address for such communications by giving written notice to the other party in the manner provided in this Article.

ARTICLE IX - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE X - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Commander.

DEPARTMENT OF THE ARMY

BY: KELLY.ANDREW.DONALD.JR.1025510875 Digitally signed by KELLY.ANDREW.DONALD.JR.10255 10875 Date: 2021.04.19 11:15:26 -04'00'

Andrew D. Kelly, Jr.
Colonel, U.S. Army
District Commander

DATE: _____

ST. JOHNS COUNTY, FLORIDA

BY: Digitally signed by Jeremiah Ray Blocker Date: 2021.04.15 16:35:25 -04'00'

Jeremiah Ray Blocker
Chair
Board of County Commissioners

DATE: April 15, 2021

CERTIFICATE OF AUTHORITY

I, Patrick McCormack, do hereby certify that I am the principal legal officer for the St. Johns County, Florida, that the St. Johns County, Florida is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the St. Johns County, Florida in connection with the St. Johns County, Florida Coastal Storm Risk Management Feasibility Study (North Ponte Vedra Beach), and to pay damages, if necessary, in the event of the failure to perform in accordance with the terms of this Agreement, as required by Section 221 of Public Law 91-611, as amended (42 U.S.C. 1962d-5b), and that the person who executed this Agreement on behalf of the St. Johns County, Florida acted within his statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this _____ day of _____ 20___.

_____

Patrick McCormack
County Attorney

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Digitally signed by Jeremiah Ray Blocker
Date: 2021.04.15 16:36:11 -04'00'

Jeremiah Ray Blocker
Chair
St. Johns County Board of County Commissioners

DATE: April 15, 2021

Attachment 8
Physical
Monitoring
Survey

South Ponte Vedra Beach Restoration 2025 Year-Three Post-Construction Physical Monitoring Report

Prepared for: St. Johns County
Coastal Management
3171 Coastal Hwy
St. Augustine, FL 32084

Prepared by:

INTERA-Coastal Tech JV LLC
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Neptune Beach, FL 32266

DECEMMBER 5, 2025

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1.0 Introduction

This monitoring report — prepared for St. Johns County, Florida, and the Florida Department of Environmental Protection (FDEP) — complies with the monitoring requirements specified in FDEP Permit Number 0340616-003-JC for the 2022 South Ponte Vedra Beach (SPVB) Restoration Project. Further, it represents the third annual engineering analysis report required under this permit prior to transitioning to biennial monitoring. The federal permit authorizing the project, Department of the Army Permit No. SAJ-2018-00349 (SP-TMM), does not specify additional monitoring requirements. Section 1.1 describes the beach restoration project and Section 1.2 details the organization of the report.

1.1 Project Overview

In response to chronic erosion of St. Johns County's shoreline, exacerbated by Hurricane Matthew in October 2016 and Hurricane Irma in 2017 as well as subsequent nor'easters and hurricanes, St. Johns County placed 733,122 cubic yards (cy) to restore the beach and dune on approximately 5.4 miles of beach from FDEP reference monument R-76.1 to R-103.5. Figure 1.1 provides a location map, including the limits of other regional projects (see Section 2.1) constructed within and/or adjacent to the SPVB project. Sand originated from Borrow Area N-3, situated approximately eight miles offshore the project area. Weeks Marine, Inc. constructed the project from April – June 2022.

The permitted beach and dune template, varying slightly throughout the project area, consists of (1) a dune with a 15-ft wide crest at elevations of +14 ft to +16 feet (ft) above the North American Vertical Datum of 1988 (NAVD88) with a 4H:1V slope and (2) a 30-ft wide berm with maximum elevations of +10 ft to +12 ft NAVD88, a 1V:100H berm slope, and 10H:1V foreshore slope. The berm width increases to 40 ft at the south end of the project area to transition to the abutting U.S. Army Corps of Engineers (USACE) South Ponte Vedra and Vilano Beach Coastal Storm Risk Management (CSRM) Project. This monitoring study applied the fill template, developed by Atkins and provided in shapefile format by St. Johns County, specified in the construction plans (Figure 1.2 and Figure 1.3).

The monitoring area includes reference areas, approximately 5,000-ft long, immediately north and south of the project area to document the effects of the project on the adjacent beach; thus, the monitoring area extends from R-71 to R-109. Of note, FDEP Permit Number 0340616-003-JC only requires monitoring of the borrow area immediately post-construction; Atkins (2022) documents the pre- and post-dredge conditions of the borrow area.

1.2 Report Organization

Chapter 2 provides background information (e.g., relevant fill placement history and volumes, survey details) providing inputs into the engineering analysis. Chapter 3 documents the analysis of the effects of the project on beach profiles, shoreline positions, and beach volumes over the monitoring period. Chapter 4 summarizes this study.

Appendix A contains photographs of September 2025 beach conditions throughout the monitoring area. Appendix B contains beach profile plots of the surveys used in the project analysis, and Appendix C

contains plots of the associated mean high water (MHW) shorelines overlaid on 2025 aerial photographs. Appendix D contains additional tabulated beach volume change data.

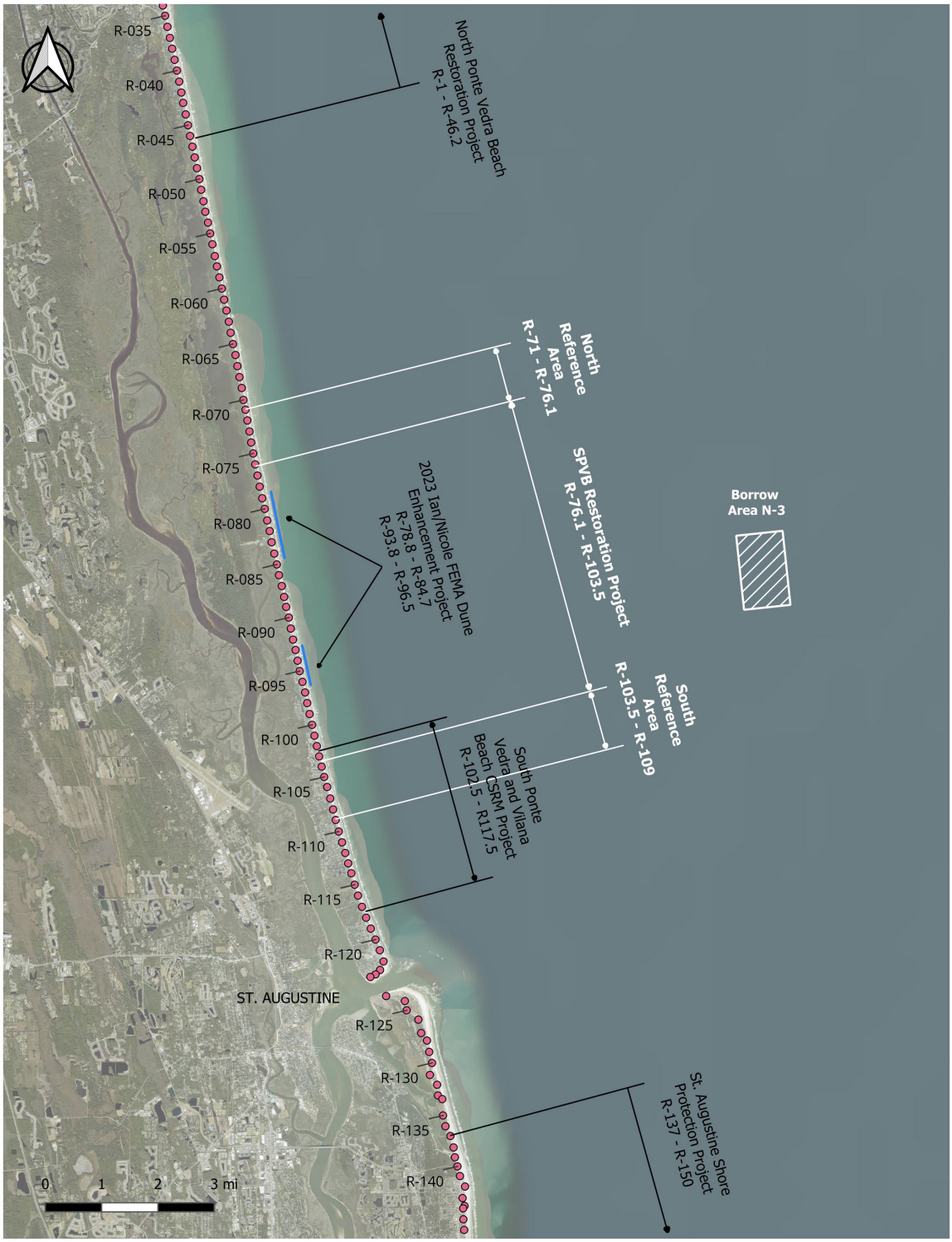


Figure 1.1. Location Map.

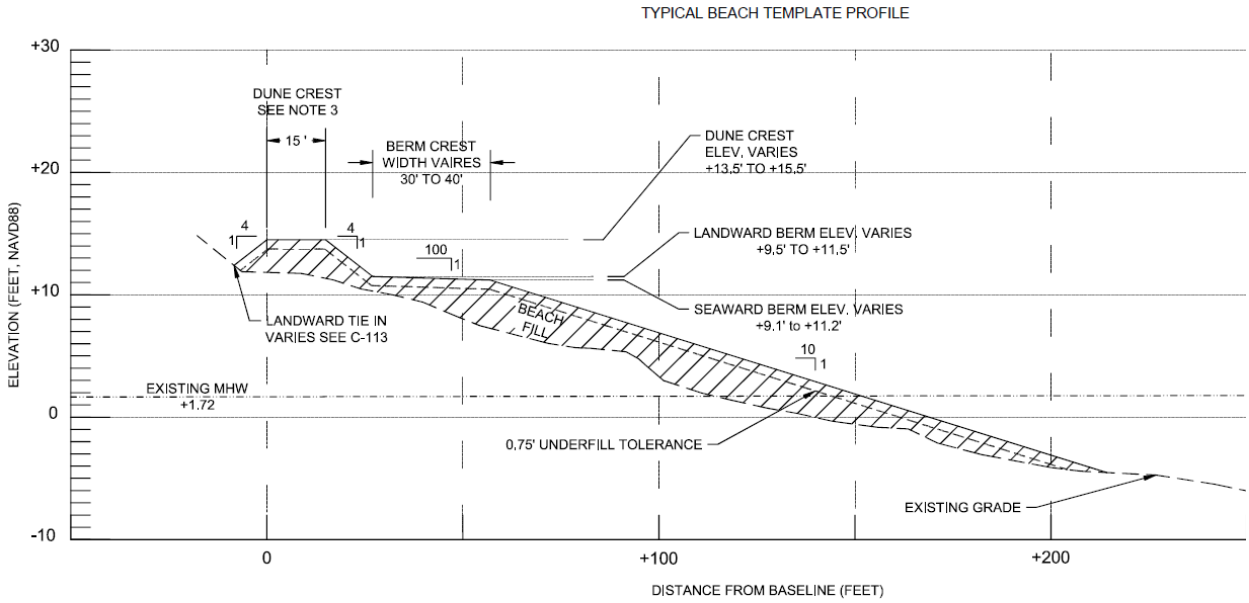


Figure 1.2. Typical Beach Fill Construction Template (Atkins, 2022).

DESIGN FEATURE		R76 TO R79	R80 TO R83	R84 TO R101	R102 TO R103.5
DUNE	ELEVATIONS	14.5 FT NAVD88	14.5 FT NAVD88	13.5 FT NAVD88	15.5 FT NAVD88
	TYP. CREST WIDTH	15 FT	15 FT	15 FT	15 FT
	SEAWARD SLOPE	4H:1V	4H:1V	4H:1V	4H:1V
	LANDWARD SLOPE (WHERE REQUIRED)	4H:1V	4H:1V	4H:1V	4H:1V
BERM	BERM SLOPE	100H:1V	100H:1V	100H:1V	100H:1V
	MAX. ELEVATION	11.5 FT NAVD88	10.5 FT NAVD88	9.5 FT NAVD88	9.5 FT NAVD88
	WIDTH	30 FT	30 FT	30 FT	40 FT
	SEAWARD SLOPE	10H:1V	10H:1V	10H:1V	10H:1V

Figure 1.3. Construction Template Design Features (Atkins, 2022).

2.0 Background Information

2.1 Fill Placement History

Several regional beach fill projects (Table 2.1) constructed during the monitoring period affect the monitoring results of the SPVB Restoration Project. Of most significance, the large-scale federal CSRM Project placed 1,113,000 cy from R-102.5 to R-117.5 during the second half of 2023; this project benefitted the SPV project by placing sand (81,300 cy [USACE, 2024]) directly in the south end of the SPVB project area (the projects overlap from R-102.5 to R-103.5), contributing sand to the project area through northerly dispersion of fill from the CSRM project area, and greatly reducing the potential for losses (i.e., end losses) from southerly dispersion of fill from the SPVB project area. Also in 2023, in response to the severe erosion from hurricanes Ian and Nicole in September and November 2022, St. Johns County completed a FEMA Category B project for emergency berm construction from R-78.8 to R-84.7 and from R-93.8 to R-96.5, placing an average fill density of 5.4 cy/ft (48,092 cy in total), and constructed a FEMA Category G emergency dune restoration in South Ponte Vedra Park, placing approximately 2,300 cy along 400 ft from R-94.6 to R-95. Of note, while the 2021 CSRM project did not occur within the monitoring period, the project introduced a large quantity of sediment into the littoral system, which may continue to affect the conditions of the monitoring area.

Table 2.1. South Ponte Vedra Beach and Vilano Beach Fill Placement History.

Date	Project[1]	Fill Volume (cy)	Fill Placement Area	Contractor
Oct. – Apr. 2021	SPV Vilano CSRM	1,297,862[2]	R-102.5 to R-117.5	Great Lakes Dredge & Dock Co.
Apr. – Jun. 2022	SPVB Restoration	733,122	R-76.1 to R-103.5	Weeks Marine, Inc.
Aug. – Dec. 2023	SPV Vilano CSRM	1,113,000[3]	R-102.5 to R-117.5	Weeks Marine, Inc.
Sep. 2023	SPV Park Dune Restoration	2,300[4]	R-94.6 to R-95	Southeastern Marine Group, Inc.
Oct. – Nov. 2023	Ian/Nicole FEMA Dune Enhancement	48,092	R-78.8 to R-84.7, R-93.8 to R-96.5	Phillips & Jordan, Inc,

[1]St. Johns County constructed Hurricane Matthew and Irma FEMA Category B Emergency Berm Restoration from R-67 to R-76 in 2021-2022; the small-scale project occurred prior to and does not affect the SPVB Restoration's monitoring results.
[2]Placed pay volume reported by USACE (gross volume was 1,408,000 cy)
[3]Placed pay volume reported by USACE (1,417,000 cy dredged volume [USACE, 2024])
[4]Approximated volume based on 3,185 pay tonnage

2.2 Beach Profile Surveys

St. Johns County, U.S. Army Corps of Engineers (USACE), and FDEP have sponsored collection (via traditional methods and LiDAR) of beach profile survey data in the project area. Table 2.2 summarizes the timeline for the beach profile data sets available in the area. This report compares the 2022 pre-fill

survey, 2022 post-fill survey, 2024 (year-two post-fill), and 2025 (year-three post-fill) survey beach profiles for the monitoring area from R-71 to R-109 (39 profiles).

The beach profiles occur at FDEP reference monument locations. These monuments comprise an extensive network of survey control that FDEP (formerly the Florida Department of Natural Resources) originally established in the early 1970s and currently maintains. These monuments serve as temporally consistent base points to originate beach profile surveys. Table 2.3 lists the monuments used in this monitoring analysis. Notably, the table also lists controlling distances for each monument, applied to calculate weighted averages in the engineering analysis. A monument's controlling distance extends between the halfway points of adjacent monuments; however, a deviation from this definition occurs at the north end of the project area due to the extent of fill placement. Lack of an easement prohibited fill placement at R-76; thus, R-76.1 (i.e., 100 ft south of R-76) represents the northern limit of fill placement. Therefore, the controlling distance for R-76, included in the north reference area, extends from R-75.5 (i.e., halfway between R-75 and R-76) to R-76.1, and the controlling distance for R-77, in the project area, extends from R-76.1 to R-77.5 (i.e., halfway between R-77 and R-78).

Table 2.2. Beach Profile Survey History.

Date	Description	Firm	Extents
July/August 2019	2019 Conditions	Degrove Surveyors, Inc.	R-80 to R-104
November 2019	2019 Conditions	Morgan & Eklund, Inc.	R-76 to R-79
April 2022	Pre-Fill	Gahagan & Bryant Associates, Inc.	R-71 to R-109
May 2022	Post-Fill	Gahagan & Bryant Associates, Inc.	R-71 to R-109
July 2023	Year-One Post-Fill	Arc Surveying & Mapping, Inc.	R-71 to R-79
July 2023	Year-One Post-Fill	Degrove Surveyors, Inc.	R-80 to T-157
November 2023	2023 Ian/Nicole FEMA Project Post-Fill	Arc Surveying & Mapping, Inc.	R-78 to R-98
August 2024	Year-Two Post-Fill	Arc Surveying & Mapping, Inc.	R-67 to R-109
July 2025	Year-Three Post-Fill	Degrove Surveyors, Inc.	R-80 to T-157
August 2025	Year-Three Post-Fill	Arc Surveying & Mapping, Inc.	R-71 to R-79

Table 2.3. FDEP Reference Monuments.

Area	Monument	Easting[1]	Northing[1]	Azimuth (°N)	Controlling Distance (ft)
North Reference Area	R-71	551,421.75	2,080,891.69	75	978
	R-72	551,595.84	2,079,882.01	75	1,036
	R-73	551,799.31	2,078,847.21	75	1,044
	R-74	551,952.48	2,077,815.26	75	1,038
	R-75	552,144.84	2,076,789.81	75	1,041
	R-76	552,333.33	2,075,761.23	75	627
Fill Placement Area	R-77	552,544.79	2,074,717.61	75	1,487
	R-78	552,749.39	2,073,673.59	75	1,086
	R-79	552,986.84	2,072,587.46	75	1,068
	R-80	553,221.69	2,071,589.43	75	1,066
	R-81	553,451.43	2,070,504.14	75	1,064

Area	Monument	Easting[1]	Northing[1]	Azimuth (°N)	Controlling Distance (ft)
	R-82	553,687.17	2,069,511.51	75	1,042
	R-83	553,869.00	2,068,459.47	75	1,077
	R-84	554,120.03	2,067,396.82	75	1,068
	R-85	554,356.02	2,066,379.28	75	1,032
	R-86	554,556.60	2,065,377.36	75	1,037
	R-87	554,819.38	2,064,355.48	75	1,049
	R-88	555,042.04	2,063,334.80	75	999
	R-89	555,233.72	2,062,398.22	75	991
	R-90	555,472.63	2,061,397.66	75	1,036
	R-91	555,664.56	2,060,368.98	75	1,049
	R-92	555,876.17	2,059,333.59	75	1,028
	R-93	556,112.12	2,058,361.01	75	1,010
	R-94	556,301.45	2,057,355.72	75	1,005
	R-95	556,495.90	2,056,383.43	75	1,016
	R-96	556,760.02	2,055,374.38	75	1,034
	R-97	557,002.40	2,054,378.39	75	1,019
	R-98	557,200.08	2,053,382.52	75	1,032
	R-99	557,425.03	2,052,355.00	75	1,046
	R-100	557,661.96	2,051,340.16	75	1,039
	R-101	557,879.74	2,050,324.66	75	1,019
	R-102	558,103.42	2,049,348.97	75	996
	R-103	558,321.91	2,048,381.47	75	990
South Reference Area	R-104	558,557.68	2,047,420.02	75	992
	R-105	558,792.65	2,046,454.35	75	988
	R-106	559,073.67	2,045,513.26	75	1,048
	R-107	559,357.88	2,044,435.73	75	1,089
	R-108	559,630.27	2,043,408.20	75	1,038
	R-109	559,870.56	2,042,423.61	75	1,068

[1]Coordinates reference the North American Datum of 1983, State Plane Florida East Zone in Feet

2.3 Wave Climate

Figure 2.1 plots measured offshore significant wave heights from January 2022 – August 2025, based on data from NOAA's National Data Buoy Center (NDBC) Station 41117 located approximately 12.4 miles east of the project area (https://www.ndbc.noaa.gov/station_history.php?station=41117). The data reflects wave conditions in the open ocean with a water depth of approximately 76 ft but generally represents the nearshore conditions of the project area. Hurricanes Ian and Nicole produced the largest wave heights a few months after construction in 2022. Two severe nor'easters occurred in 2023 (April and December), with wave heights exceeding those produced by Hurricane Idalia and other less powerful nor'easters (generally indicated by the unlabeled spikes in the figure) that year. During the 2024–2025 monitoring period, hurricanes Helene and Milton produced extreme wave conditions, followed by relatively calm conditions in 2025.

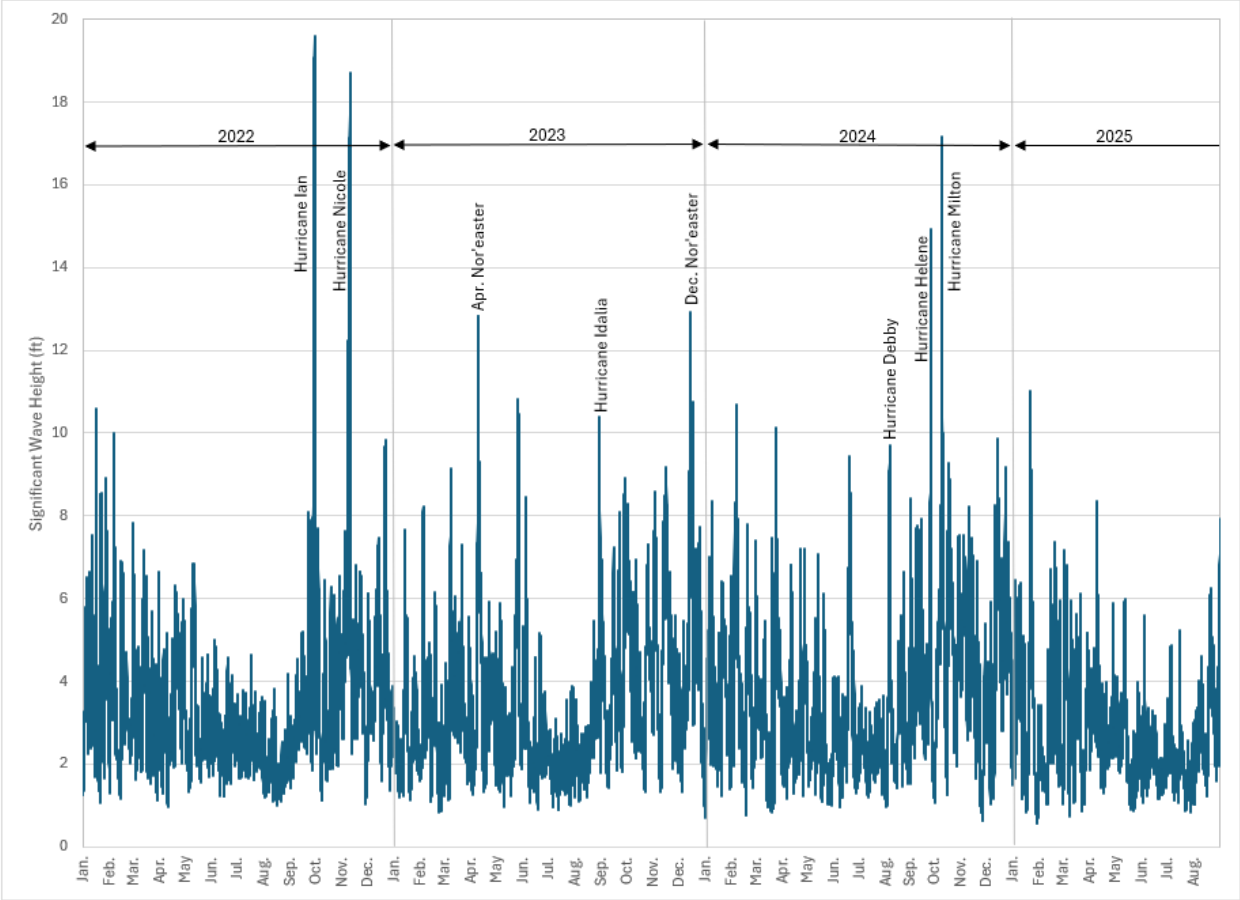


Figure 2.1. 2022 – 2025 Significant Wave Heights at NOAA NDBC Station 41117

2.4 Tidal Datums

Table 2.4 contains tidal datums in the monitoring area, based on tidal benchmark data from National Oceanic and Atmospheric Administration (NOAA) Station 8720587 (https://tidesandcurrents.noaa.gov/stationhome.html?id=8720587), located in St. Augustine Beach approximately eight miles south of the project area. The mean high water (MHW) elevation used in the engineering analysis equals +1.64 ft NAVD88.

Table 2.4. Tidal Datums at NOAA Station 8720587.

Datum	Elevation (ft NAVD88)
Mean Higher-High Water (MHHW)	2.01
Mean High Water (MHW)	1.64
Mean Tide Level (MTL)	-0.67
Mean Sea Level (MSL)	-0.7
Mean Low Water (MLW)	-2.97
Mean Lower-Low Water (MLLW)	-3.13

3.0 Engineering Analysis

The engineering analysis consists of mean high water (MHW) shoreline position and beach volume changes. Calculating the distance from the FDEP reference monument to the MHW position tracks the shoreline position. Shoreline changes between the monuments show how the beach fill evolves alongshore while shoreline changes over time show how the beach fill evolves cross shore. Calculating the beach volumes between reference monuments and surveys provides another perspective on performance for the beach fill project. This engineering analysis separates the cross-shore volumes into three vertical compartments: dune to MHW, MHW to -20 ft NAVD88, and below -20 ft NAVD88.

This analysis compares the 2022 pre-fill, 2022 post-fill, 2024 (year-two post-fill), and 2025 (year-three post-fill) beach profiles. The 2024 (year-two post-fill) to 2025 (year-three post-fill) survey comparison reveals how the completed restoration project fared over the past year. The 2022 pre-fill survey to 2025 (year-three post-fill) survey comparison shows the effects of the project with a placed volume of over 733,000 cy. The 2022 post-fill survey to 2025 (year-three post-fill) survey comparison shows how the project has fared after approximately three years of service. Of note, the latter two comparisons inherently include the effects of the other regional projects discussed in Section 2.1.

3.1 Shoreline Positions and Changes

Table 3.1 and Figure 3.1 present the surveyed MHW shoreline positions as a function of distance from each monument for the 2022 pre-fill, 2022 post-fill, 2024 year-two post-fill, and 2025 year-three post-fill surveys. Table 3.2 and Figure 3.2 present the MHW shoreline position changes for the 2022 pre-fill to 2025 year-three post-fill, 2022 post-fill to 2025 year-three post-fill, and 2024 year-two post-fill to 2025 year-three post-fill survey periods for R-71 to R-109. A positive value indicates shoreline advancement (seaward) and a negative value indicates shoreline retreat (landward).

3.1.1 2022 Pre-fill (April 2022) – 2025 Year-Three Post-Fill (July/August 2025)

The changes between the pre-fill and 2025 conditions indicate the overall effect of the project approximately three years following construction. Within the fill placement area, the MHW shoreline advanced 37.7 ft on average, with advance occurring at all monuments except R-97 (-28.8 ft shoreline retreat). The largest advance (98.5 ft) occurred at R-86. The beach profile plots (Appendix B) and MHW plots (Appendix C) indicate the retreat at R-97 appears to reflect both an atypically wide beach at R-97 in April 2022 and eroded conditions in 2025, and the large advance at R-86 reflects an unusually wide berm in 2025, possibly capturing a wide beach cusp.

The north and south reference areas experienced shoreline advance at all monuments, not surprising due to longshore dispersion of fill from the project area. North of the project, significant shoreline advance (50.0 ft) occurred immediately adjacent to the project area at R-76, while minor to moderate advance, ranging from 3.5 to 22.3 ft, occurred further north. South of the project, significant shoreline advance averaging 75.9 ft occurred due largely to direct fill placement from the abutting CSRM project constructed in 2021.

3.1.2 2022 Post-fill (May 2022) – 2025 Year-Three Post-Fill (July/August 2025)

The changes between the post-fill and 2025 conditions indicate the overall performance of the project approximately three years following construction. The fill placement area experienced a wide-ranging mix of shoreline advance and retreat, ranging from 65.9 ft advance at R-86 to -68.4 ft retreat at R-97 and averaging -8.4 ft. The south-central region from R-88 to R-98 experienced retreat (-31.8 ft on average) at every monument, whereas shoreline advance predominantly occurred north (8.1 ft on average) and south (3.6 ft on average) of this stretch of beach.

The north and south reference areas experienced shoreline advance at all monuments. North of the project, minor to moderate shoreline advance ranging from 9.4 to 28.2 ft (averaging 17.1 ft) occurred, likely due to fill dispersion. South of the project, significant shoreline advance — averaging 56.3 ft — occurred due to direct fill placement from the abutting CSRM project.

3.1.3 2024 Year-Two Post-Fill (July 2024) – 2025 Year-Three Post-Fill (July/August 2025)

The changes from 2024–2025 reveal the performance of the project over the past year, during the third year following construction. The fill placement area experienced shoreline advance at all monuments except R-88 (-7.6 ft) and R-102 (-2.0 ft), with an average of 20.8 ft. The shoreline advance varied widely from 0.7 ft (R-81) to 70.9 ft (R-86).

The north and south reference areas experienced a mix of shoreline advance and retreat. North of the project, the changes varied widely from minor recession (-2.9 ft) at R-74 to significant advance (33.6 ft) at R-71, with an average of 17.4 ft. South of the project, shoreline retreat predominantly occurred, resulting in average retreat of -6.5 ft.

3.1.4 Construction Template – 2025 Year-Three Post-Fill (July/August 2025)

Comparing 2025 conditions to the construction template provides a general indication of the need for a nourishment project. On average, the shoreline within the fill placement area lies only 12.5 ft landward (i.e., retreat) of the authorized template; however, the conditions varied widely. The far north end (R-77 advanced 21.0 ft. The next two miles (R-78 to R-87) experienced a mix of advance and retreat, ranging from 38.3 ft (R-83) to -32.2 ft (R-82) with an average of -1.7 ft. The approximately 9,000-ft stretch from R-88 to R-97 predominantly experienced significant retreat, with an average of -43.2 ft and a maximum of -64.3 ft (R-97). The southern end (R-98 to R-103) predominantly experienced shoreline advance (11.6 ft on average), with a maximum advance of 34.4 ft (R-100) and maximum retreat of -7.9 ft (R-102).

Table 3.1. MHW Shoreline Positions.

Area	Monument	Shoreline Position (ft from Monument)				
		Apr. 2022 Pre-Fill	May 2022 Post-Fill	July 2024	July/Aug. 2025	Fill Template
North Reference Area	R-71	191.7	188.7	170.9	204.5	-
	R-72	208.2	183.4	185.1	211.7	-
	R-73	167.1	163.9	171.3	189.4	-
	R-74	187.9	191.1	203.3	200.5	-
	R-75	190.4	189.7	190.9	200.4	-
	R-76	171.0	210.7	198.2	221.0	-
Fill Placement Area	R-77	207.5	208.4	199.9	218.7	197.7
	R-78	194.8	221.7	196.7	225.9	223.9
	R-79	171.2	204.5	183.3	195.8	212.3
	R-80	157.2	175.4	160.2	175.7	176.8
	R-81	148.4	185.9	164.2	164.9	189.6
	R-82	112.9	132.4	133.9	134.7	166.9
	R-83	163.1	191.0	172.1	203.3	165.0
	R-84	120.7	127.8	152.3	159.3	160.6
	R-85	96.2	161.2	129.7	152.1	171.6
	R-86	126.9	159.4	154.5	225.4	193.7
	R-87	82.8	153.9	117.8	154.7	149.5
	R-88	73.5	144.3	106.3	98.7	157.0
	R-89	80.7	161.8	101.4	110.4	172.4
	R-90	31.7	140.8	90.0	98.8	154.9
	R-91	108.7	175.1	141.4	148.3	188.4
	R-92	104.8	166.5	132.7	161.9	177.8
	R-93	70.4	146.3	99.9	120.3	148.3
	R-94	100.8	152.1	119.3	131.3	167.7
	R-95	112.8	181.8	134.7	151.8	190.9
	R-96	80.0	143.4	74.4	114.7	146.9
	R-97	106.2	145.8	64.1	77.4	141.7
	R-98	119.3	145.9	92.5	140.4	146.8
	R-99	106.3	151.6	124.4	166.6	139.1
	R-100	108.0	149.2	120.6	172.4	138.0
	R-101	116.8	161.3	149.9	160.2	151.9
	R-102	121.0	175.3	154.4	152.4	160.3
	R-103	146.3	180.0	167.5	182.6	169.8
South Reference Area	R-104	180.7	186.8	187.5	195.6	-
	R-105	156.4	163.7	209.1	204.1	-
	R-106	81.9	108.0	189.1	183.1	-
	R-107	125.4	134.5	211.3	212.9	-
	R-108	123.5	142.6	251.8	228.6	-
	R-109	154.6	203.4	262.4	248.6	-

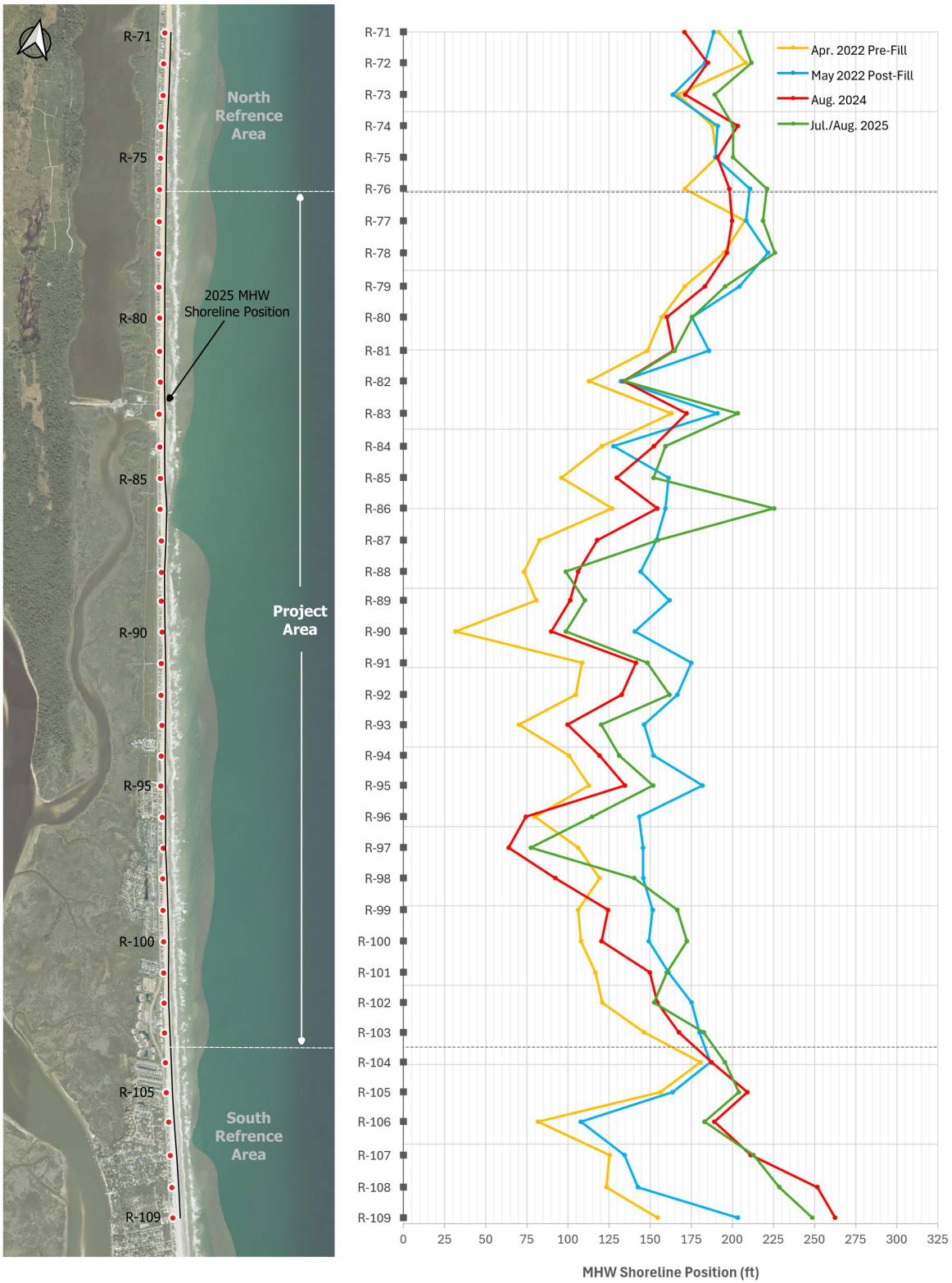


Figure 3.1. MHW Shoreline Positions.

Table 3.2. MHW Shoreline Position Changes.

Area	Monument	Shoreline Position Changes (ft)			
		Pre-Fill – July/Aug. 2025	Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025	July/Aug. 2025 – Fill Template
North Reference Area	R-71	12.8	15.8	33.6	-
	R-72	3.5	28.2	26.6	-
	R-73	22.3	25.4	18.1	-
	R-74	12.6	9.4	-2.9	-
	R-75	10.0	10.7	9.5	-
	R-76	50.0	10.3	22.8	-
Fill Placement Area	R-77	11.2	10.3	18.9	21.0
	R-78	31.1	4.2	29.2	2.0
	R-79	24.5	-8.7	12.5	-16.5
	R-80	18.5	0.3	15.5	-1.1
	R-81	16.5	-20.9	0.7	-24.7
	R-82	21.8	2.3	0.8	-32.2
	R-83	40.2	12.3	31.2	38.3
	R-84	38.6	31.6	7.0	-1.3
	R-85	56.0	-9.1	22.4	-19.5
	R-86	98.5	65.9	70.9	31.7
	R-87	72.0	0.8	36.9	5.2
	R-88	25.3	-45.5	-7.6	-58.3
	R-89	29.6	-51.4	9.0	-62.0
	R-90	67.1	-42.0	8.8	-56.1
	R-91	39.7	-26.8	6.9	-40.1
	R-92	57.1	-4.7	29.2	-15.9
	R-93	49.9	-26.0	20.4	-28.0
	R-94	30.5	-20.8	11.9	-36.4
	R-95	39.0	-30.0	17.1	-39.1
	R-96	34.6	-28.7	40.2	-32.2
	R-97	-28.8	-68.4	13.4	-64.3
	R-98	21.1	-5.5	47.9	-6.4
	R-99	60.2	14.9	42.1	27.5
	R-100	64.3	23.2	51.8	34.4
	R-101	43.3	-1.1	10.3	8.3
	R-102	31.5	-22.9	-2.0	-7.9
	R-103	36.3	2.6	15.1	12.8
South Reference Area	R-104	14.9	8.9	8.1	-
	R-105	47.7	40.3	-5.1	-
	R-106	101.1	75.1	-6.1	-
	R-107	87.5	78.4	1.6	-
	R-108	105.0	85.9	-23.2	-
	R-109	94.0	45.2	-13.8	-
Weighted Average (cy/ft)					
North Reference Area		16.3	17.1	17.4	-
Fill Placement Area		37.7	-8.4	20.8	-12.5
South Reference Area		75.9	56.3	-6.5	-

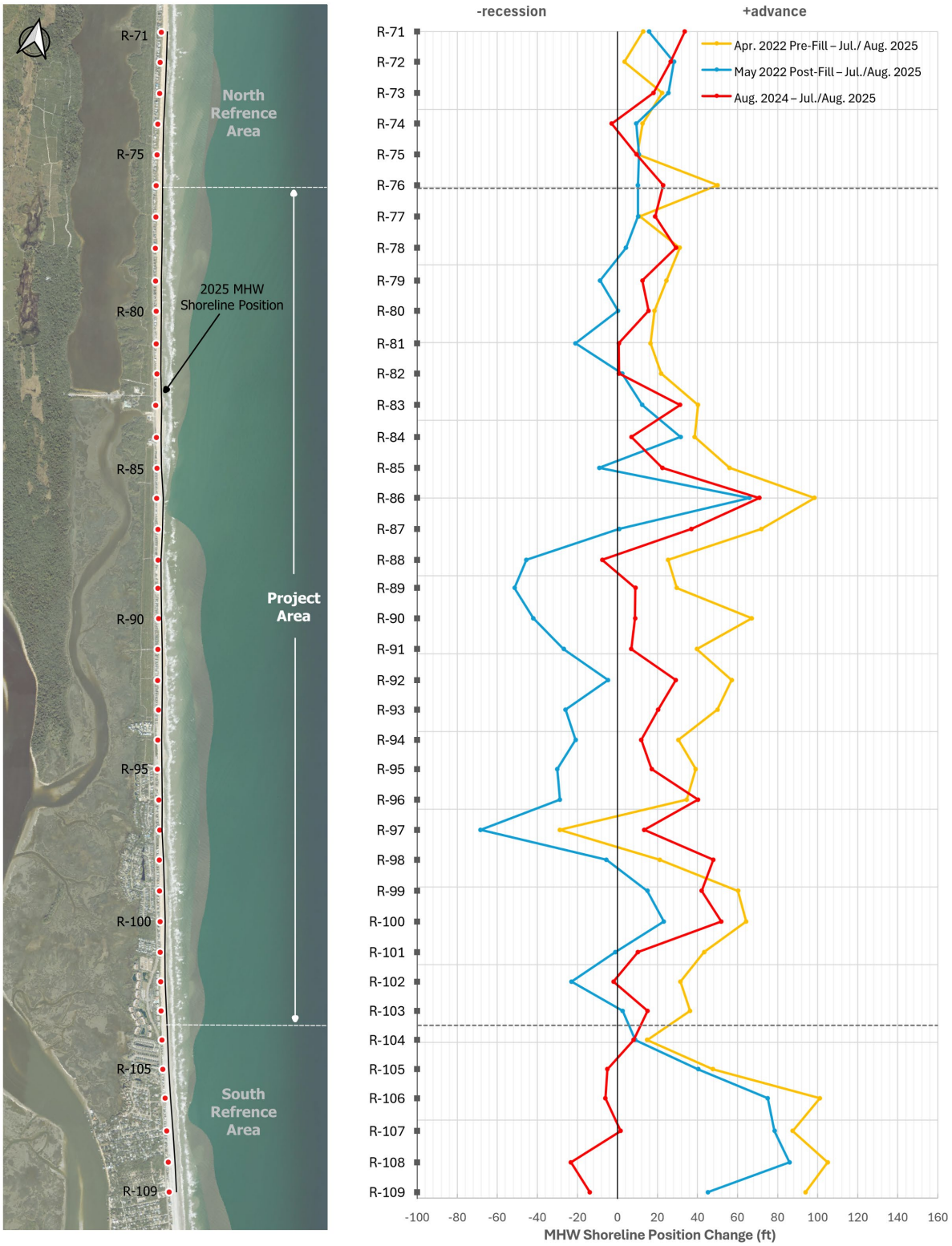


Figure 3.2. MHW Shoreline Position Changes.

3.2 Beach Volume Changes

Table 3.3 – Table 3.6 and Figure 3.3 – Figure 3.6 present volume changes for the dune to MHW, MHW to -20 ft NAVD88, below -20 ft NAVD88, and total vertical compartments at each reference monument. The tables present the volume changes as cy/ft; Appendix D presents the volume changes in cy. The latter quantity for each monument results by multiplying the corresponding controlling distance times the volume change at the monument. Table 3.7 summarizes the volume changes in cy/ft and cy for all monitoring areas, vertical compartments, and survey year comparisons. Of note, the profile surveys at each monument and for each survey year terminate offshore at different depths (roughly -40 ft NAVD88 on average); the volume calculations extend to the deepest common depth between surveys at each monument, as opposed to terminating at a constant elevation across the monitoring area. Doing so allows for including all available data into the volume change analyses.

3.2.1 2022 Pre-fill (April 2022)–2025 Year-Three Post-Fill (July/August 2025)

The pre-fill to 2025 volume changes indicate the overall effect of the project approximately three years following construction. Throughout the entire survey area (i.e., dune to approximately 2,500-3,000 ft offshore), the project area gained 902,168 cy (31.8 cy/ft), with 338,045 cy (11.9 cy/ft) accretion occurring above MHW, 60,708 cy (2.1 cy/ft) occurring between MHW and -20 ft NAVD88, and 503,415 cy (17.7 cy/ft) occurring below -20 ft NAVD88. Given the total fill placement volume of 864,822 cy — 733,122 cy from the project plus an additional 131,700 cy directly placed by the other projects discussed in Section 2.1 (48,100 cy from the FEMA project, 2,300 cy from the SPV Park project, and 81,300 cy from the CSRM project [including 21,300 cy above MHW]) — the above results suggest the project area has retained all the fill and gained an additional 37,346 cy (i.e., 902,168 – 864,822). Given the assumption all fill placement occurred above -20 ft NAVD88, approximately 46% remains above -20 ft NAVD88 (i.e., [338,045+60,708]/864,822) while the remainder moved offshore, likely through the combined effects of fill equilibration and storm-induced cross-shore transport.

Above MHW, accretion occurred at every monument except R-97 (-1.7 cy/ft) with relatively minor variation, having a maximum gain (25.3 cy/ft at R-103) not significantly exceeding the average (11.9 cy/ft) within the project area. Between MHW and -20 ft NAVD88, a mix of accretion and erosion occurred, ranging from 56.5 cy/ft (R-90) to -28.7 cy/ft (R-97) netting the slight gain (2.1 cy/ft) on average. Beyond -20 ft NAD88, the project area predominantly experienced accretion, averaging 17.7 cy/ft with a maximum (67.7 cy/ft) at R-98; erosion only occurred in the central region from R-88 to R-91 (ranging from -1.2 cy/ft to -50.7 cy/ft) and at R-95 (-24.5 cy/ft). In total, accretion occurred at every monument except R-77, R-88, R-89, R-91, and R-95.

The north reference area experienced a total loss of -85,579 cy (-14.8 cy/ft), with 11,462 cy (2.0 cy/ft) accretion occurring above MHW, -106,398 cy (-18.5 cy/ft) erosion occurring between MHW and -20 ft NAVD88, and 9,357 cy (1.6 cy/ft) accretion occurring below -20 ft NAVD88.

The south reference area experienced a total gain of 398,061 cy (64.0 cy/ft), with 195,887 cy (31.5 cy/ft) accretion occurring above MHW, 91,795 cy (14.7 cy/ft) occurring between MHW and -20 ft NAVD88, and 110,409 cy (17.7 cy/ft) occurring below -20 ft NAVD88.

Analysis of the profile plots (Appendix B) indicates a significantly wider dry beach overall but a much flatter nearshore region (between MHW and -20 ft NAVD88) without the pronounced offshore bar evident in the 2022 survey. Taylor Engineering (2023) documents the effects of the active 2022 hurricane season, which flattened the offshore bar and deposited the sand further offshore.

3.2.2 2022 Post-fill (May 2022)– 2025 Year-Three Post-Fill (July 2025)

The changes between the post-fill and 2025 conditions indicate the overall performance of the project approximately three years following construction. Throughout the entire survey area (i.e., dune to approximately 2,500-3,000 ft offshore), the project area gained 4,602 cy (0.2 cy/ft), with -183,985 cy (-6.5 cy/ft) erosion occurring above MHW, -229,454 cy (-8.1 cy/ft) erosion occurring between MHW and -20 ft NAVD88, and 418,040 cy (14.7 cy/ft) accretion occurring below -20 ft NAVD88. The accretion below -20 ft NAVD88 nearly balances the erosion above -20 ft NAVD88, indicating significant cross-shore transport of the fill material has occurred; the slight surplus of material indicates no alongshore losses. The above erosion and accretion pattern is readily apparent in the profile plots.

Above MHW, erosion occurred within the project area at most monuments; a mix of erosion and accretion occurred in the northern (R-77 to R-86) and southern (R-101 to R-103) portions of the project area, while erosion persisted from R-87 to R-100. Between MHW and -20 ft NAVD88, erosion occurred at every monument in the north and central regions of the project area (except R-86 and R-90), while accretion predominantly occurred at the south end from R-98 to R-103. Beyond -20 ft NAD88, accretion occurred at every monument except R-85, R-88, R-89, R-91, and R-95. In total, a mix of accretion and erosion occurred; the northern section (R-77 to R-86) experienced a mix, erosion dominated in the central region (R-87 to R-95), and accretion dominated in the southern (R-96 to R-103). The accretion at the southern end is largely influenced by the direct placement of 81,300 cy in the project area by the overlapping 2023 CSRM project.

The north reference area experienced a total loss of -119,658 cy (-20.8 cy/ft), with 2,248 cy (0.4 cy/ft) accretion occurring above MHW, -128,481 cy (-22.3 cy/ft) erosion occurring between MHW and -20 ft NAVD88, and 6,575 cy (1.1 cy/ft) accretion occurring below -20 ft NAVD88.

The south reference area experienced a total gain of 447,679 cy (71.9 cy/ft), with 174,925 cy (28.1 cy/ft) accretion occurring above MHW, 103,666 cy (16.7 cy/ft) occurring between MHW and -20 ft NAVD88, and 169,088 cy (27.2 cy/ft) occurring below -20 ft NAVD88.

The erosion/accretion patterns in the reference areas are like the prior analysis period, suggesting minor changes occurred during construction as expected.

3.2.3 2024 Year-Two Post-Fill (July 2024)–2025 Year-Three Post-Fill (July/August 2025)

The changes from 2024–2025 reveal the performance of the project over the past year, during the third year following construction. Throughout the entire survey area (i.e., dune to approximately 2,500-3,000 ft offshore), the project area gained 1,025,640 cy (36.1 cy/ft), with 174,380 cy (6.1 cy/ft) accretion occurring above MHW, 245,086 cy (8.6 cy/ft) occurring between MHW and -20 ft NAVD88, and 606,174 cy (21.4 cy/ft) occurring below -20 ft NAVD88.

Above MHW, accretion occurred within the project area at every monument except R-81 (-0.9 cy/ft); minor accretion dominated, with an average of 6.1 cy/ft and maximum of 15.3 cy/ft (R-86) within the project area. Between MHW and -20 ft NAVD88, accretion occurred at all monuments except R-88, R-89, R-91, R-92, and R-95; minor to moderate accretion predominantly occurred, with an outlying maximum of 38.5 cy/ft (R-85). Beyond -20 ft NAD88, accretion occurred at all monuments except R-87, R-88, R-94, and R-97; moderate to significant accretion predominantly occurred, with a maximum of 69.2 cy/ft (R-98).

The north reference area experienced total accretion of 115,780 cy (20.1 cy/ft), with 18,754 cy (3.3 cy/ft) accretion occurring above MHW, 4,926 cy (0.9 cy/ft) occurring between MHW and -20 ft NAVD88, and 92,099 cy (16.0 cy/ft) occurring below -20 ft NAVD88.

The south reference area experienced a total gain of 173,907 cy (27.9 cy/ft), with -2,031 cy (-0.3 cy/ft) erosion occurring above MHW, 25,794 cy (4.1 cy/ft) accretion occurring between MHW and -20 ft NAVD88, and 150,144 cy (24.1 cy/ft) accretion occurring below -20 ft NAVD88.

Analysis of the profile plots indicates that sand appears to continue moving from the offshore bar towards the beach, indicative of continued natural recovery following hurricanes Ian and Nicole in 2022. The plots do not show any pronounced accretion features offshore -20 ft NAVD88; the large accretion volume in this compartment seems to reflect slight elevation gains over a large distance.

3.2.4 Construction Template – 2025 Year-Three Post-Fill (July/August 2025)

Comparison of the fill template and 2025 survey reveals the current fill capacity for a nourishment project. As shown in Table 3.8, rebuilding the construction template would require approximately 294,056 cy (10.4 cy/ft). The approximately 10,200-ft long segment from R-88 to R-97 requires the bulk of this volume, approximately 211,851 cy (20.8 cy/ft). The northernmost 12,100 ft (R-77 to R-87) requires 61,147 cy (5.1 cy/ft), while the southernmost 6,100 ft (R-98 to R-103) requires 21,058 cy (3.4 cy/ft). Of note, the above capacity reflects available space within the fill template; this capacity assumes the volume of sand currently lying above the fill template (135,753 cy), evident in the profile plots, remains in place.

Table 3.3. Dune to MHW Volume Changes.

Area	Monument	Volume Change (cy/ft)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	0.1	-0.1	5.0
	R-72	1.0	3.7	4.0
	R-73	-2.7	-3.6	2.9
	R-74	3.3	0.9	2.8
	R-75	2.5	0.0	1.1
	R-76	11.3	2.3	4.3
Fill Placement Area	R-77	8.1	-0.5	1.5
	R-78	14.7	2.2	14.2
	R-79	14.2	-1.6	3.1
	R-80	11.4	-0.8	0.4
	R-81	8.0	-10.4	-0.9
	R-82	8.9	-5.8	2.4
	R-83	12.5	5.8	7.0
	R-84	15.6	8.9	3.4
	R-85	13.4	-2.5	8.9
	R-86	21.8	5.3	15.3
	R-87	20.3	-1.5	12.2
	R-88	6.8	-16.5	1.6
	R-89	11.0	-21.6	6.0
	R-90	12.2	-22.0	1.1
	R-91	10.2	-14.5	3.2
	R-92	12.5	-8.3	7.6
	R-93	13.6	-10.5	9.0
	R-94	12.0	-13.3	5.8
	R-95	5.9	-19.2	0.6
	R-96	5.8	-18.7	5.9
	R-97	-1.7	-23.8	5.8
	R-98	3.6	-8.8	13.1
	R-99	13.0	-4.0	9.2
	R-100	9.4	-6.1	7.2
	R-101	17.9	0.1	8.7
	R-102	16.9	-5.9	6.3
	R-103	25.3	13.9	9.1
South Reference Area	R-104	26.8	24.9	3.4
	R-105	25.2	19.0	3.0
	R-106	35.7	31.5	-1.2
	R-107	37.5	34.7	-0.1
	R-108	32.5	30.5	-0.3
	R-109	30.3	27.2	-6.2
Weighted Average (cy/ft)				
North Reference Area		2.0	0.4	3.3
Fill Placement Area		11.9	-6.5	6.1
South Reference Area		31.5	28.1	-0.3

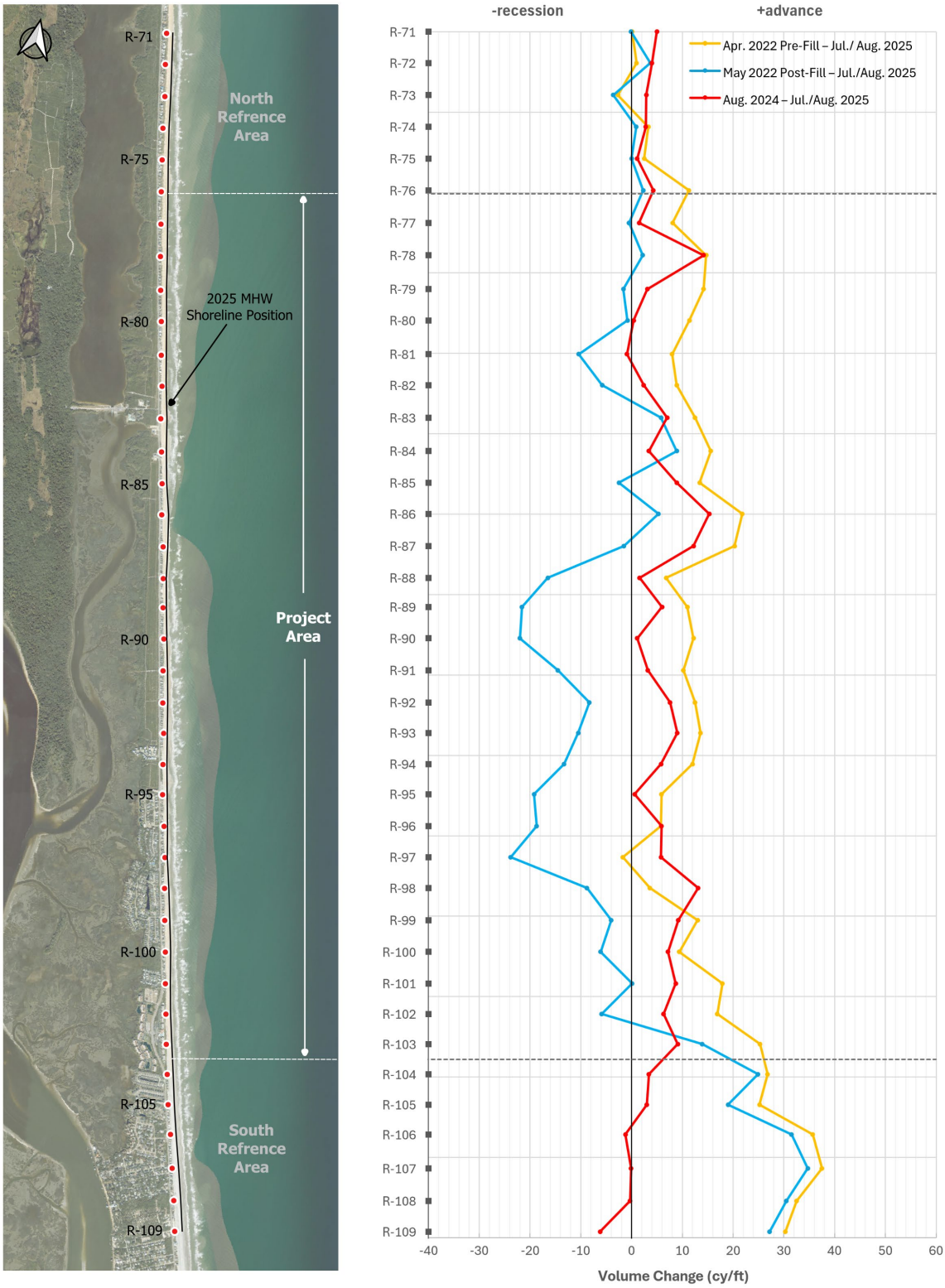


Figure 3.3. Dune to MHW Volume Changes.

Table 3.4. MHW to -20 ft NAVD88 Volume Changes.

Area	Monument	Volume Change (cy/ft)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	-33.8	-40.4	3.4
	R-72	-28.9	-22.5	4.5
	R-73	-24.7	-18.8	-3.9
	R-74	-1.6	-13.4	-1.1
	R-75	-5.7	-16.4	2.8
	R-76	-16.0	-24.1	-1.1
Fill Placement Area	R-77	-24.4	-28.3	0.9
	R-78	0.4	-16.4	13.4
	R-79	11.2	-3.9	23.6
	R-80	-5.2	-22.0	21.1
	R-81	-12.7	-29.2	15.2
	R-82	-7.9	-31.3	14.7
	R-83	-1.4	-15.1	14.7
	R-84	-4.0	-5.3	10.0
	R-85	3.0	-11.5	38.5
	R-86	24.9	11.0	3.0
	R-87	-15.9	-33.7	-6.2
	R-88	-7.7	-26.1	-8.0
	R-89	-12.8	-28.9	22.5
	R-90	56.5	16.0	3.9
	R-91	-20.1	-25.7	0.5
	R-92	-1.7	-7.3	7.0
	R-93	4.1	-4.2	6.5
	R-94	5.4	-1.9	-3.5
	R-95	-2.4	28.7	0.8
	R-96	-6.2	-1.7	6.0
	R-97	-28.7	-13.6	-5.7
	R-98	21.8	17.6	7.9
	R-99	48.0	15.5	19.3
	R-100	19.8	-1.6	5.7
	R-101	11.8	0.3	11.6
	R-102	4.6	0.2	0.8
	R-103	8.8	11.7	10.2
South Reference Area	R-104	35.3	18.3	14.9
	R-105	24.9	14.7	3.1
	R-106	9.9	27.2	0.5
	R-107	11.3	14.9	-0.6
	R-108	7.2	11.9	1.5
	R-109	1.8	12.9	6.1
Weighted Average (cy/ft)				
North Reference Area		-18.5	-22.3	0.9
Fill Placement Area		2.1	-8.1	8.6
South Reference Area		14.7	16.7	4.1

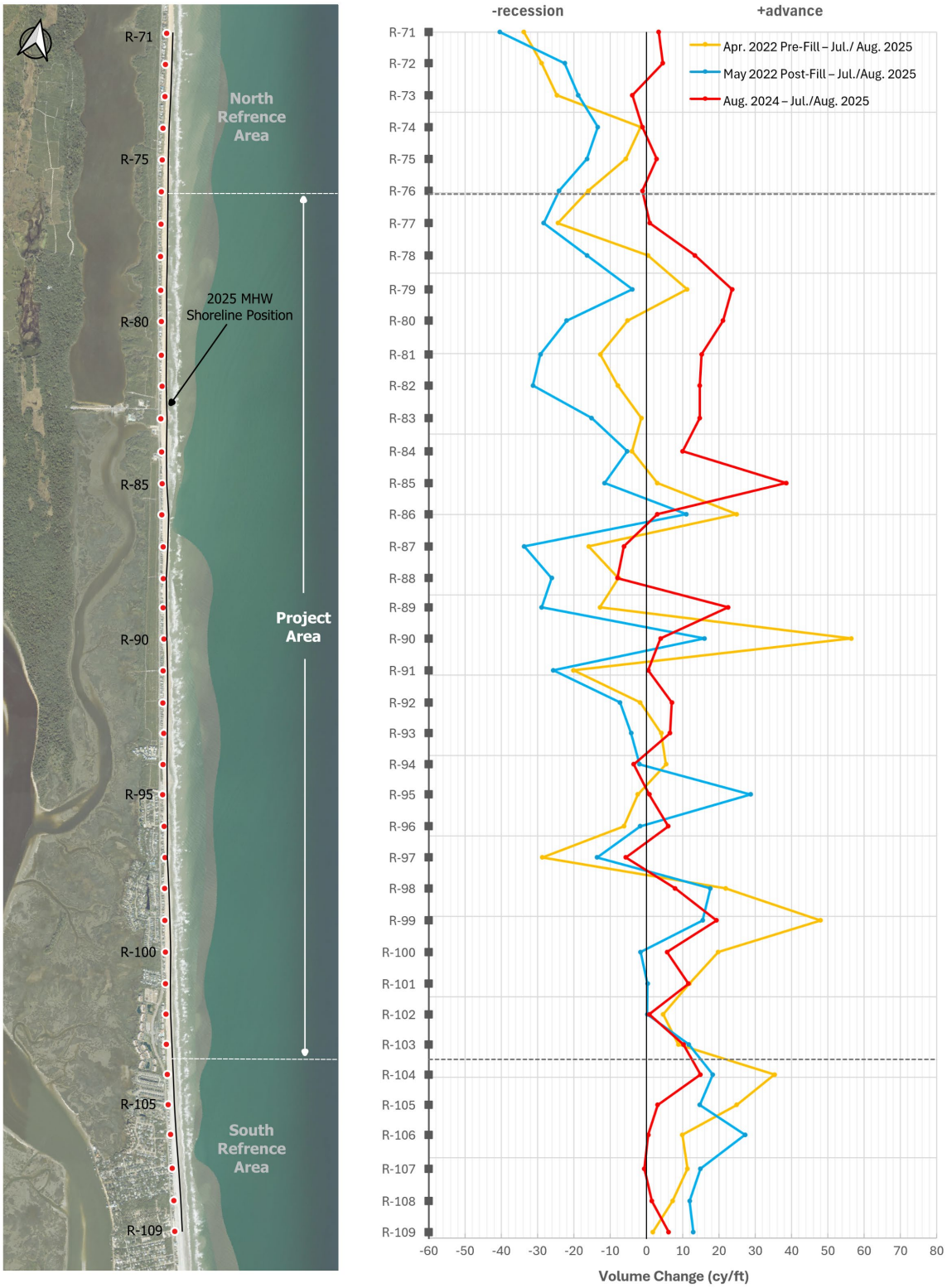


Figure 3.4. MHW to -20 ft NAVD88 Volume Changes.

Table 3.5. Below -20 ft NAVD88 Volume Changes.

Area	Monument	Volume Change (cy/ft)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	11.4	12.5	18.8
	R-72	-0.3	4.8	25.0
	R-73	18.5	21.3	15.4
	R-74	-8.9	-15.4	14.6
	R-75	-26.4	-31.6	5.6
	R-76	25.4	25.5	17.1
Fill Placement Area	R-77	14.2	16.0	15.7
	R-78	21.9	25.1	2.2
	R-79	30.1	26.8	24.8
	R-80	16.4	17.2	24.4
	R-81	16.6	6.3	17.2
	R-82	24.6	12.6	25.5
	R-83	31.4	23.3	24.9
	R-84	13.9	2.1	30.7
	R-85	2.6	-7.5	14.5
	R-86	49.3	42.0	40.1
	R-87	38.2	30.0	29.3
	R-88	-1.2	-10.1	-0.9
	R-89	-50.7	-58.2	-2.1
	R-90	-4.4	5.0	4.8
	R-91	-11.4	-4.9	-5.4
	R-92	2.1	2.7	-10.7
	R-93	34.1	37.0	19.5
	R-94	8.1	5.7	10.0
	R-95	-24.5	-12.0	-9.8
	R-96	13.3	30.7	27.4
	R-97	36.3	61.7	33.7
	R-98	67.7	44.8	69.2
	R-99	24.5	9.3	35.5
	R-100	19.1	4.2	50.6
	R-101	32.4	15.6	43.7
	R-102	38.9	30.8	41.5
	R-103	33.6	38.4	21.5
South Reference Area	R-104	-7.8	1.0	24.3
	R-105	-2.2	-23.1	28.5
	R-106	27.5	31.8	32.4
	R-107	25.2	41.5	18.1
	R-108	27.1	50.5	15.9
	R-109	33.6	56.2	26.0
Weighted Average (cy/ft)				
North Reference Area		1.6	1.1	16.0
Fill Placement Area		17.7	14.7	21.4
South Reference Area		17.7	27.2	24.1

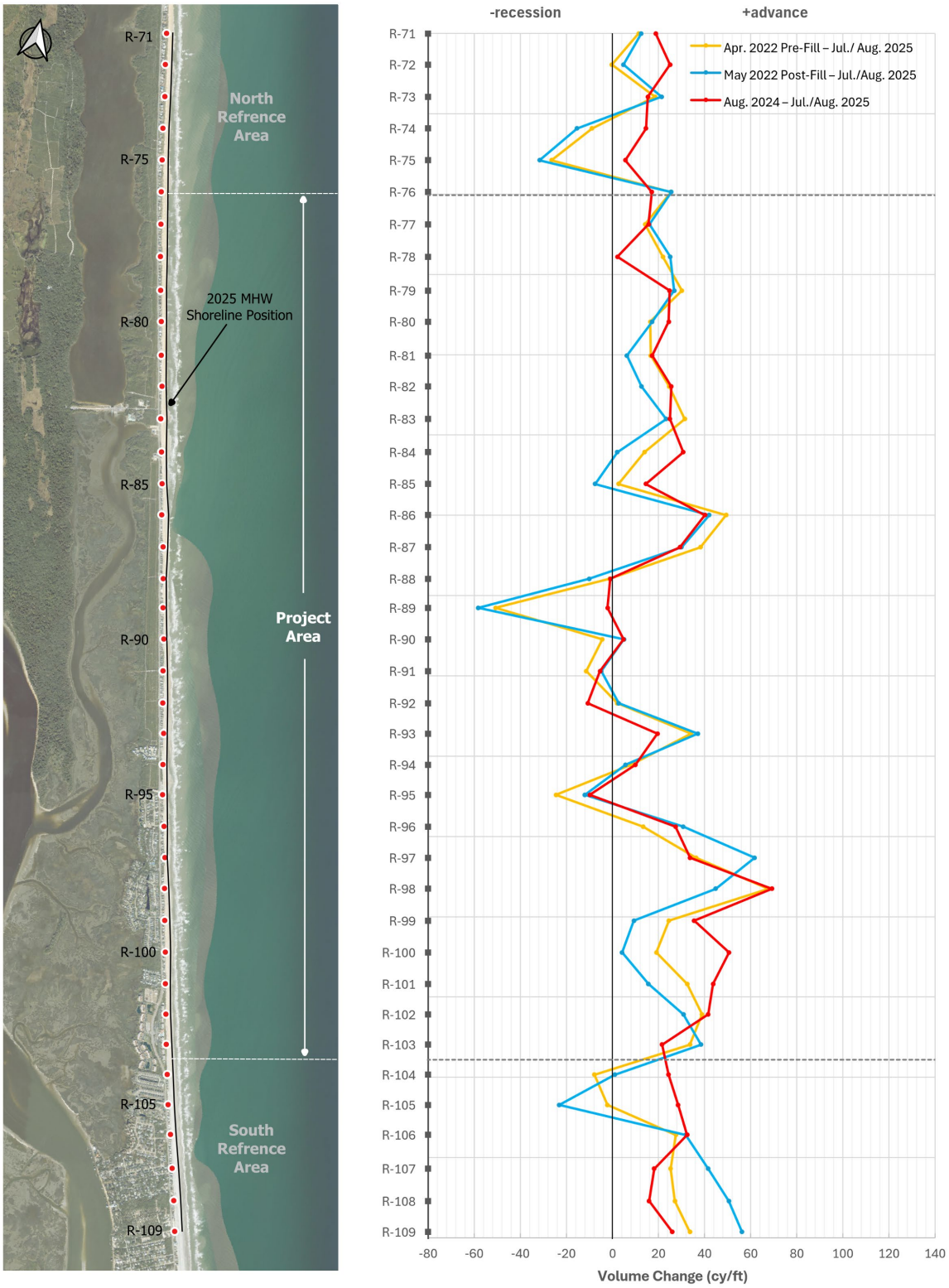


Figure 3.5. Below -20 ft NAVD88 Volume Changes.

Table 3.6. Total Volume Changes.

Area	Monument	Volume Change (cy/ft)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	-22.2	-28.0	27.2
	R-72	-28.2	-13.9	33.5
	R-73	-8.9	-1.2	14.3
	R-74	-7.1	-27.9	16.2
	R-75	-29.6	-48.0	9.5
	R-76	20.6	3.7	20.4
Fill Placement Area	R-77	-2.1	-12.7	18.1
	R-78	37.1	10.9	29.7
	R-79	55.4	21.3	51.6
	R-80	22.6	-5.6	45.9
	R-81	11.9	-33.3	31.5
	R-82	25.6	-24.5	42.7
	R-83	42.4	14.0	46.6
	R-84	25.5	5.6	44.1
	R-85	19.0	-21.5	62.0
	R-86	96.1	58.4	58.5
	R-87	42.5	-5.1	35.3
	R-88	-2.1	-52.7	-7.3
	R-89	-52.4	-108.7	26.4
	R-90	64.3	-1.1	9.7
	R-91	-21.3	-45.0	-1.8
	R-92	12.9	-13.0	3.9
	R-93	51.8	22.3	35.0
	R-94	25.5	-9.6	12.3
	R-95	-21.0	-2.5	-8.4
	R-96	12.9	10.2	39.2
	R-97	5.9	24.3	33.8
	R-98	93.1	53.6	90.2
	R-99	85.5	20.8	64.1
	R-100	48.3	-3.5	63.5
	R-101	62.1	15.9	64.0
	R-102	60.4	25.2	48.6
	R-103	67.8	64.0	40.7
South Reference Area	R-104	54.3	44.2	42.6
	R-105	47.9	10.6	34.6
	R-106	73.2	90.4	31.6
	R-107	74.0	91.1	17.4
	R-108	66.9	92.9	17.0
	R-109	65.6	96.3	25.9
Weighted Average (cy/ft)				
North Reference Area		-14.8	-20.8	20.1
Fill Placement Area		31.8	0.2	36.1
South Reference Area		64.0	71.9	27.9

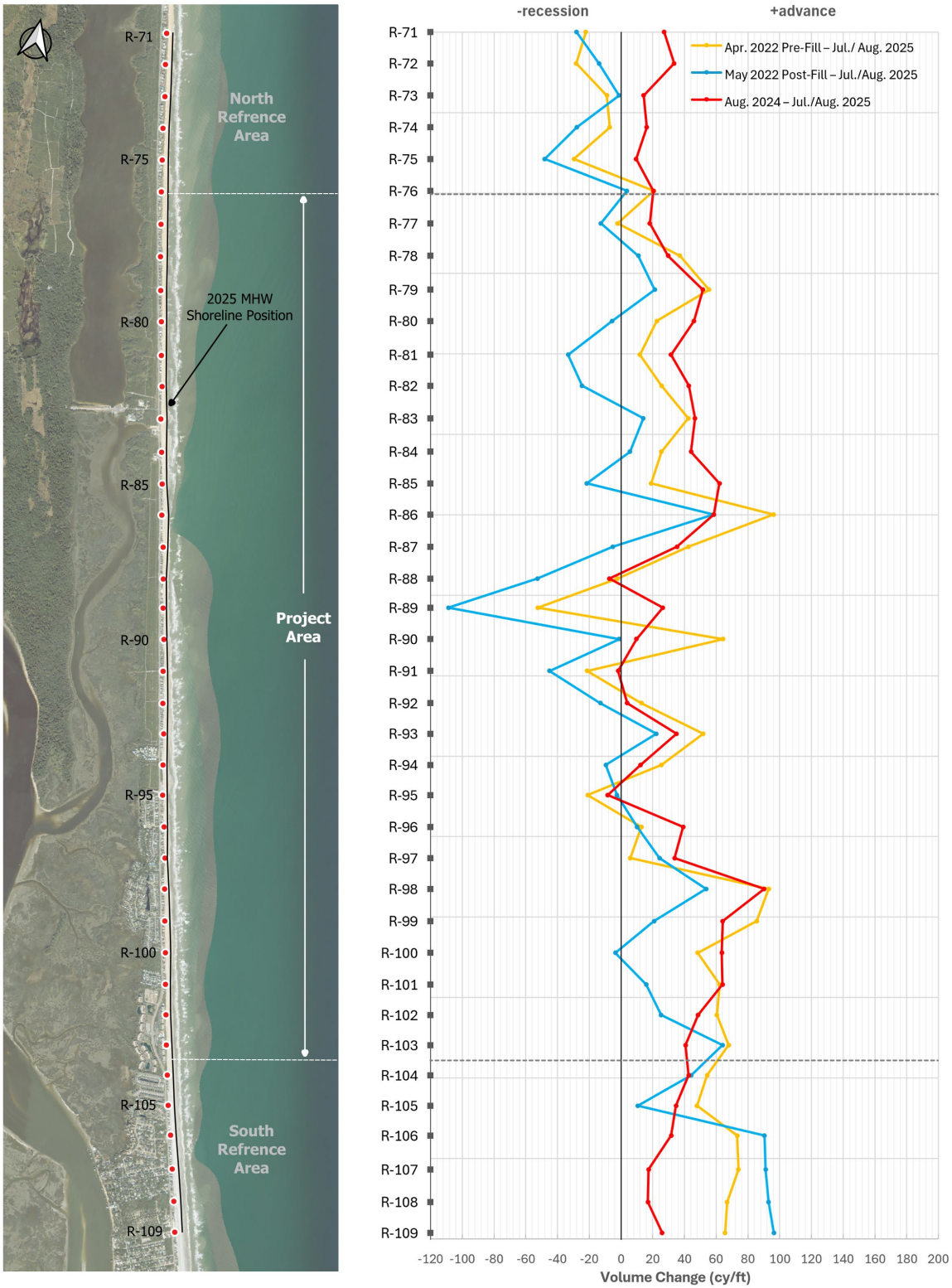


Figure 3.6. Total Volume Changes.

Table 3.7. Volume Change Summary.

Area	Volume Compartment	2022 Pre-Fill – 2025 Year-Three		2022 Post-Fill – 2025 Year-Three		2024 Year-Two – 2025 Year-Three	
		cy/ft	cy	cy/ft	cy	cy/ft	cy
North Reference Area	Above MHW	2.0	11,462	0.4	2,248	3.3	18,754
	MHW to -20 ft NAVD88	-18.5	-106,398	-22.3	-128,481	0.9	4,926
	Below -20 ft NAVD88	1.6	9,357	1.1	6,575	16.0	92,099
	Total	-14.8	-85,579	-20.8	-119,658	20.1	115,780
Fill Placement Area	Above MHW	11.9	338,045	-6.5	-183,985	6.1	174,380
	MHW to -20 ft NAVD88	2.1	60,708	-8.1	-229,454	8.6	245,086
	Below -20 ft NAVD88	17.3	503,415	14.7	418,040	21.4	606,174
	Total	31.8	902,168	0.2	4,602	36.1	1,025,640
South Reference Area	Above MHW	31.5	195,887	28.1	174,925	-0.3	-2,031
	MHW to -20 ft NAVD88	14.7	91,765	16.7	103,666	4.1	25,794
	Below -20 ft NAVD88	17.7	110,409	27.2	169,088	24.1	150,144
	Total	64.0	398,061	71.9	447,679	27.9	173,907

Table 3.8. Current Fill Template Capacity.

Monument	Volume (cy)	Volume (cy/ft)	Monument	Volume (cy)	Volume (cy/ft)
R-77	2	0.0	R-91	19,740	18.8
R-78	841	0.8	R-92	11,327	11.0
R-79	5,784	5.4	R-93	13,713	13.6
R-80	3,468	3.3	R-94	17,087	17.0
R-81	12,451	11.7	R-95	22,589	22.2
R-82	15,748	15.1	R-96	19,637	19.0
R-83	556	0.5	R-97	27,633	27.1
R-84	1,471	1.4	R-98	8,041	7.8
R-85	10,156	9.8	R-99	2,373	2.3
R-86	6,662	6.4	R-100	4,066	3.9
R-87	4,009	3.8	R-101	1,255	1.2
R-88	24,794	24.8	R-102	5,323	5.3
R-89	24,874	25.1	R-103	0	0.0
R-90	30,457	29.4	-	-	-
Total Fill Capacity = 294,056 cy (10.4 cy/ft)					

4.0 Summary

This monitoring report documents the conditions and performance of SPVB Restoration Project three years following construction.

Compared to 2022 pre-project conditions, the 2025 year-three post-fill survey indicates the MHW shoreline advanced 37.7 ft, on average. The project area from the dune to approximately -40 ft NAVD88 accreted 902,168 cy (31.8 cy/ft), approximately 37,346 cy more than the 864,822-cy total fill volume placed by regional projects — including 733,122 cy from the SPVB project, 48,100 cy from the FEMA project, 2,300 cy from the SPV Park project, and 81,300 cy from the 2023 CSRM project. With 338,045 cy (11.9 cy/ft) accretion occurring above MHW, 60,708 cy (2.1 cy/ft) occurring between MHW and -20 ft NAVD88, and 503,415 cy (17.7 cy/ft) occurring below -20 ft NAVD88, approximately 46% of the placed fill volume remains above -20 ft NAVD88 while the remainder deposited further offshore, likely through storm-induced cross-shore transport from the numerous hurricanes and nor'easters that affected the project during the monitoring period (particularly hurricanes Ian and Nicole in 2022, severe nor'easters in 2023, and Helene and Milton in 2024). The large quantity of sand introduced into the littoral zone by the 2021 CSRM project potentially contributed to the surplus of sand. The north reference area eroded -85,579 cy (-14.8 cy/ft), whereas the south reference area accreted 398,061 cy (64.0 cy/ft), largely due to the CSRM project.

Since project construction, the project area's shoreline has experienced dynamic changes throughout the project area, ranging from 65.9 ft advance to -68.4 ft retreat, but averaged only -8.4 ft retreat. Shoreline retreat occurred contiguously in the south-central region from R-88 to R-98 (-31.8 ft on average), while shoreline advance predominantly occurred north (8.1 ft on average) and south (3.6 ft on average) of this segment. The volume changes above MHW resemble the shoreline changes, with erosion dominating the south-central region. Between MHW and -20 ft NAVD88 erosion dominated the north and central regions while accretion dominated the southern end, and accretion occurred everywhere below -20 ft NAVD88. Overall, the project area accreted 4,602 cy (0.2 cy/ft), with the combined erosion magnitudes above MHW (-183,985 cy or -6.5 cy/ft) and between MHW and -20 ft NAVD88 (-229,454 cy or -8.1 cy/ft) balancing the accretion magnitude below -20 ft NAVD88 (418,040 cy or 14.7 cy/ft). The north reference area eroded -119,658 cy (-20.8 cy/ft).

Over the past year (August 2024 – July/August 2025), the MHW shoreline advanced at nearly every monument, with an average advance across the project area of 20.8 ft. Throughout the entire survey area (i.e., dune to approximately 2,500-3,000 ft offshore), the project area gained 1,025,640 cy (36.1 cy/ft), with 174,380 cy (6.1 cy/ft) accretion occurring above MHW, 245,086 cy (8.6 cy/ft) occurring between MHW and -20 ft NAVD88, and 606,174 cy (21.4 cy/ft) occurring below -20 ft NAVD88. Accretion occurred at nearly every monument within each volume compartment. The north and south reference areas also accreted a substantial amount (20.1 cy/ft and 27.9 cy/ft), though not as much as the project area.

A comparison of the fill template to the July/August 2025 conditions reveals a fill capacity of 294,056 cy, with the greatest need for nourishment (211,851 cy or 20.8 cy/ft) extending from R-88 to R-97. The significant MHW shoreline recession (-43.2 ft on average) in this stretch of beach also reveals its vulnerability relative to the more stable segments to the north and south. Of note, the monitoring

results do not capture the significant erosion that has occurred during late summer and early fall 2025 from persistent nor'easter conditions and high seasonal tides. Therefore, the required nourishment volume has likely increased significantly since the survey analyses and writing of this report.

The results of this monitoring study support the County's current plan to construct the first full-scale nourishment of the SPVB project area in 2026.

5.0 References

Atkins. 2022a. *2022 South Ponte Vedra Beach Dune Restoration Project Final Certification/ Final Report, St. Johns County, Florida*. Jacksonville, FL.

Atkins. 2022b. *South Ponte Vedra Beach Dune Restoration Construction Drawings, St. Johns County, FL*. Jacksonville, FL.

Taylor Engineering. 2023. *South Ponte Vedra Dune Restoration Project 2023 Year One Post-Construction Physical Monitoring Report*. Jacksonville, FL.

USACE. 2024a. *St. Johns County Coastal Storm Risk Management Project South Ponte Vedra and Vilano Beach Bureau of Ocean Energy Management Project Completion Report for the 2023/2024 Nourishment Project*. USACE Jacksonville District, Jacksonville, FL.

USACE. 2024b. *St. Johns County Coastal Storm Risk Management Project: South Ponte Vedra Vilano Beach 2023/2024 Physical Monitoring Report*. USACE Jacksonville District, Jacksonville, FL.

APPENDIX A

PHOTO-DOCUMENTATION OF EXISTING CONDITIONS ON 9/24/2025



Figure A.1. Conditions North of R-83.2 on 9/24/2025.



Figure A.2. Conditions South of R-83.2 on 9/24/2025.



Figure A.3. Conditions North of R-94.75 on 9/24/2025.



Figure A.4. Conditions South of R-94.75 on 9/24/2025.



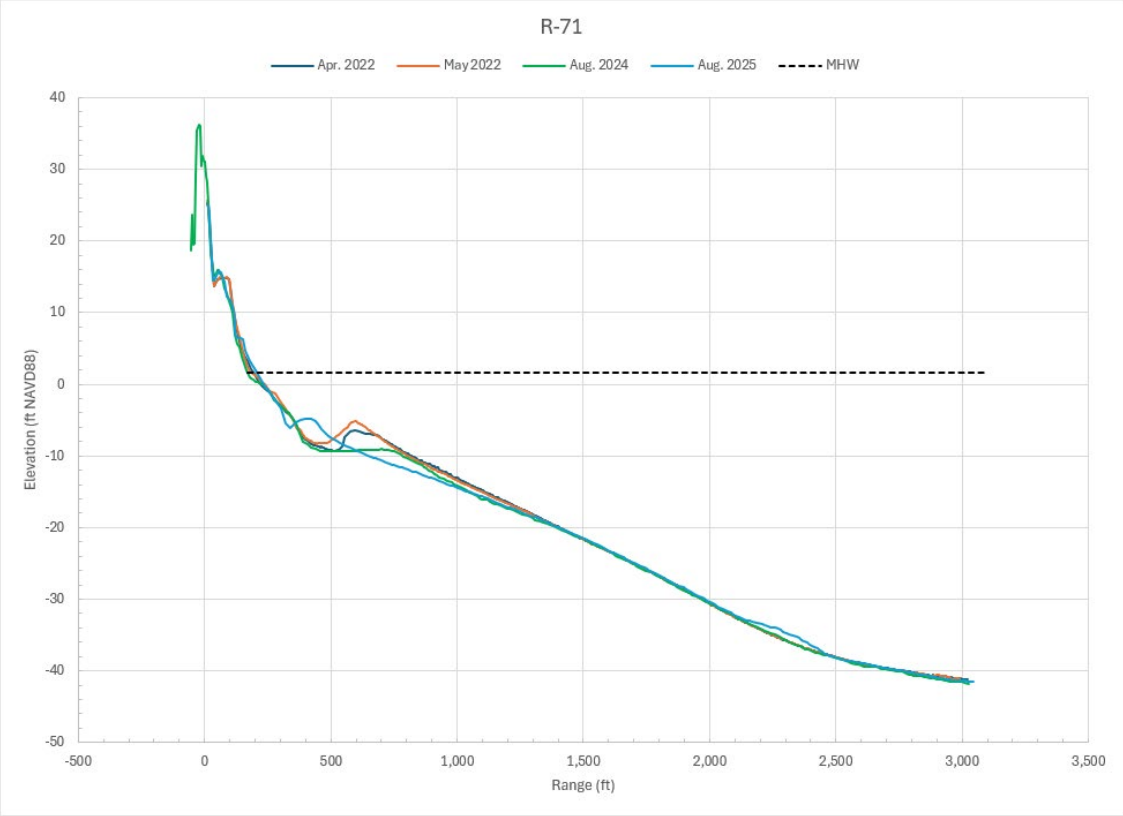
Figure A.5. Conditions North of R-108.7 on 9/24/2025.

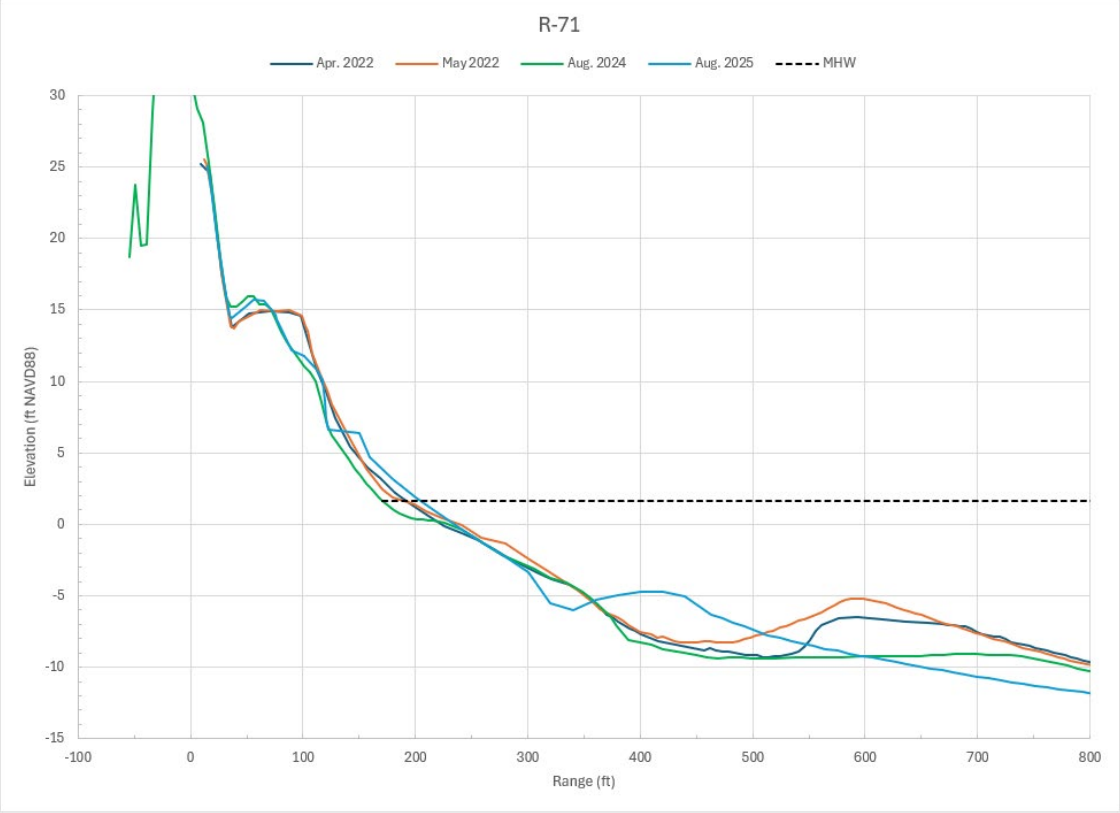


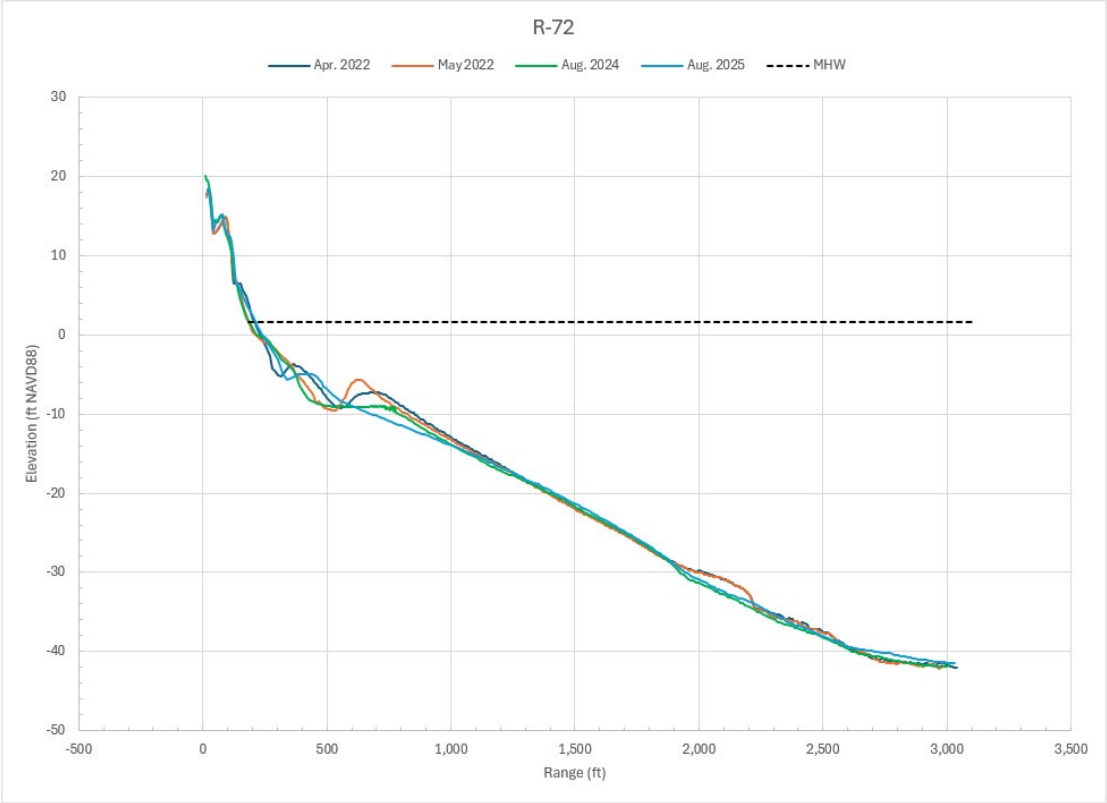
Figure A.6. Conditions South of R-108.7 on 9/24/2025.

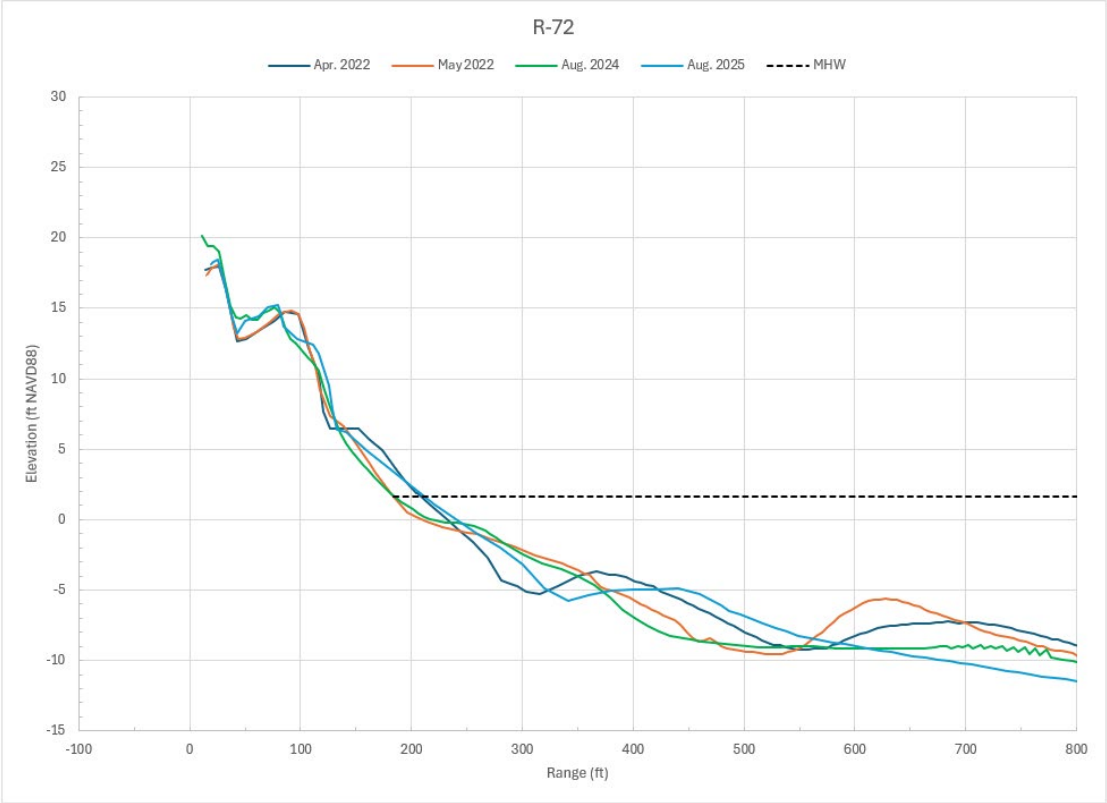
APPENDIX B

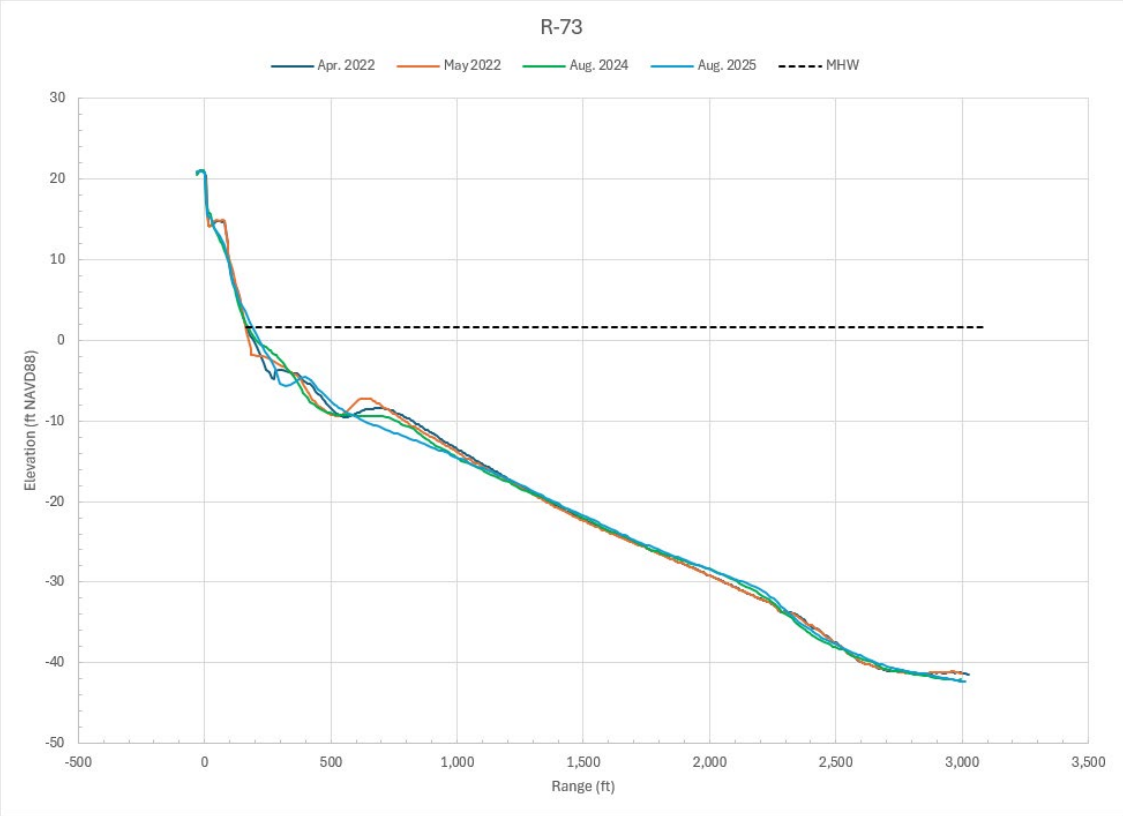
BEACH PROFILE PLOTS

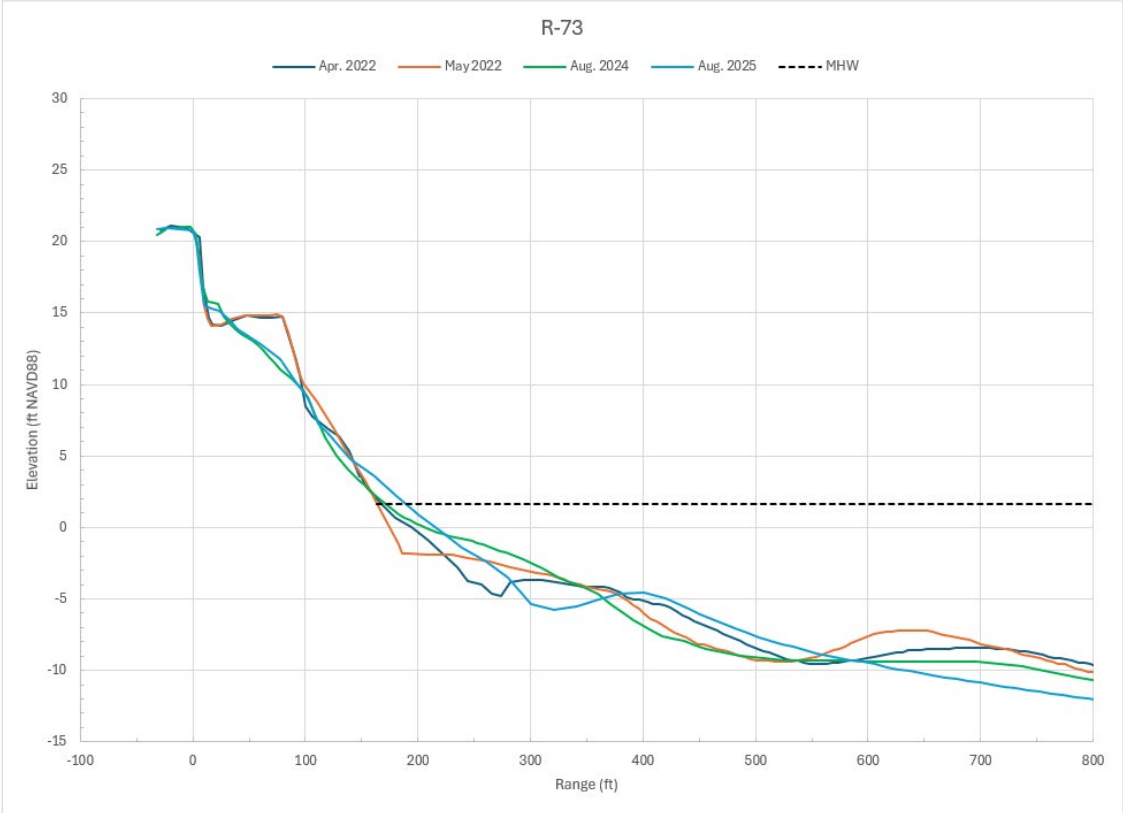

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Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

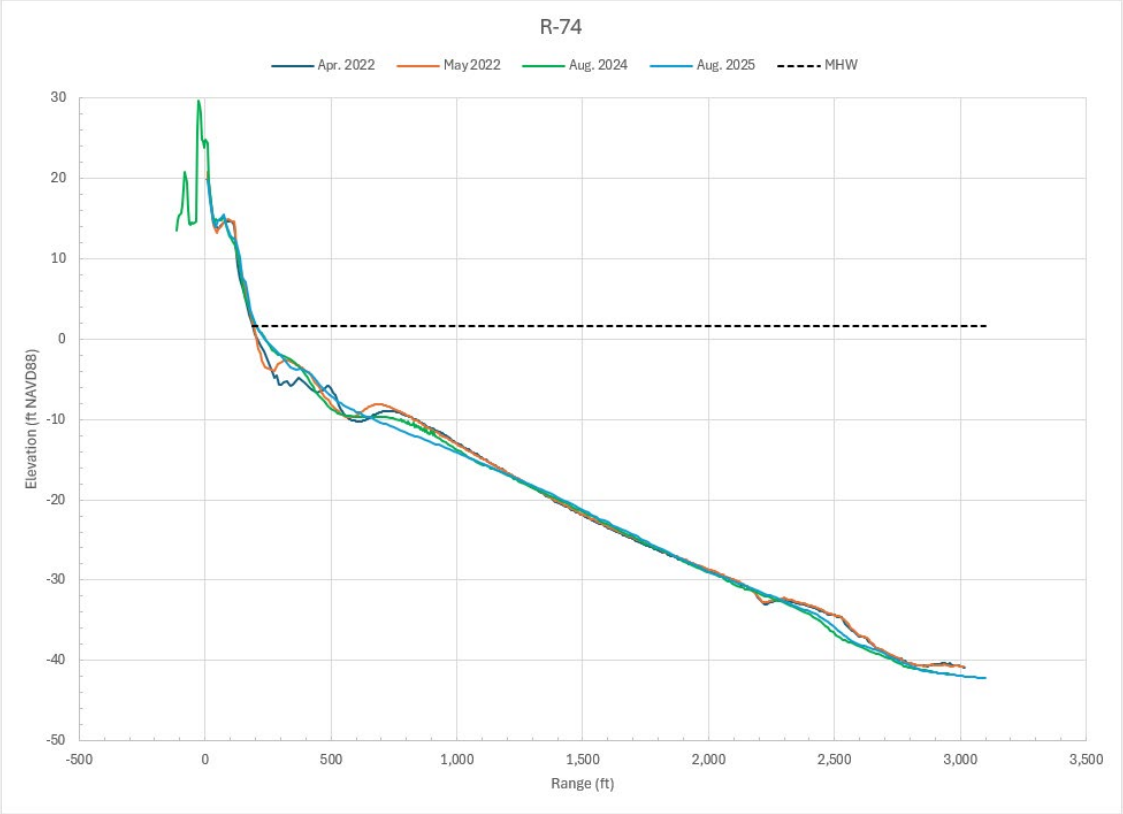

R-71
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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

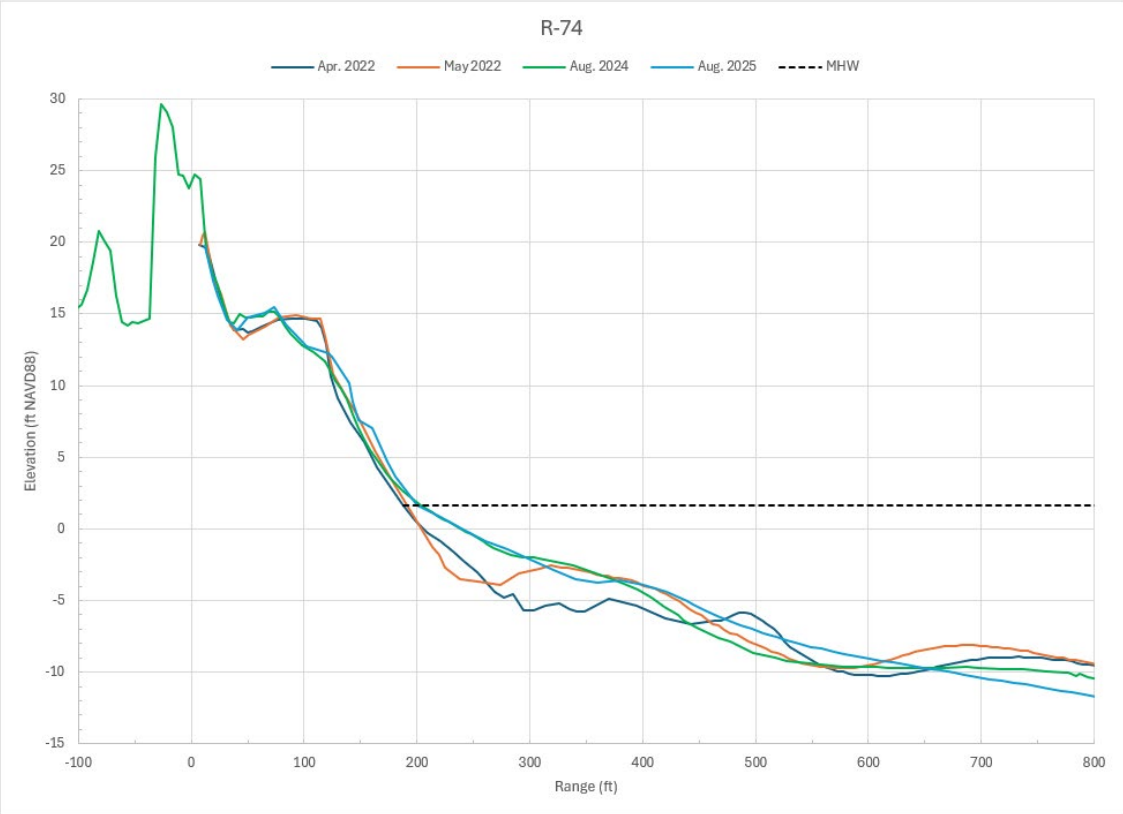

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
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3,500

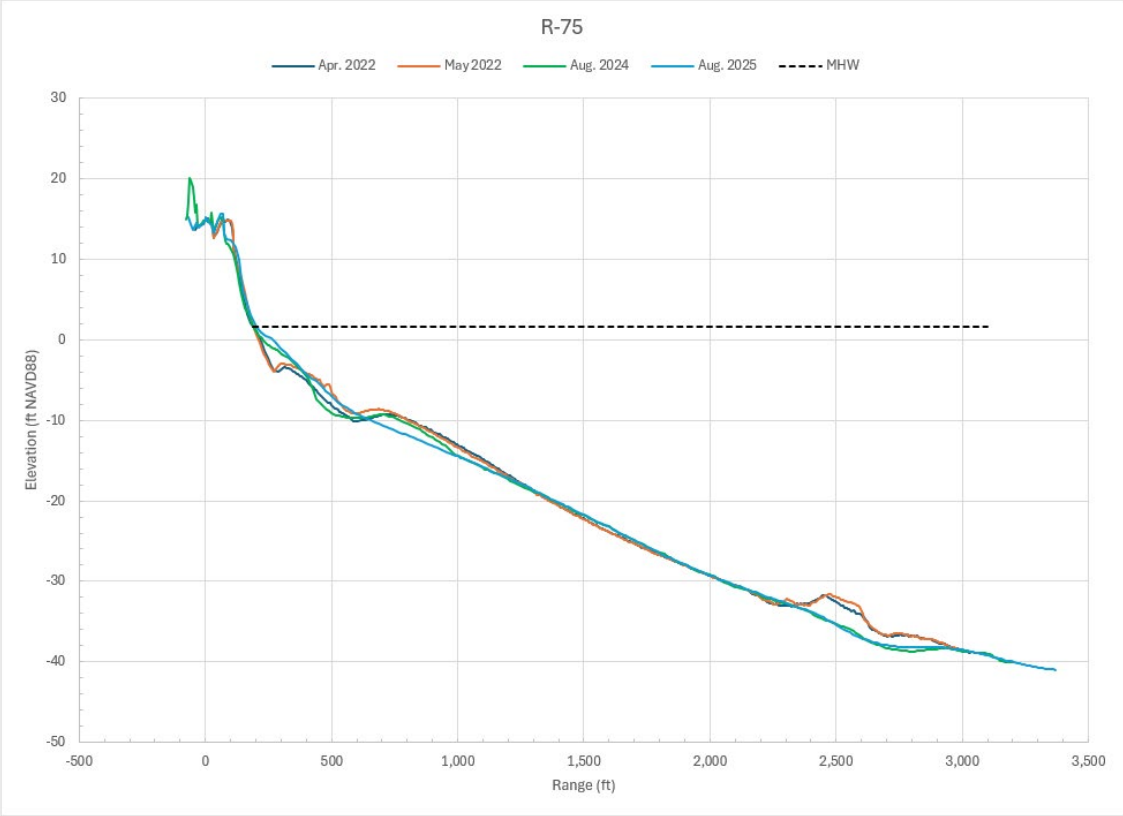

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
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100
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500
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700
800

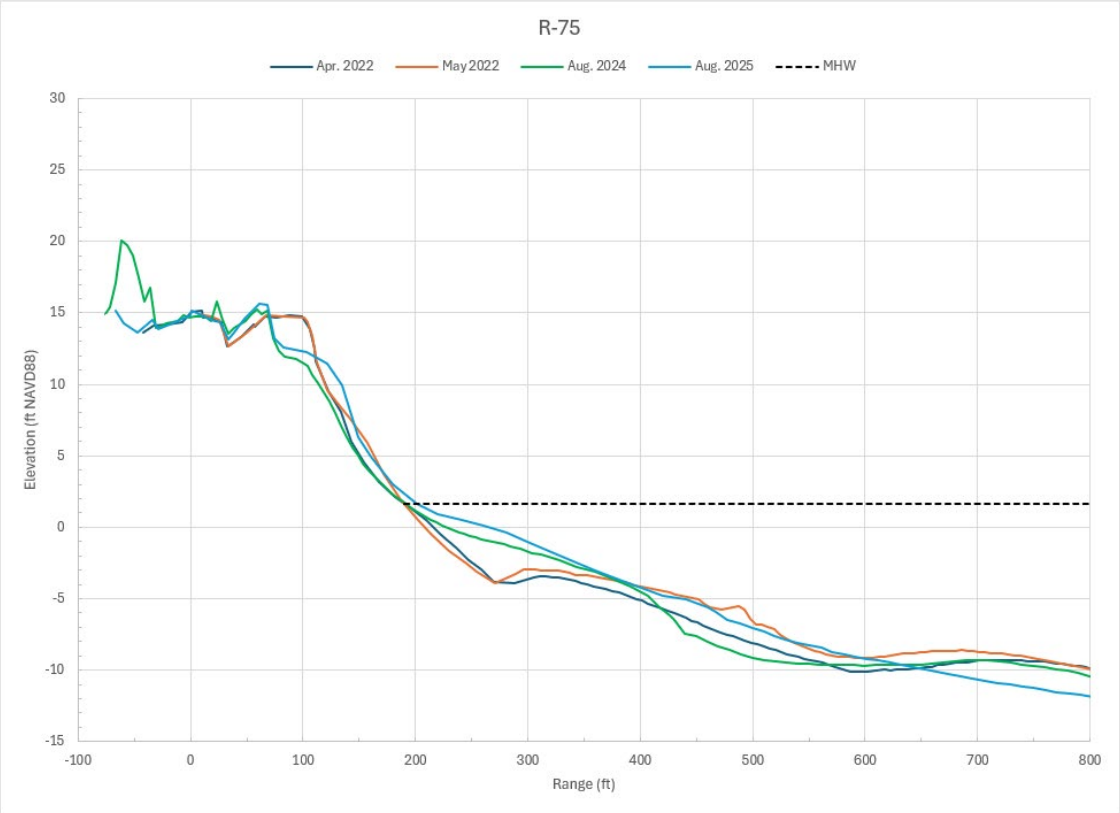

R-73
Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
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3,500

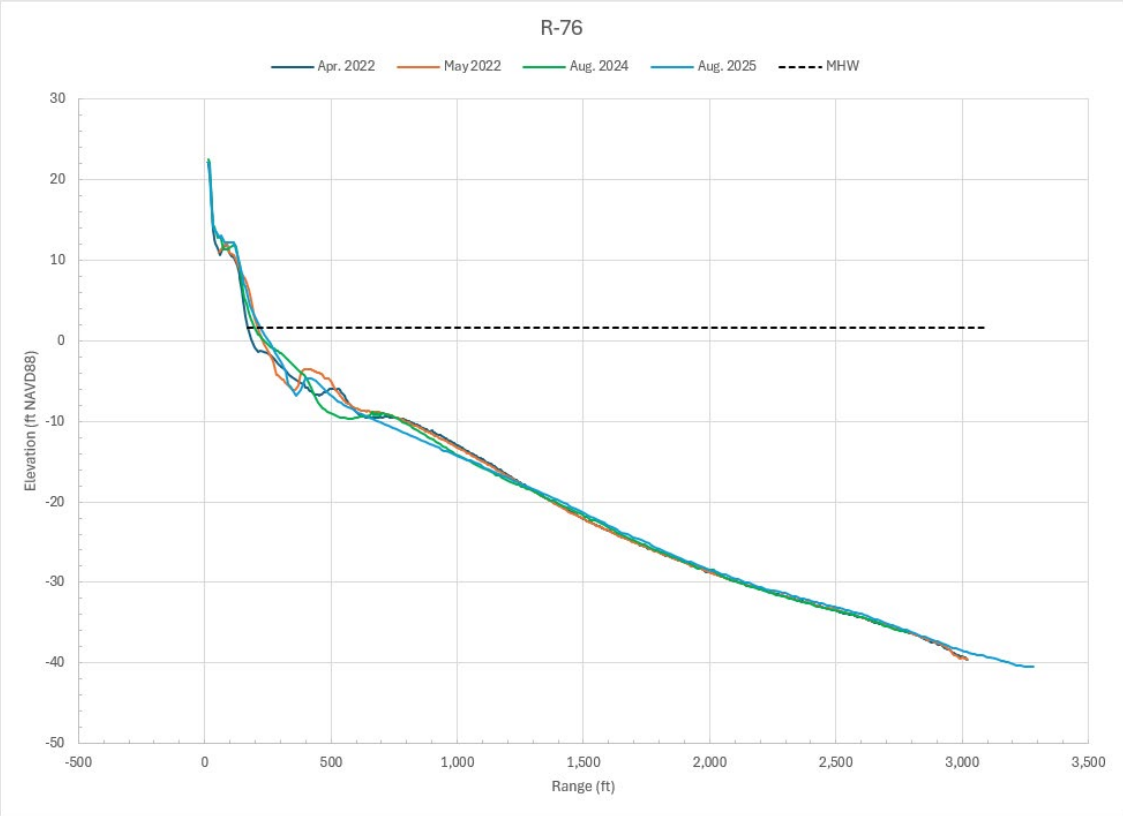

R-73
Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
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0
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200
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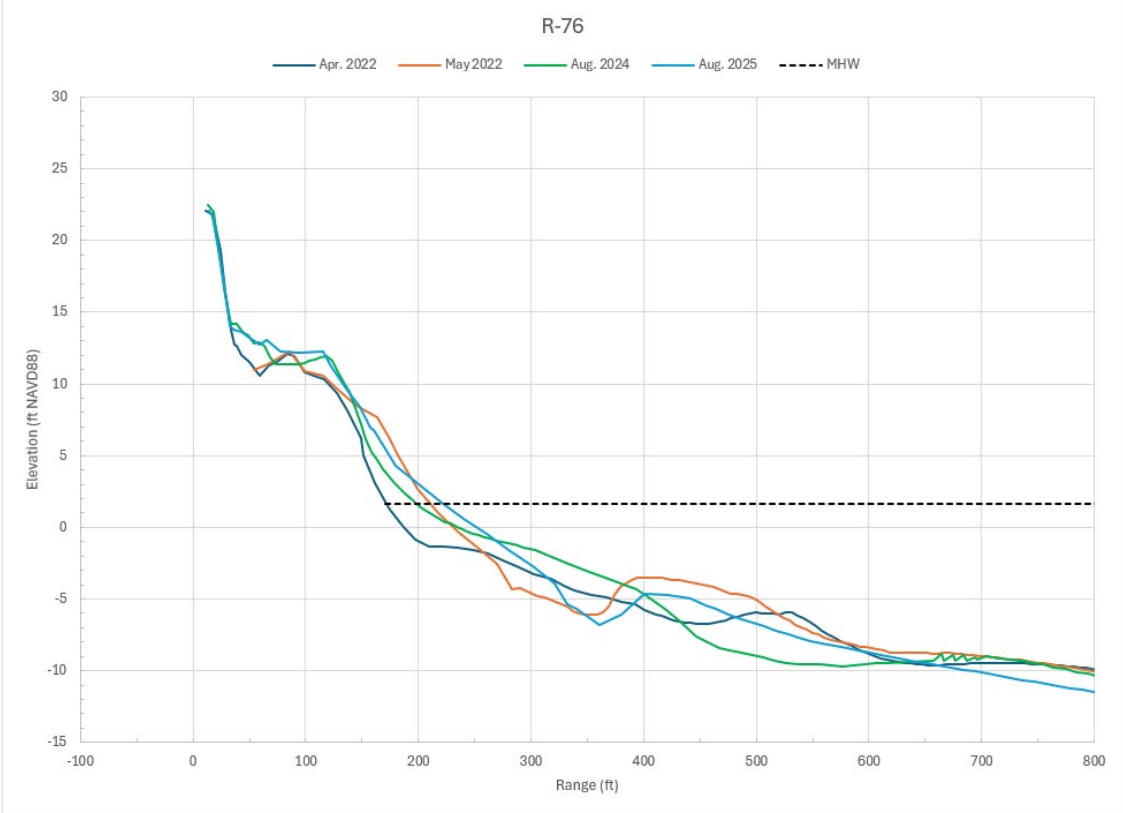

R-74
Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

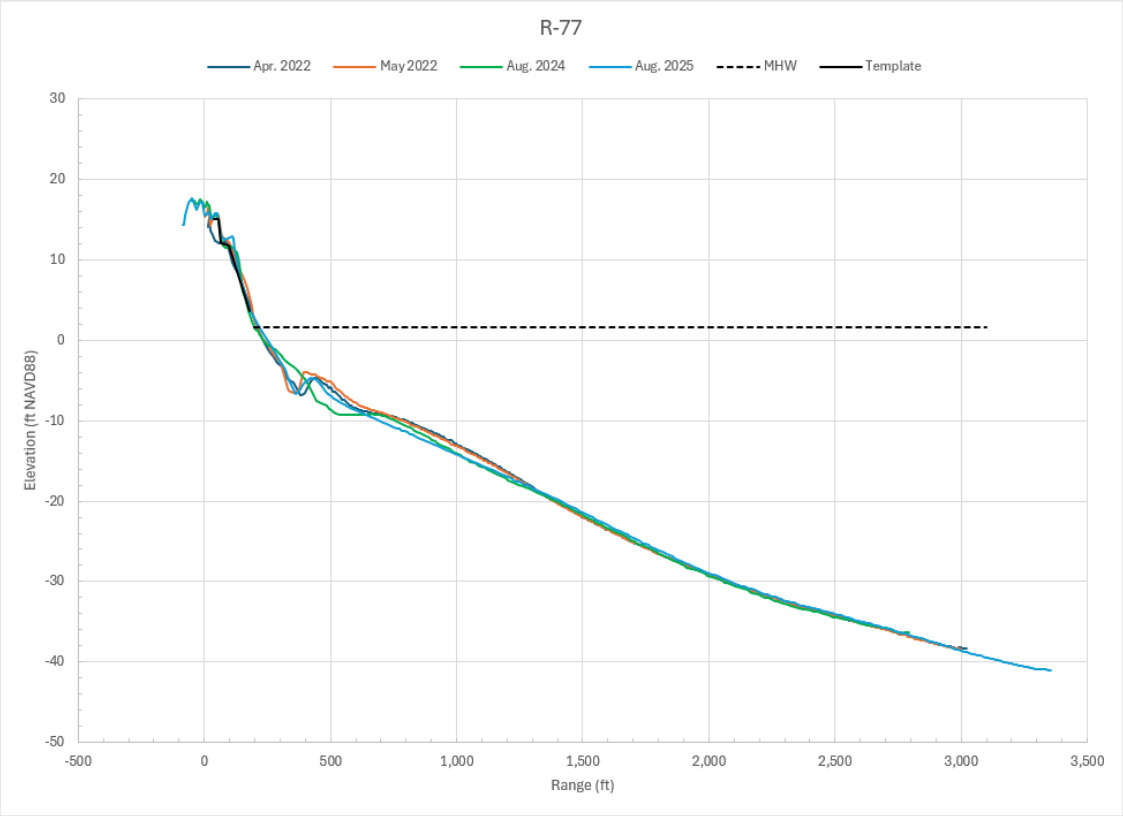

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

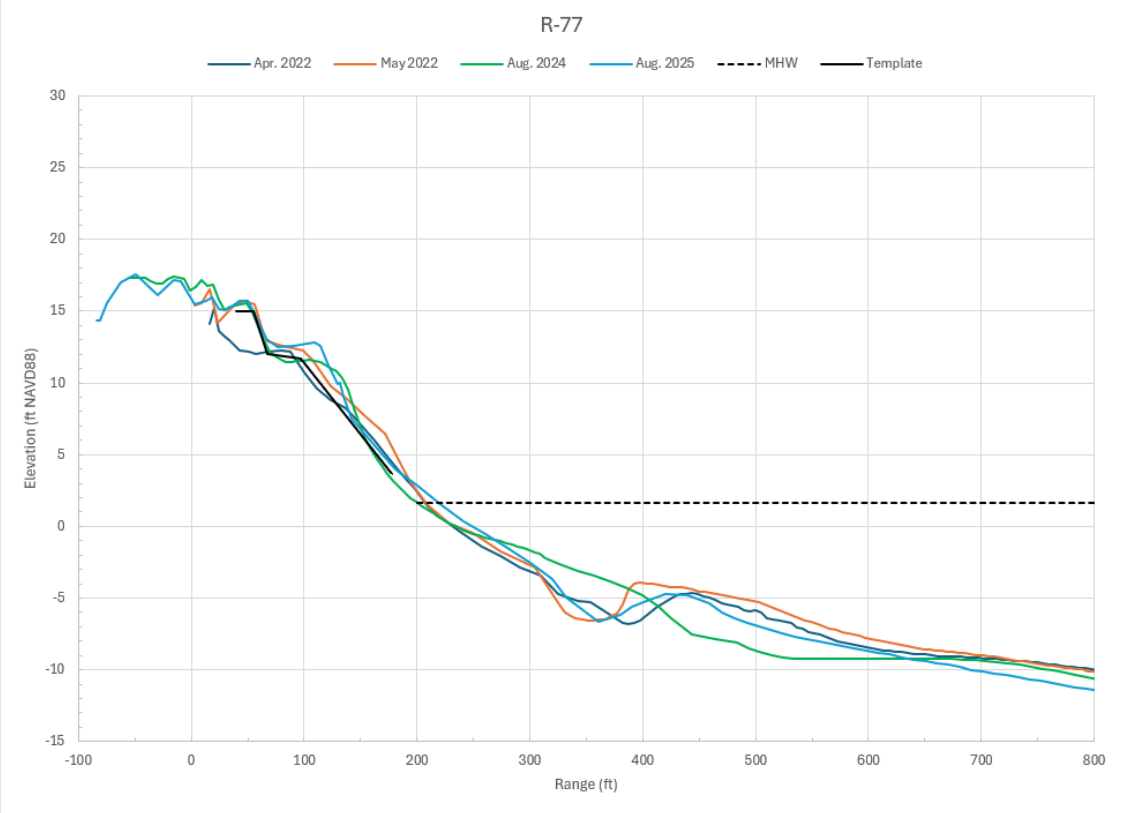

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Aug. 2025
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Elevation (ft NAVD88)
Range (ft)

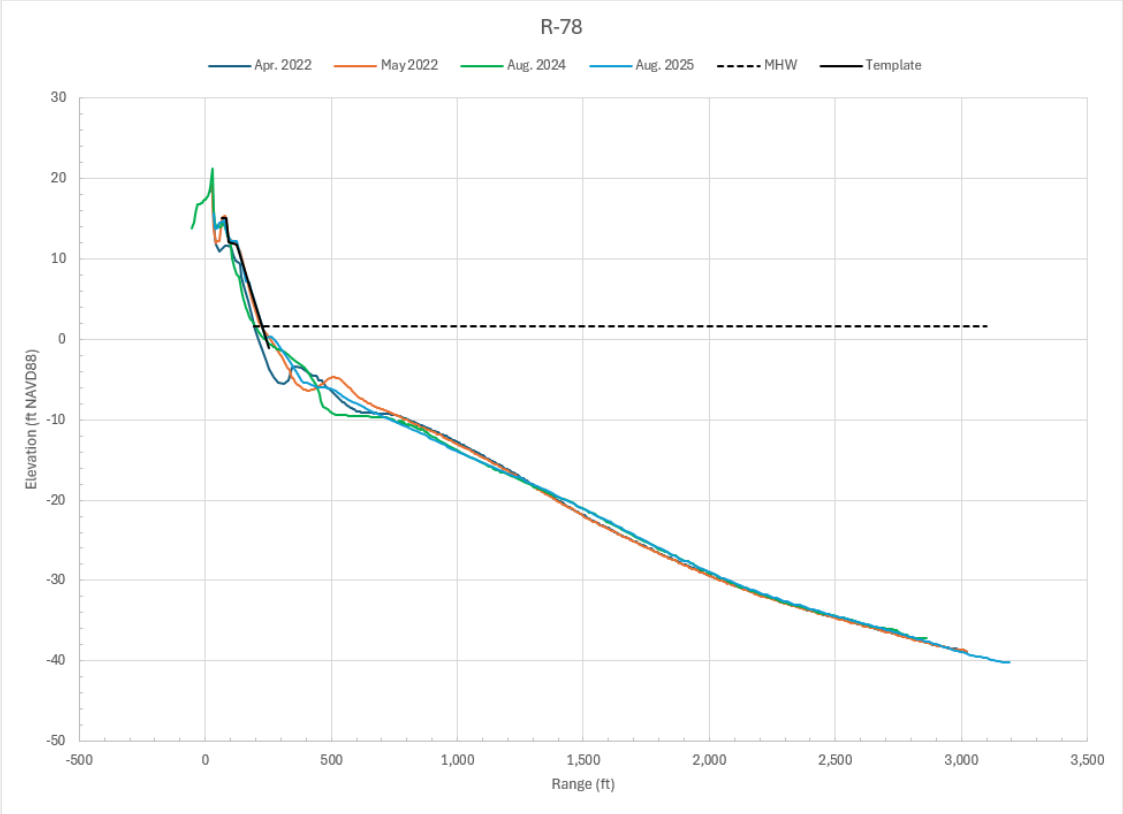

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

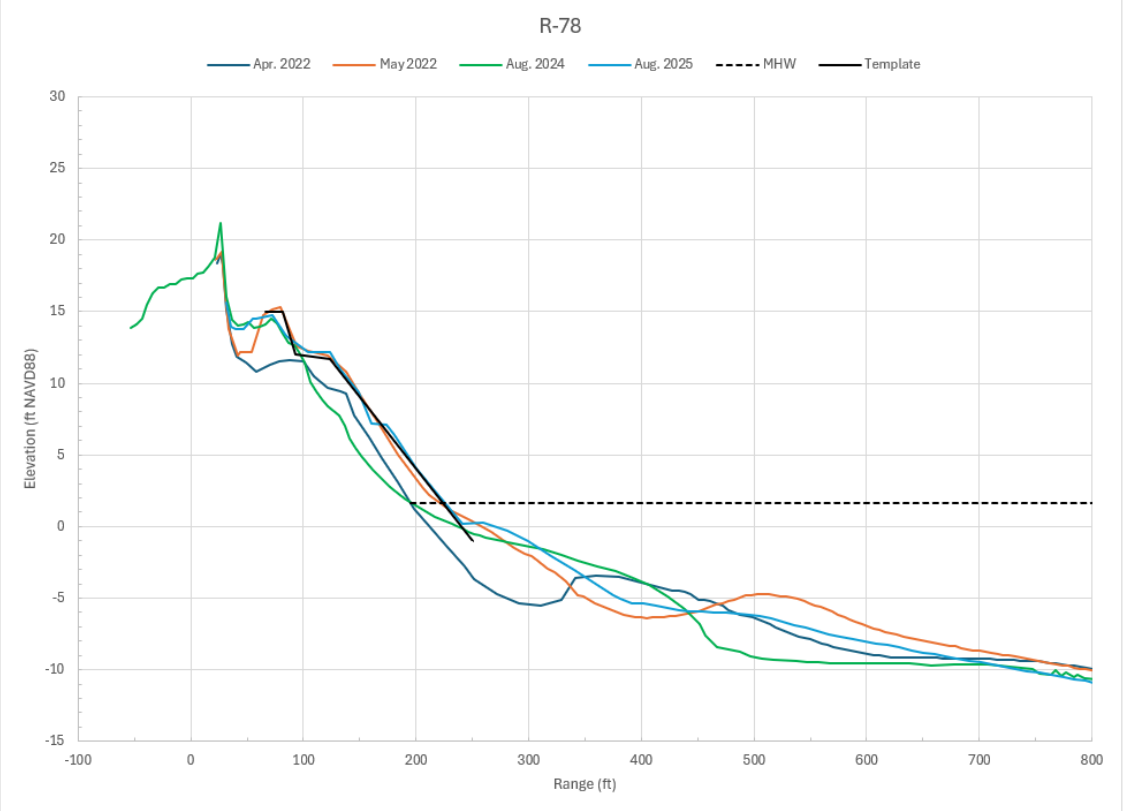

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

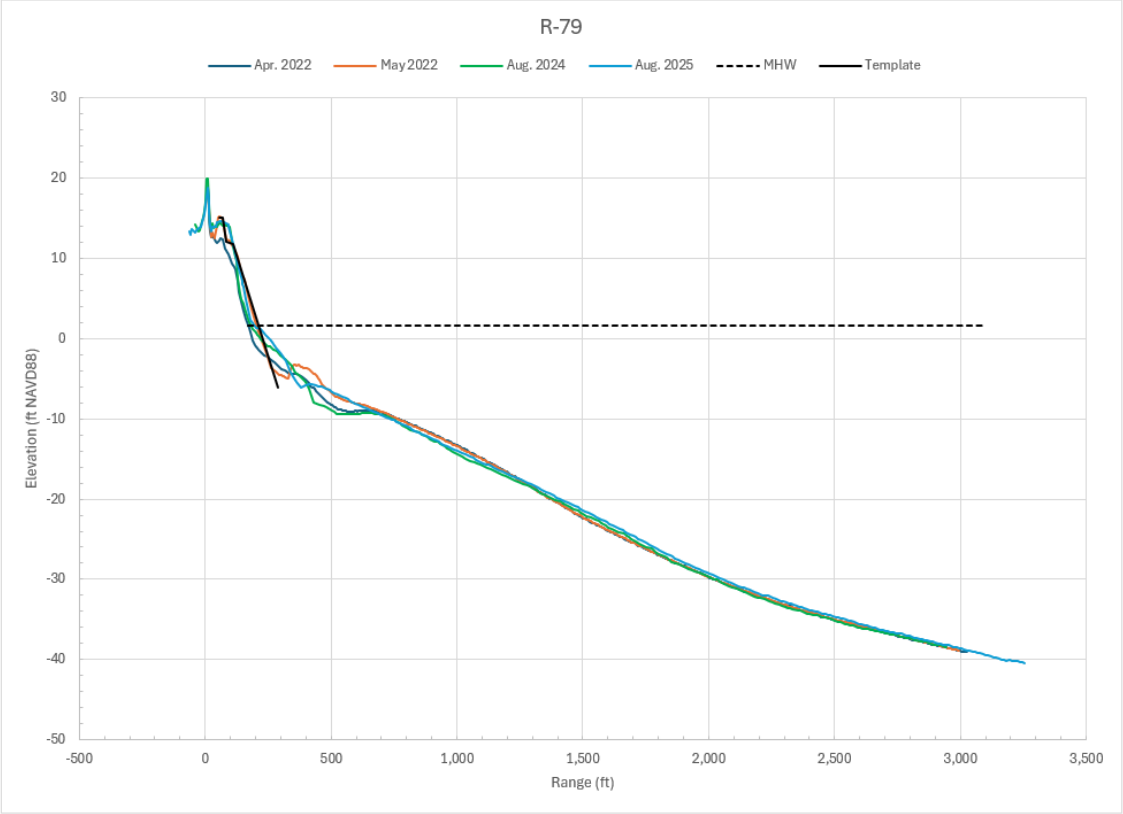

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May 2022
Aug. 2024
Aug. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

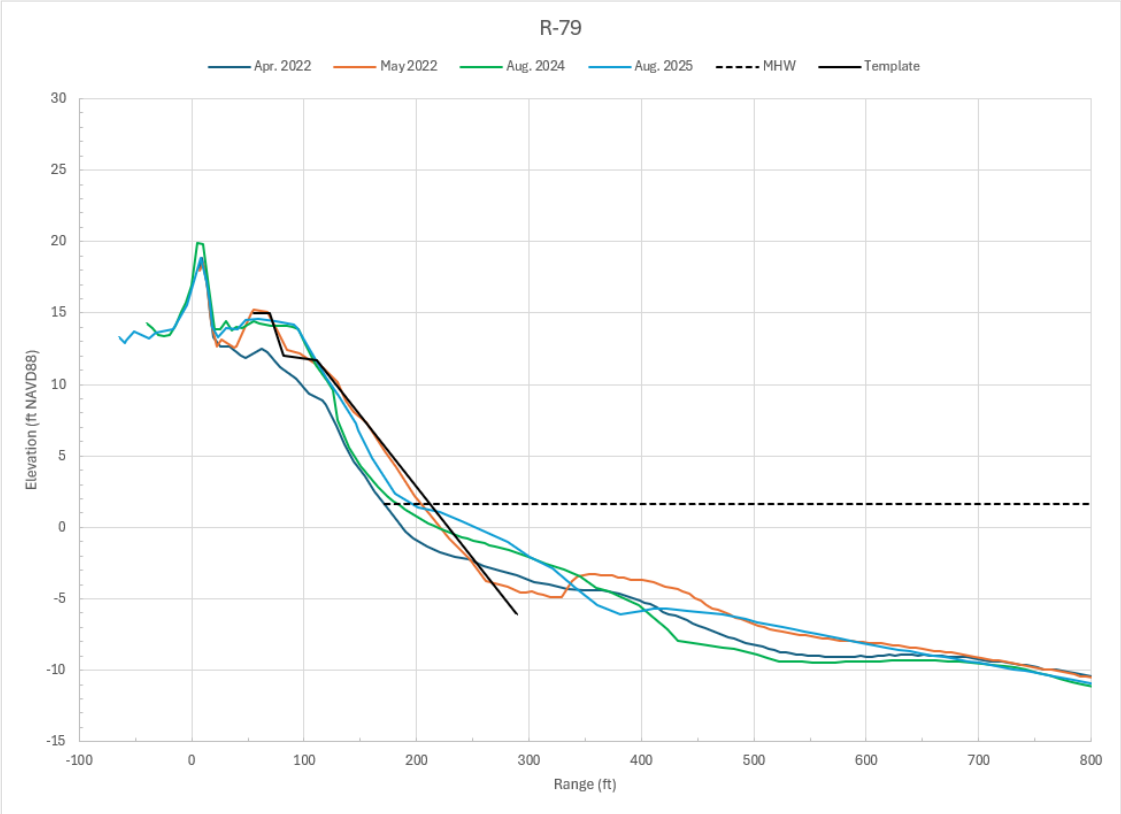

R-77
Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

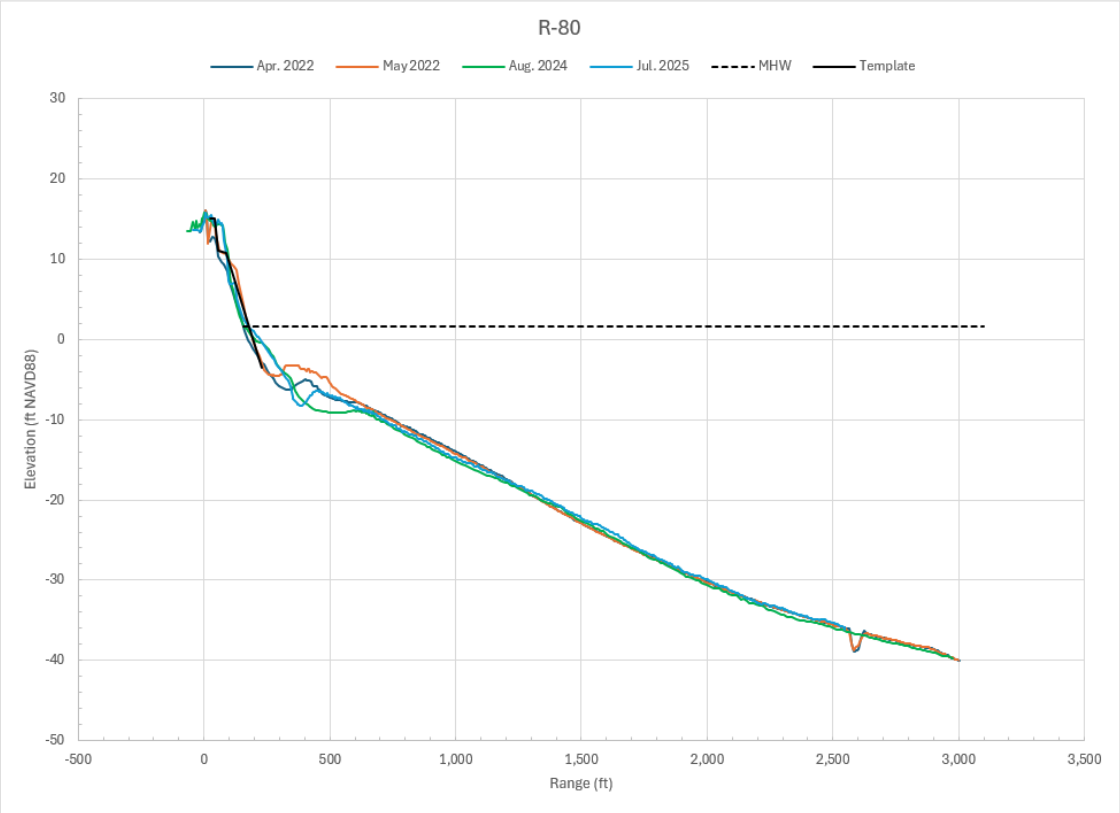

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Aug. 2024
Aug. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

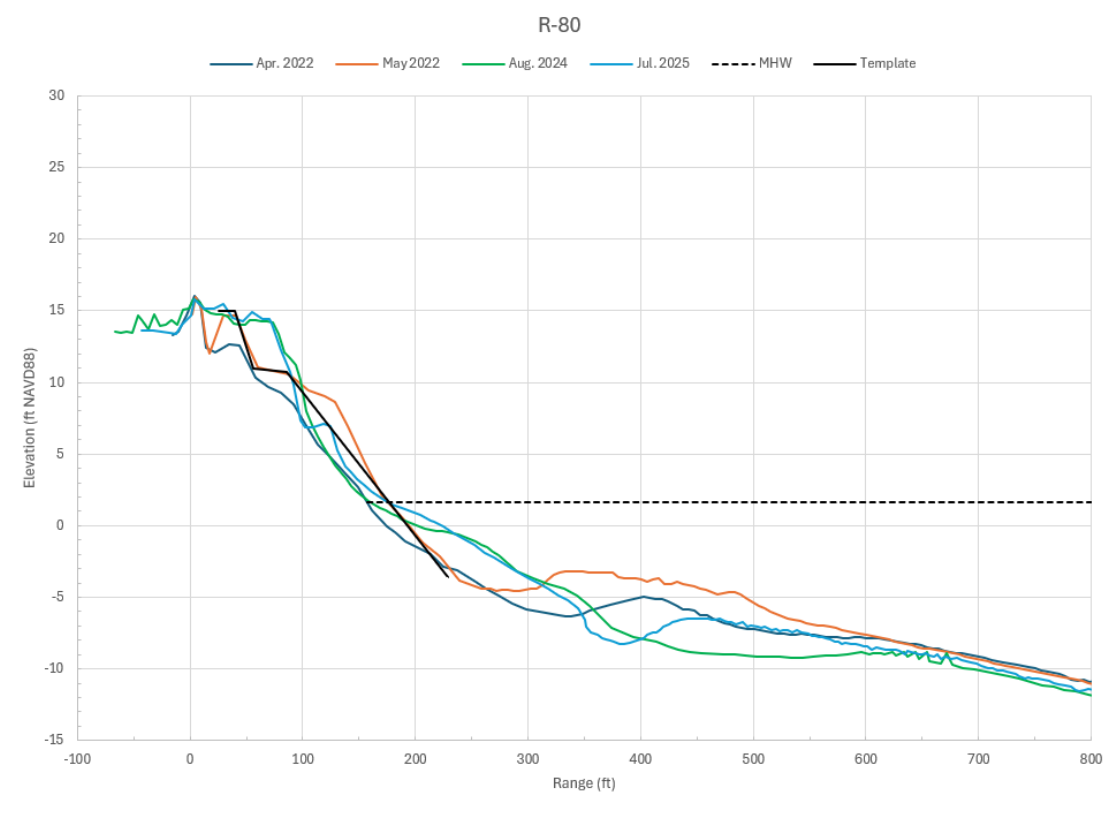

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May 2022
Aug. 2024
Aug. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
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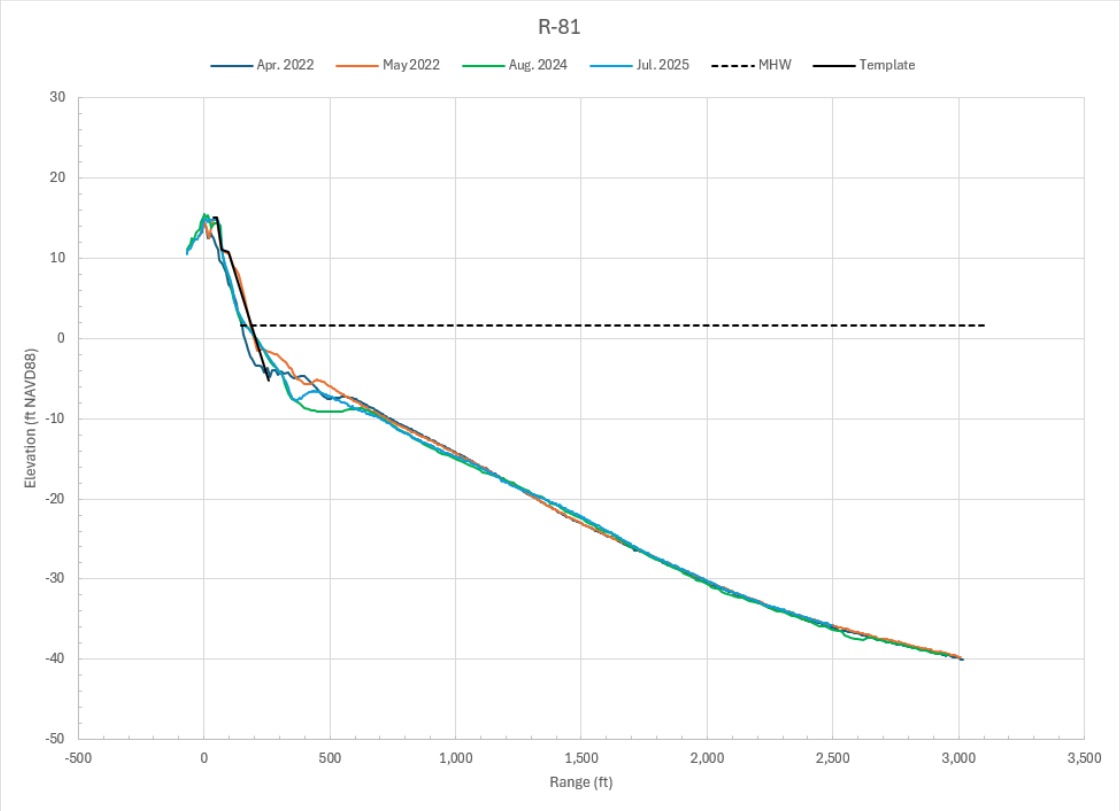

R-78
Apr. 2022
May 2022
Aug. 2024
Aug. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
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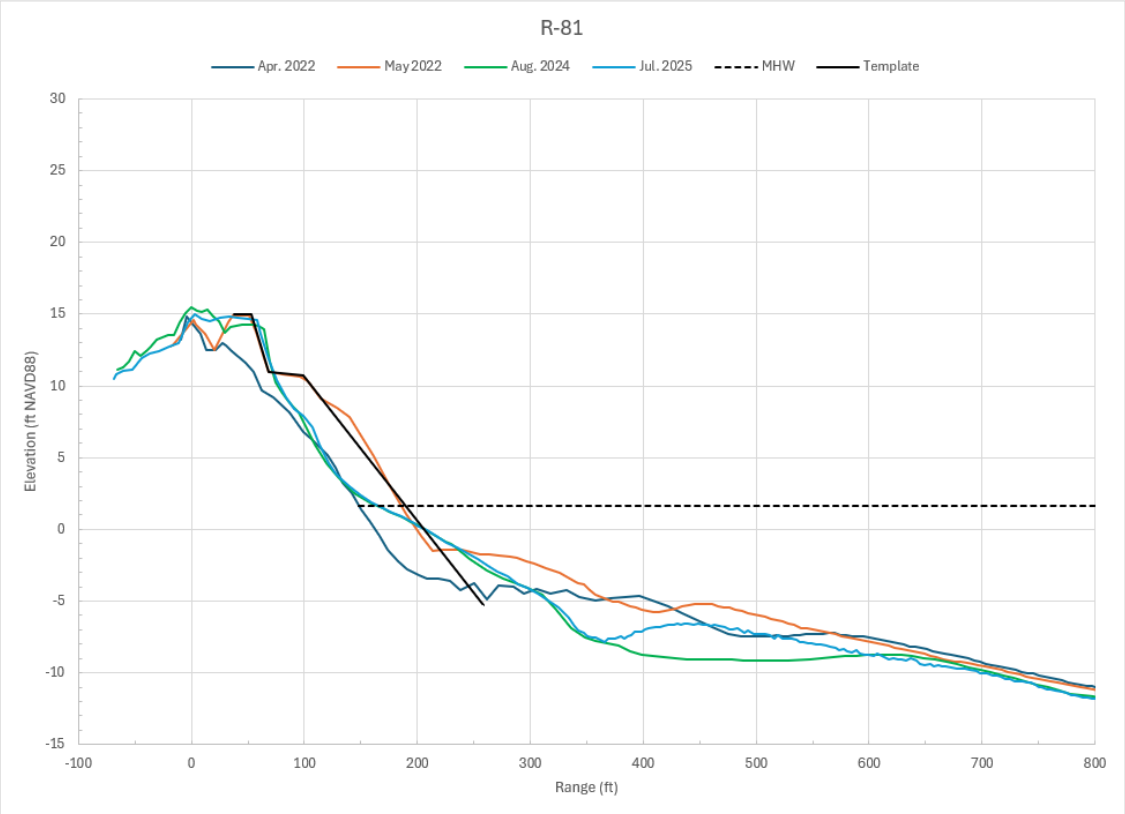

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May 2022
Aug. 2024
Aug. 2025
MHW
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Elevation (ft NAVD88)
Range (ft)

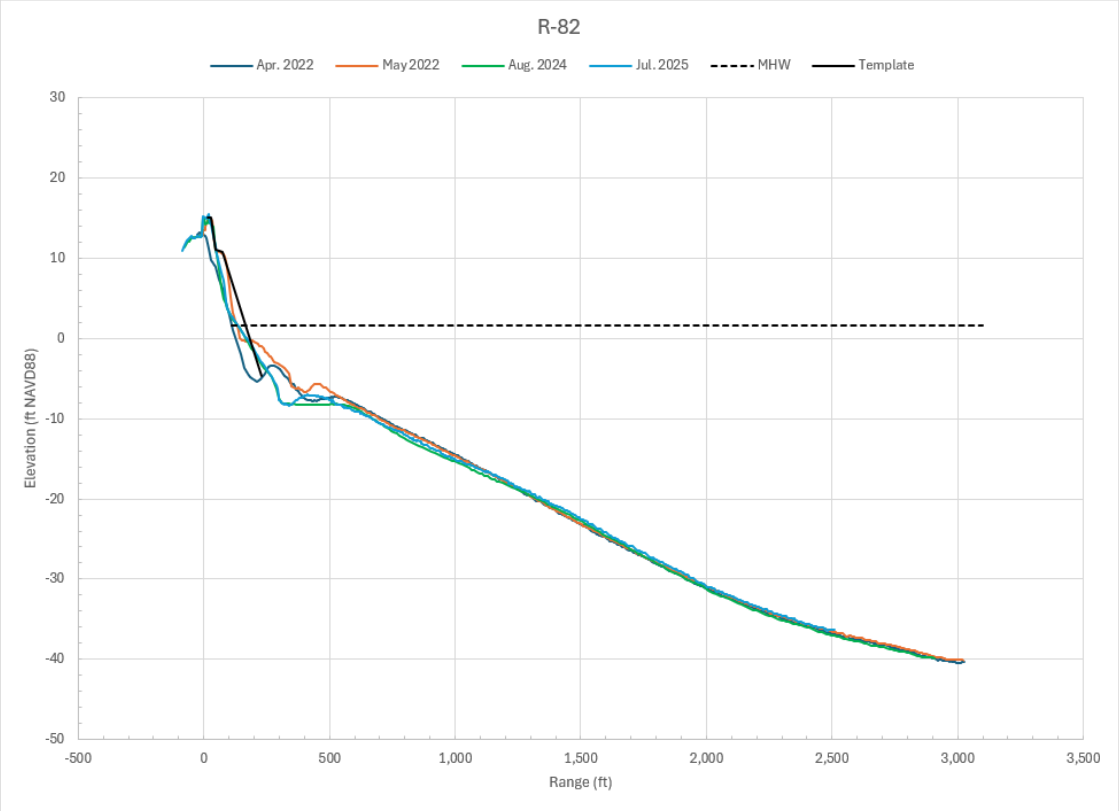

R-79
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May 2022
Aug. 2024
Aug. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

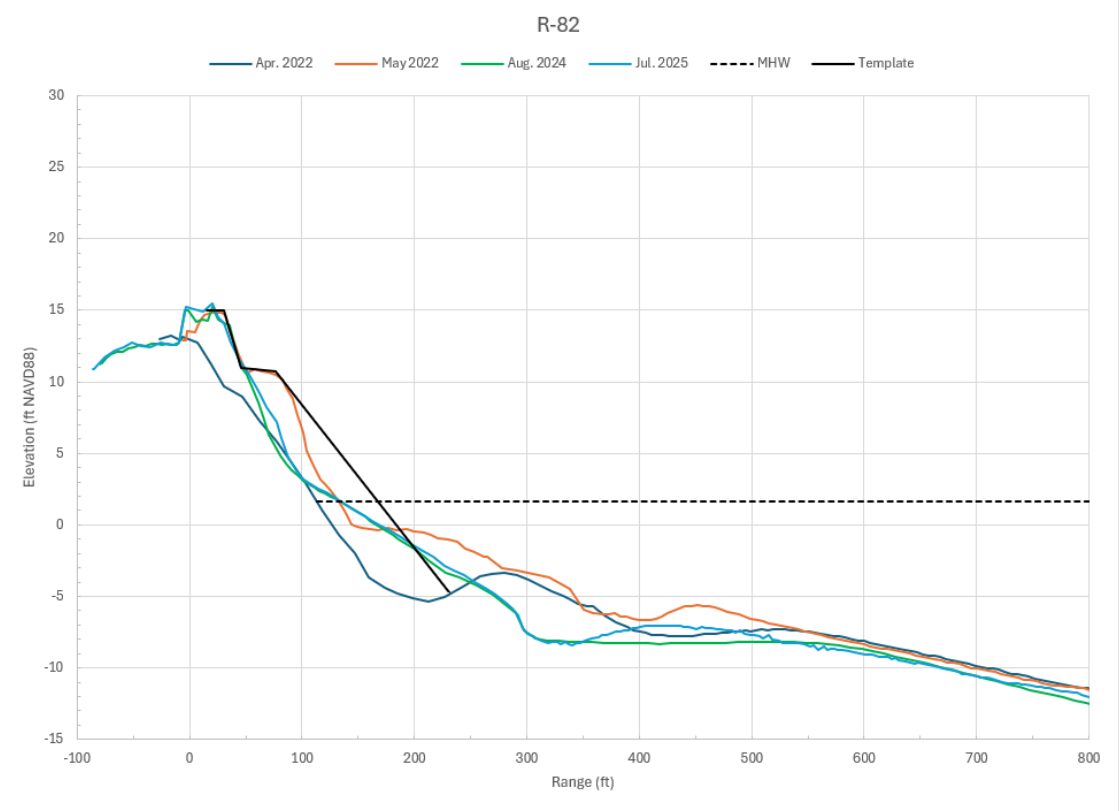

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May 2022
Aug. 2024
Jul. 2025
MHW
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Elevation (ft NAVD88)
Range (ft)
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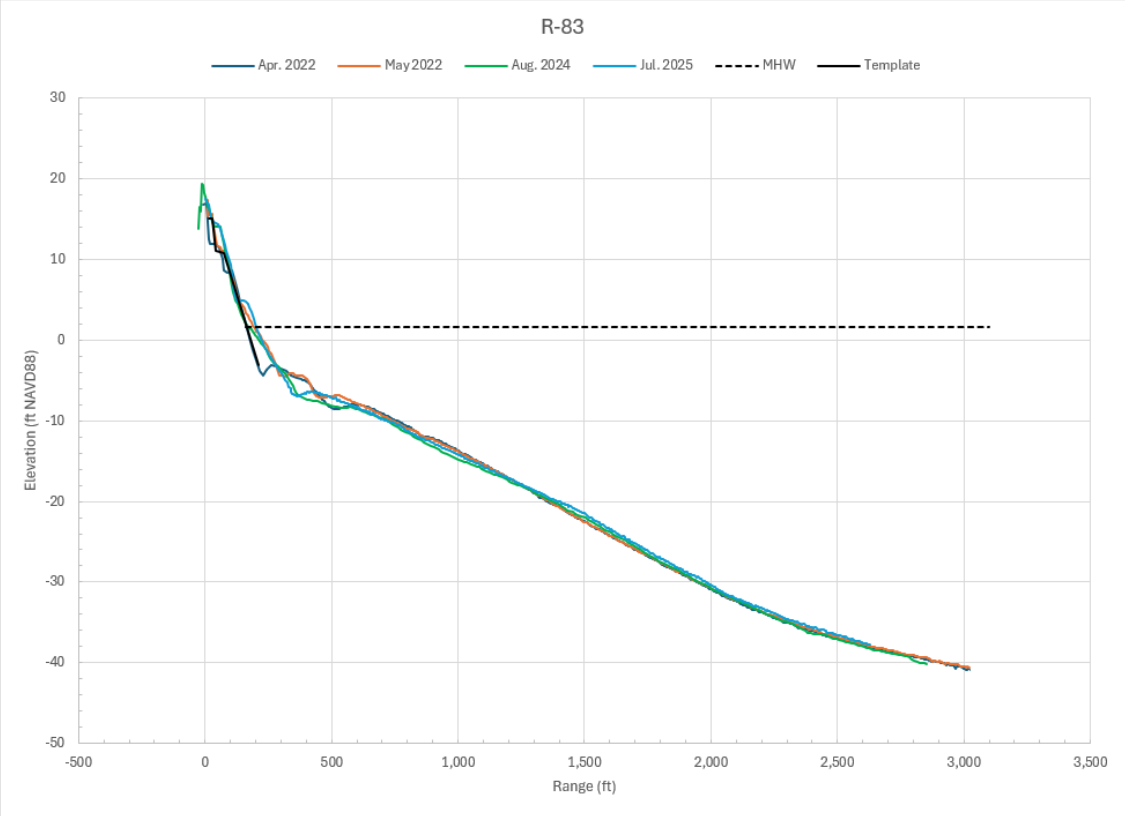

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Aug. 2024
Jul. 2025
MHW
Template
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Range (ft)
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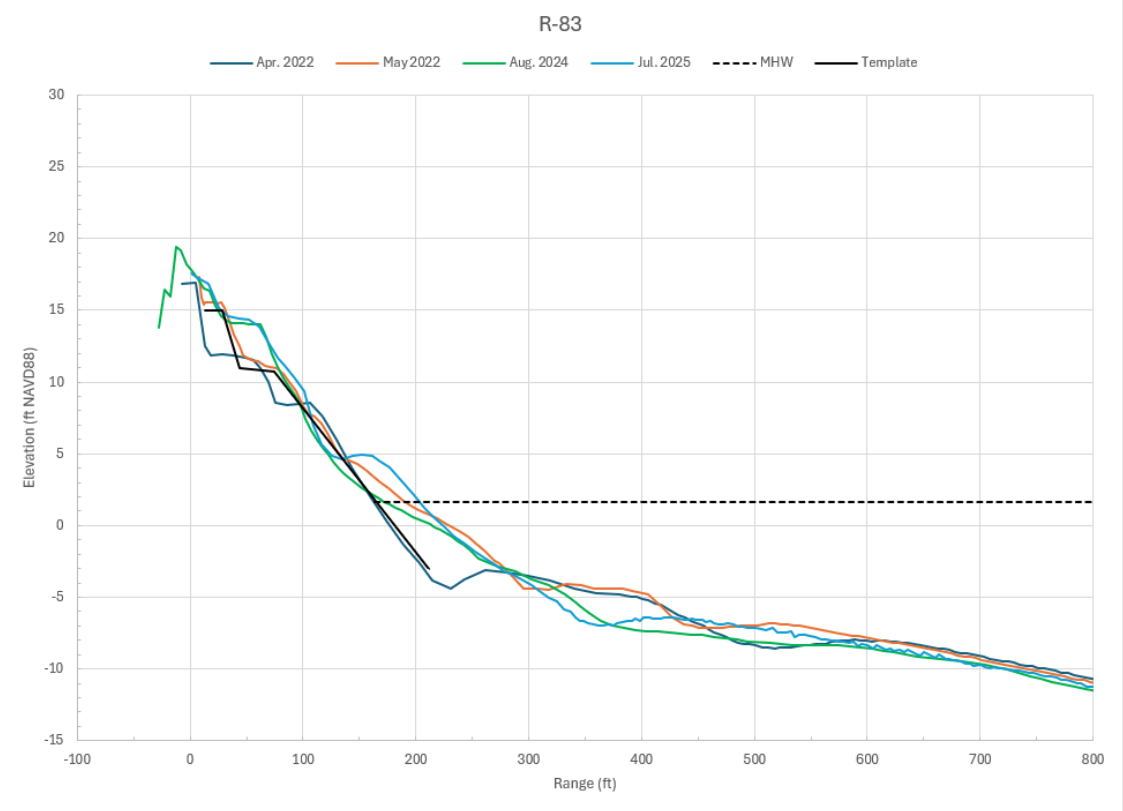

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Aug. 2024
Jul. 2025
MHW
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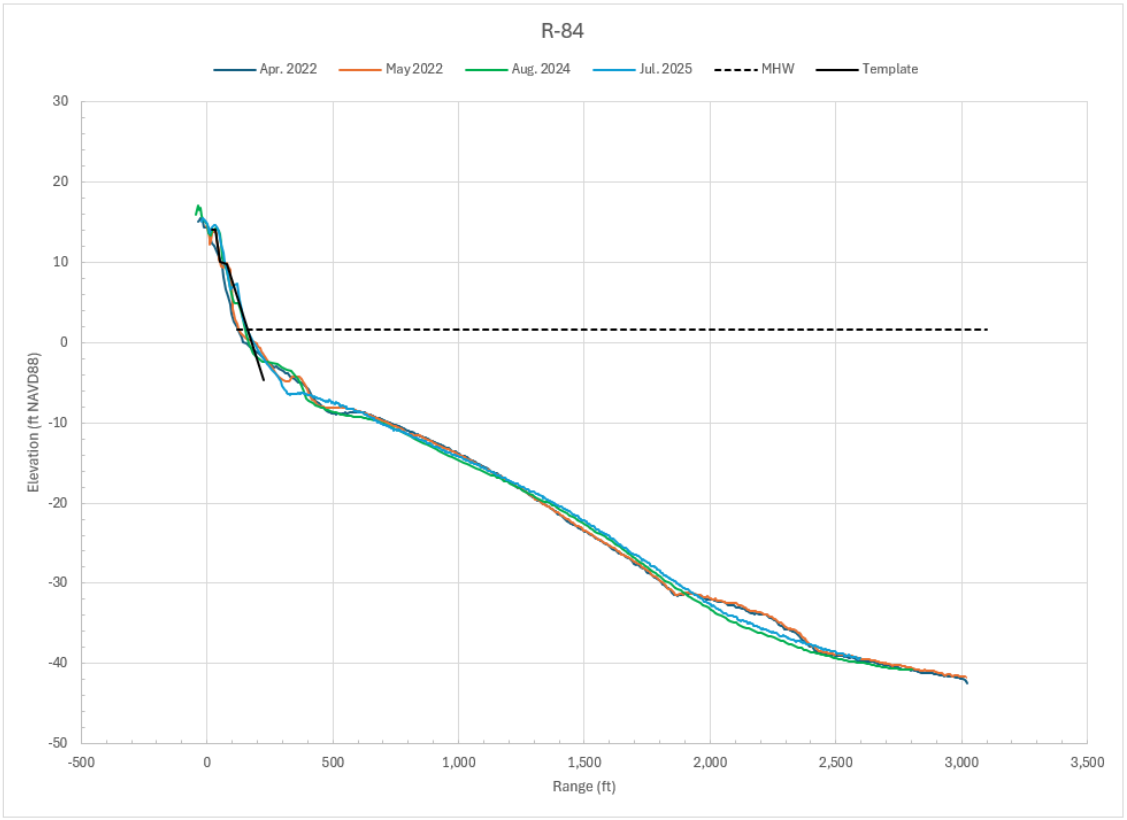

R-81
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
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10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

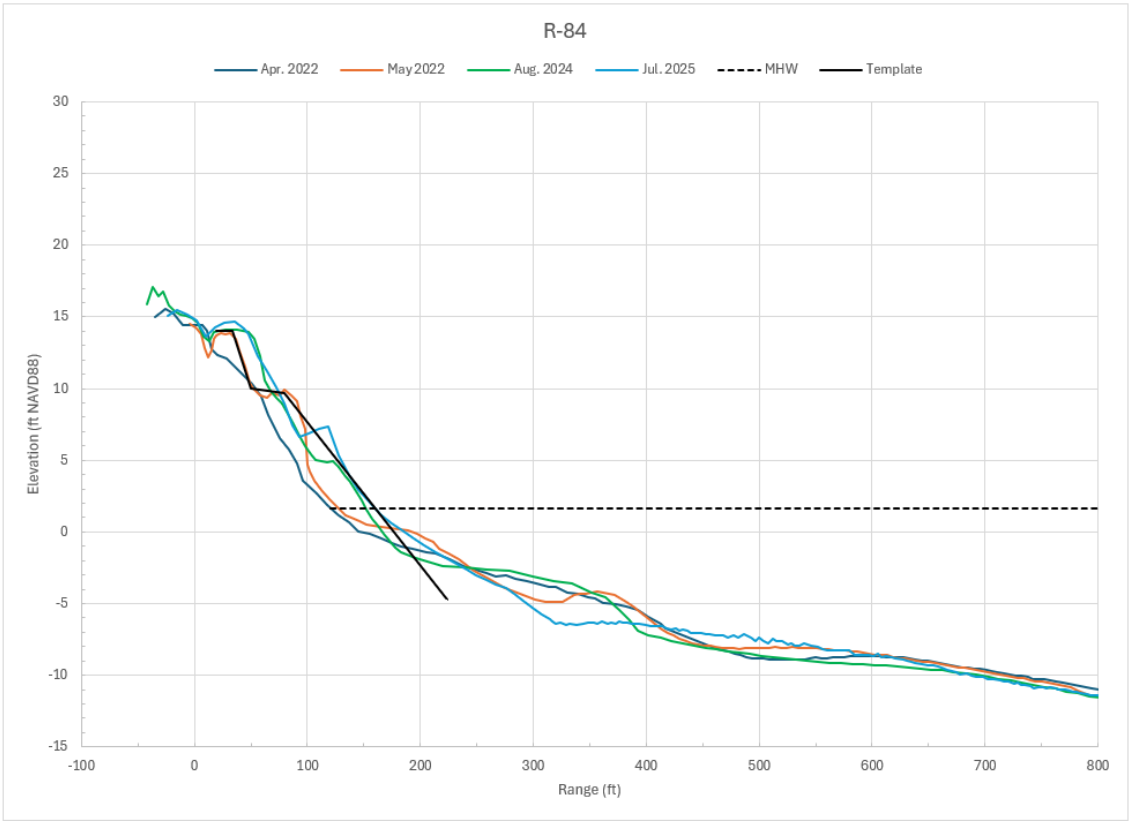

R-82
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

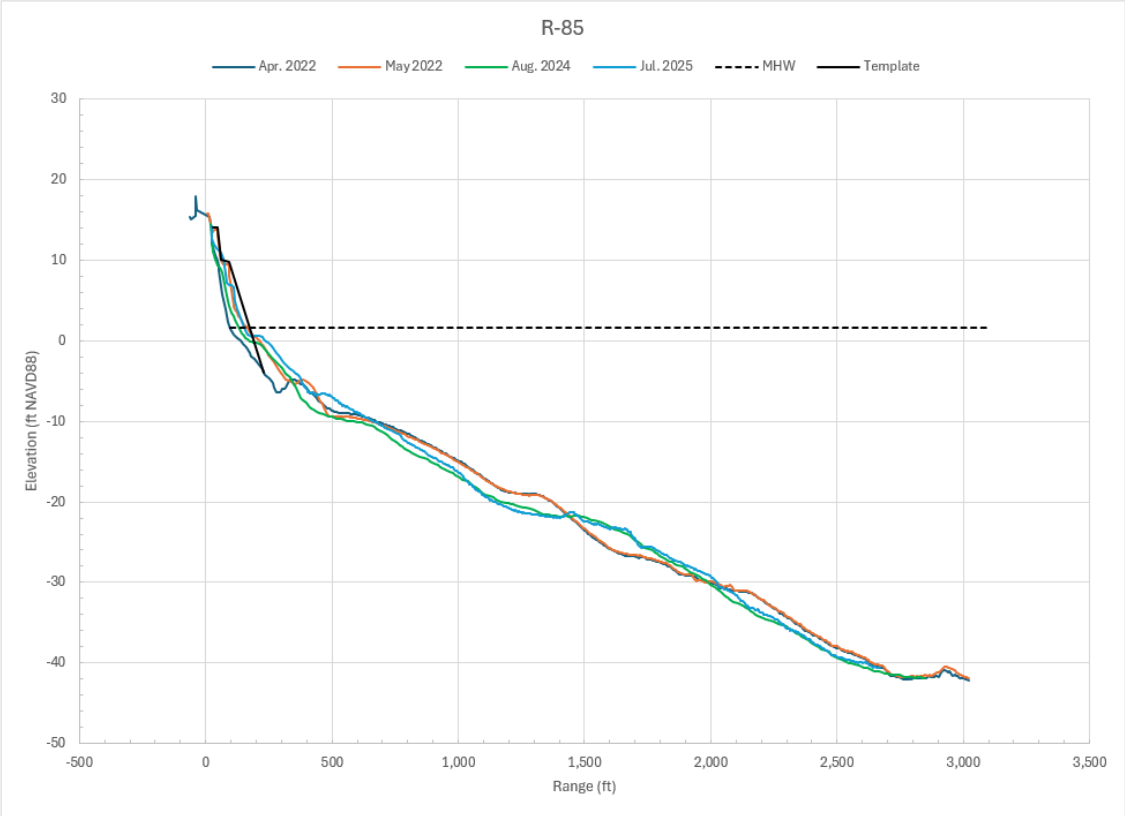

R-82
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

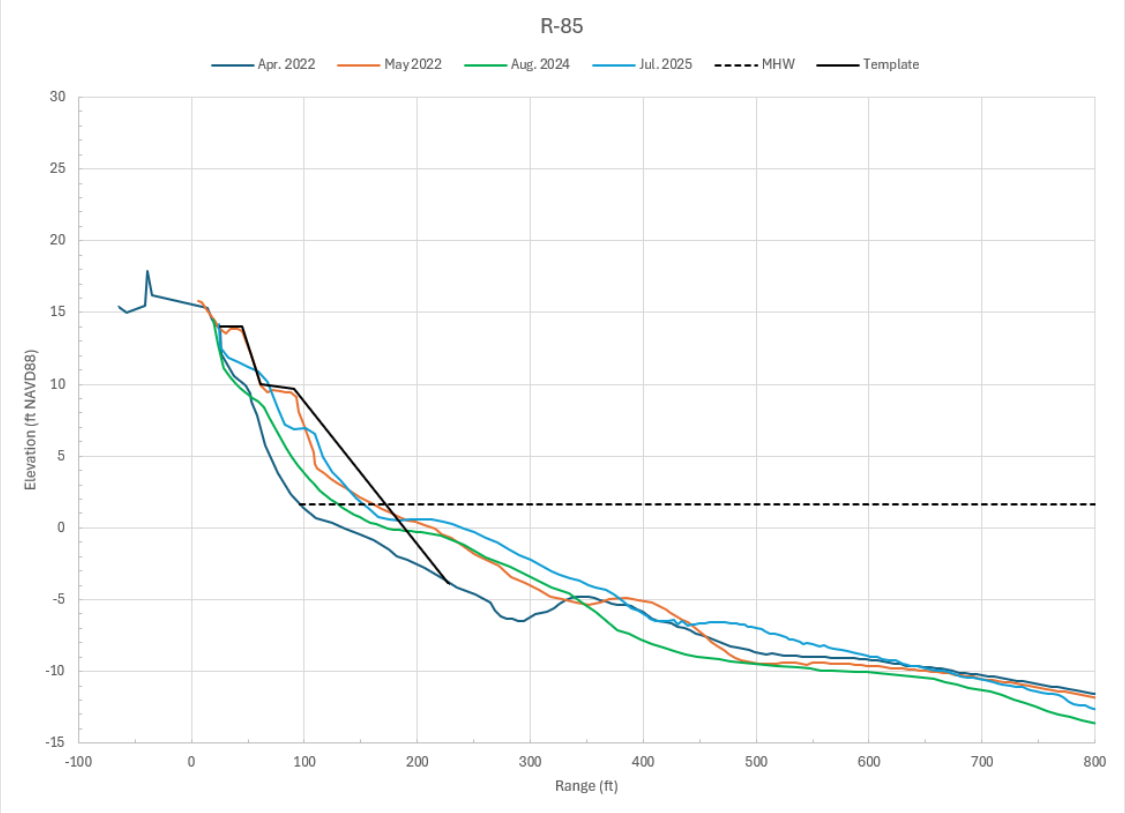

R-83
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

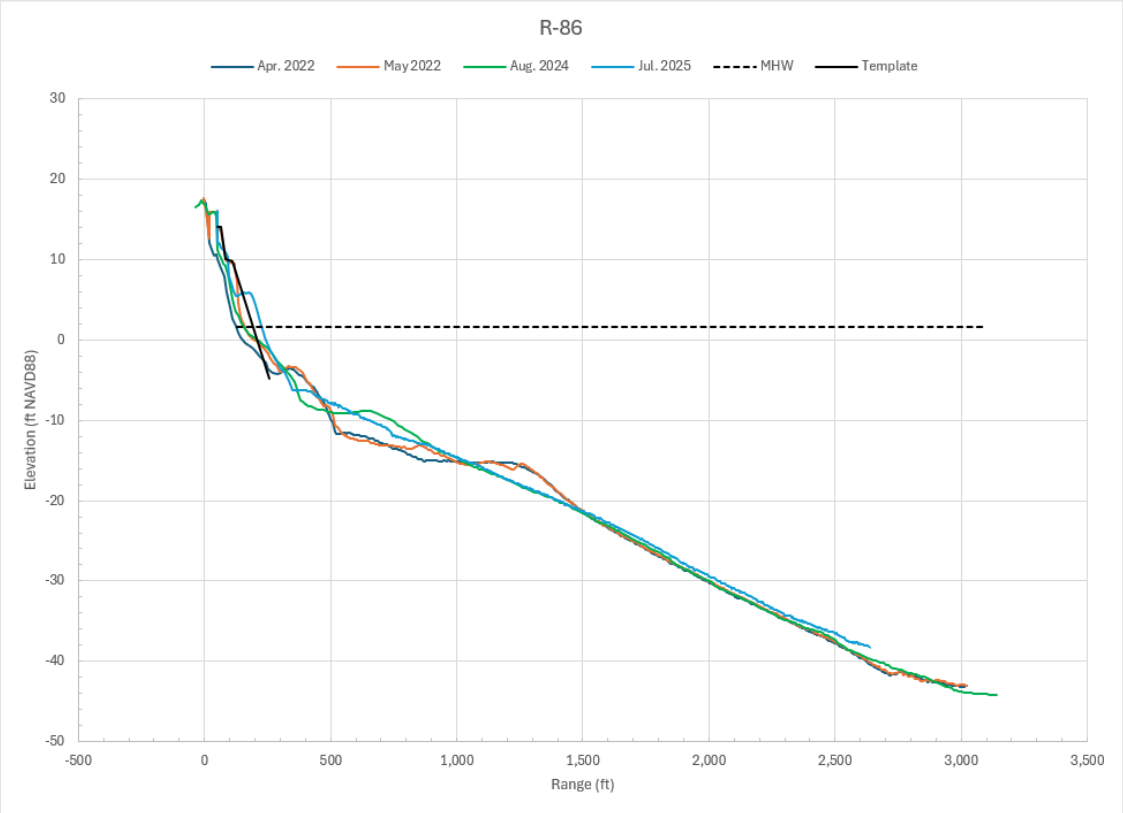

R-83
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

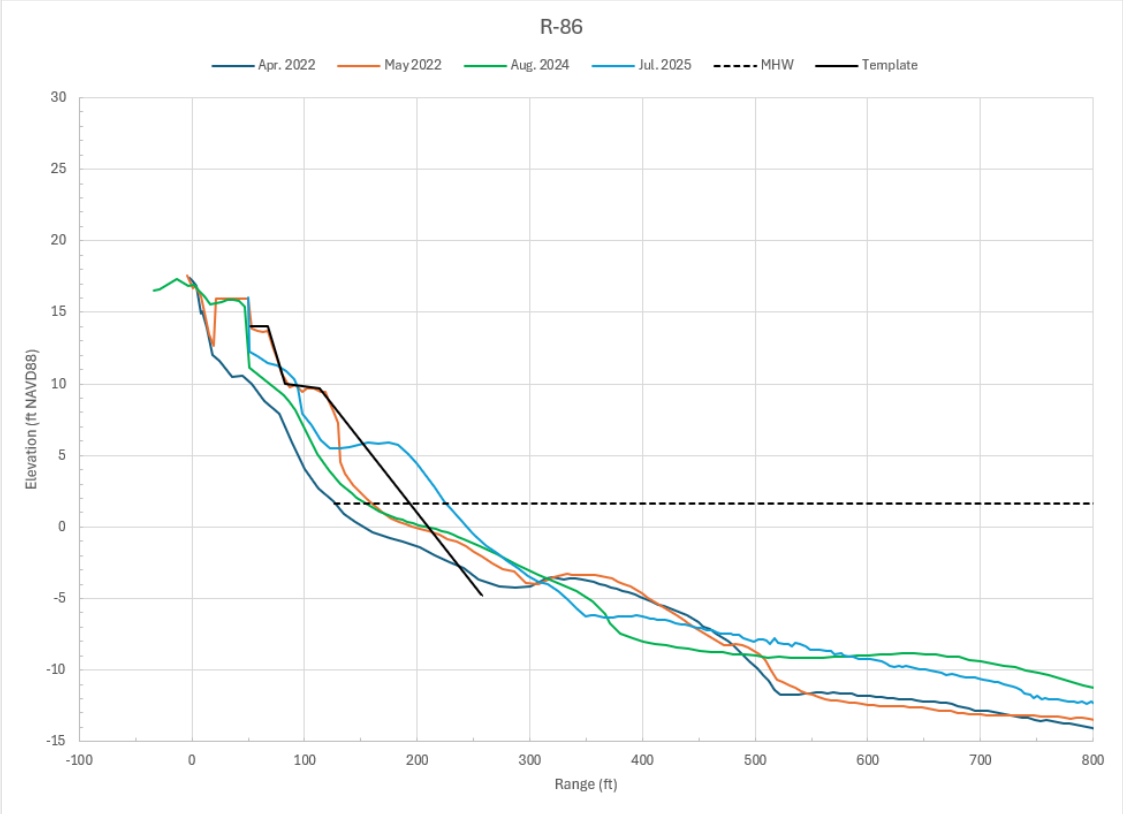

R-84
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

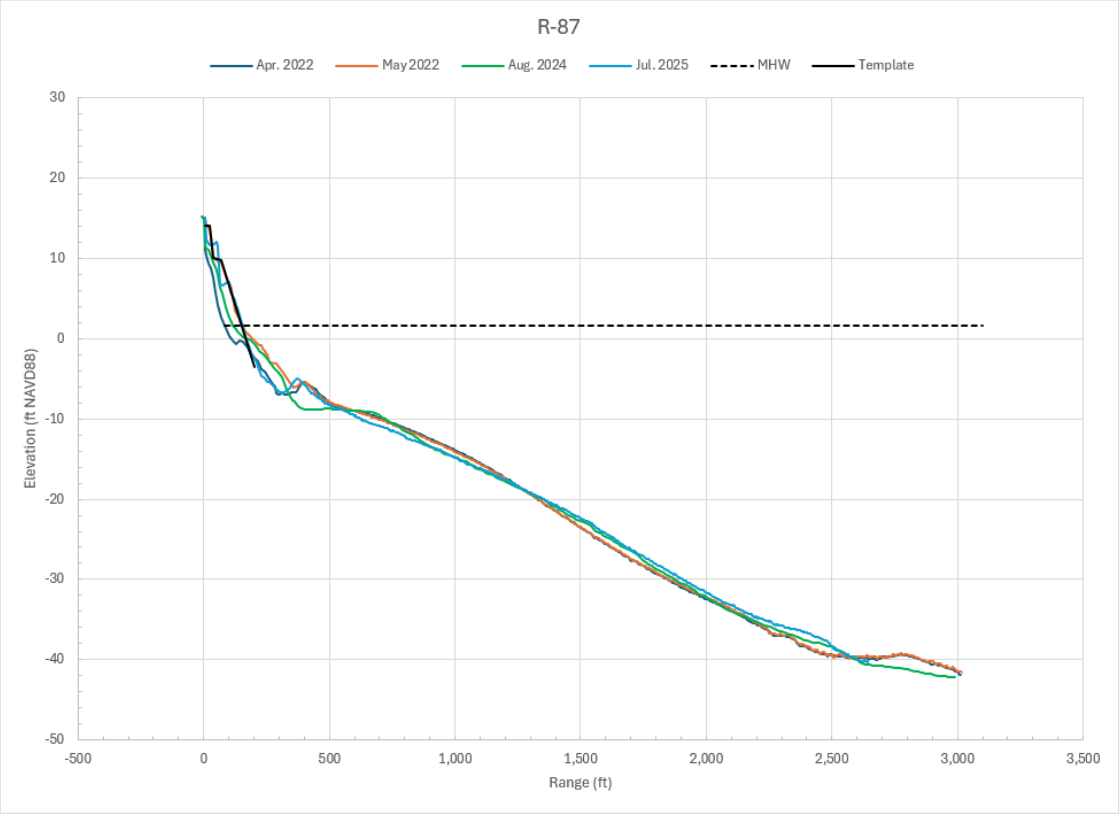

R-84
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

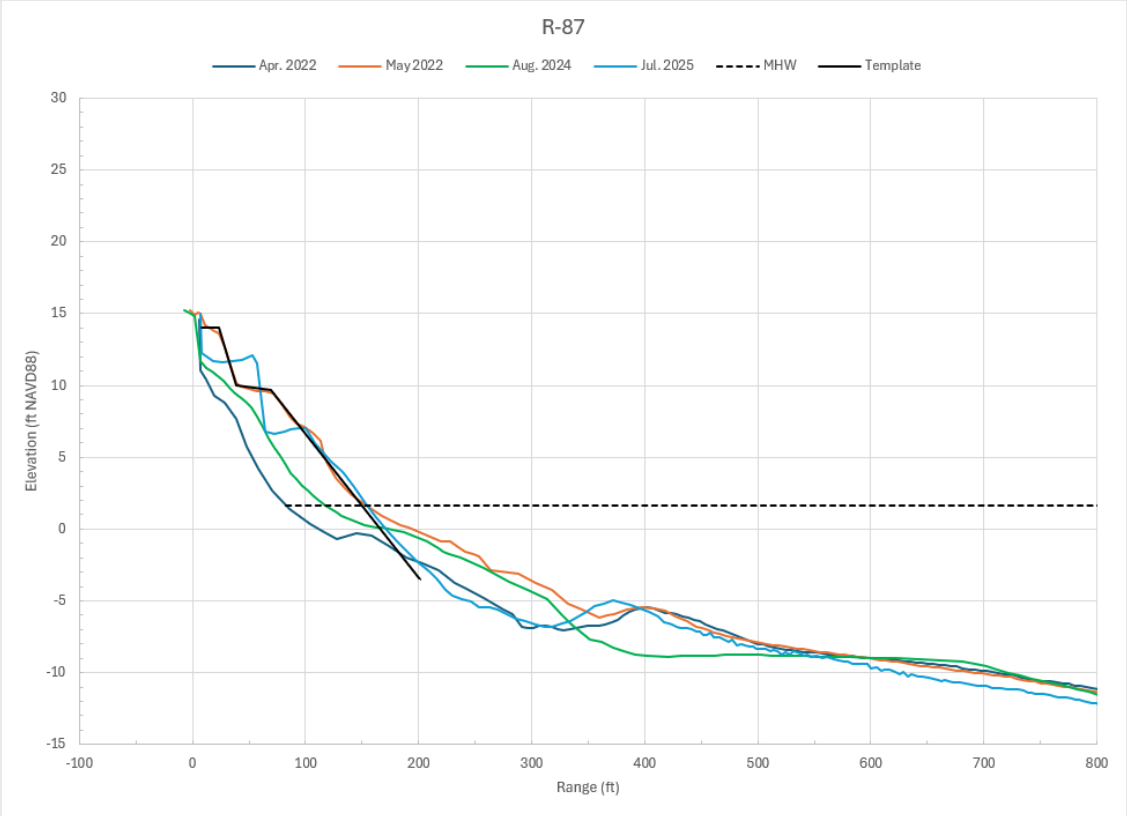

R-85
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

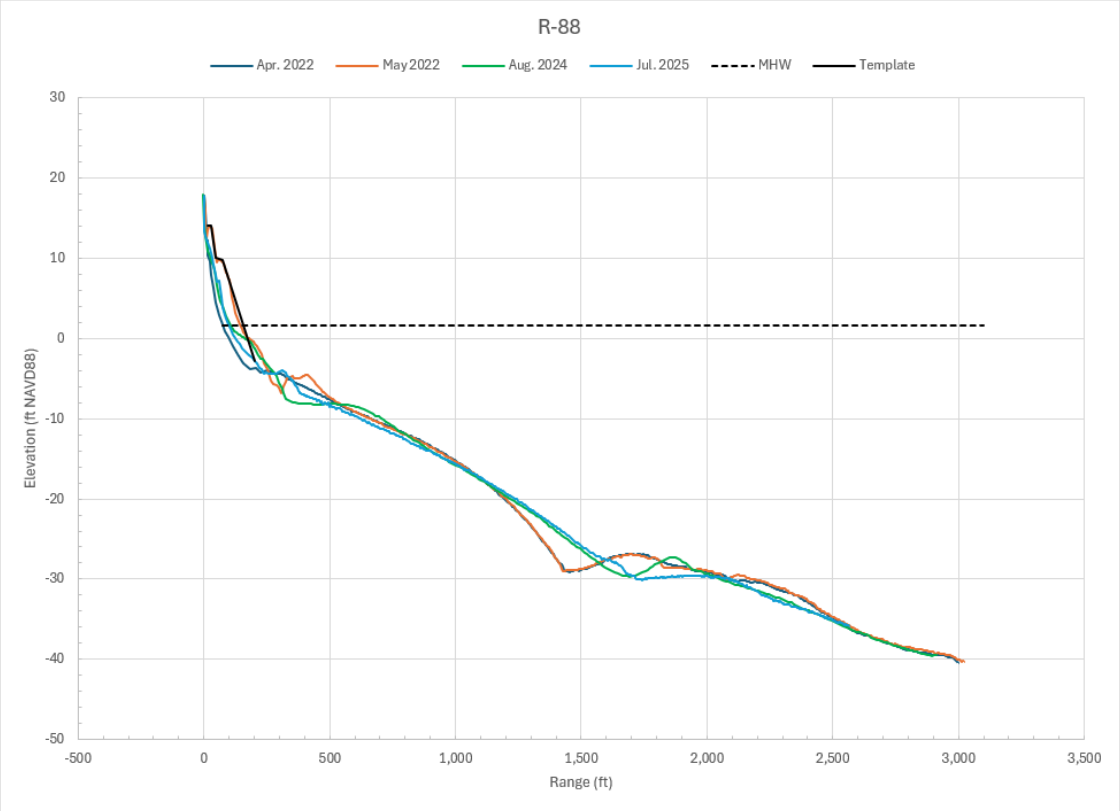

R-85
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

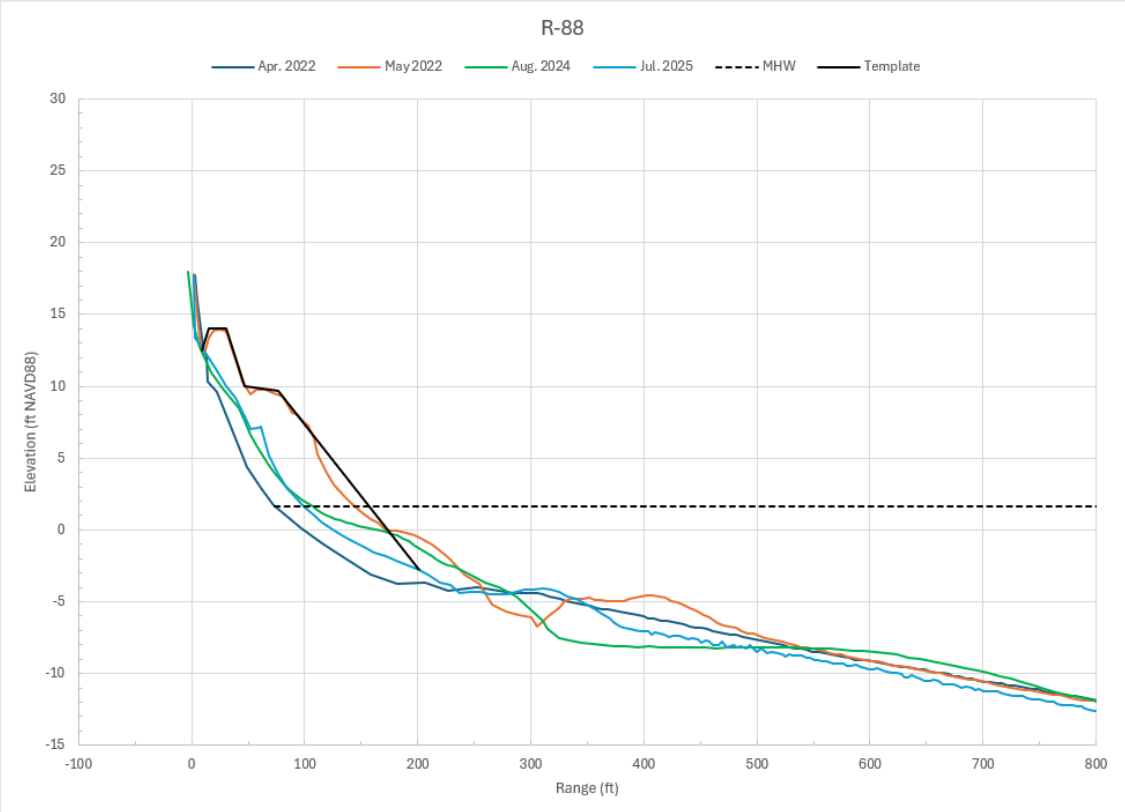

R-86
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

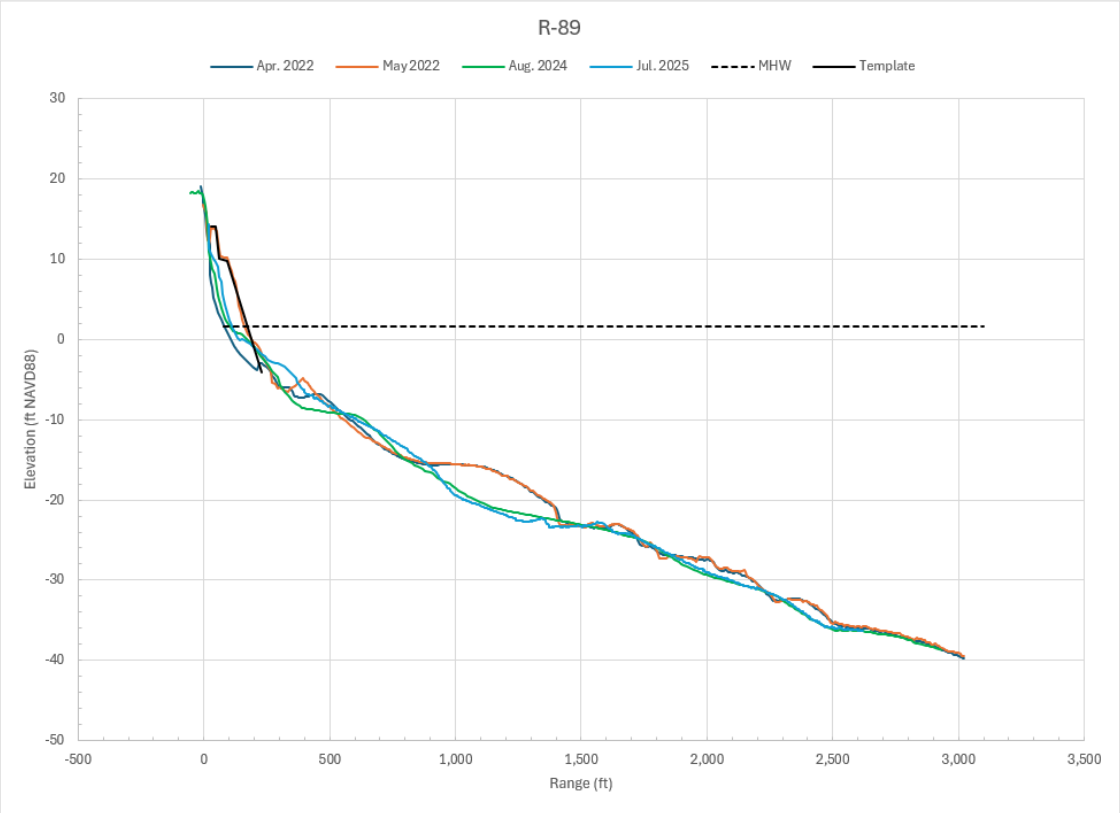

R-86
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

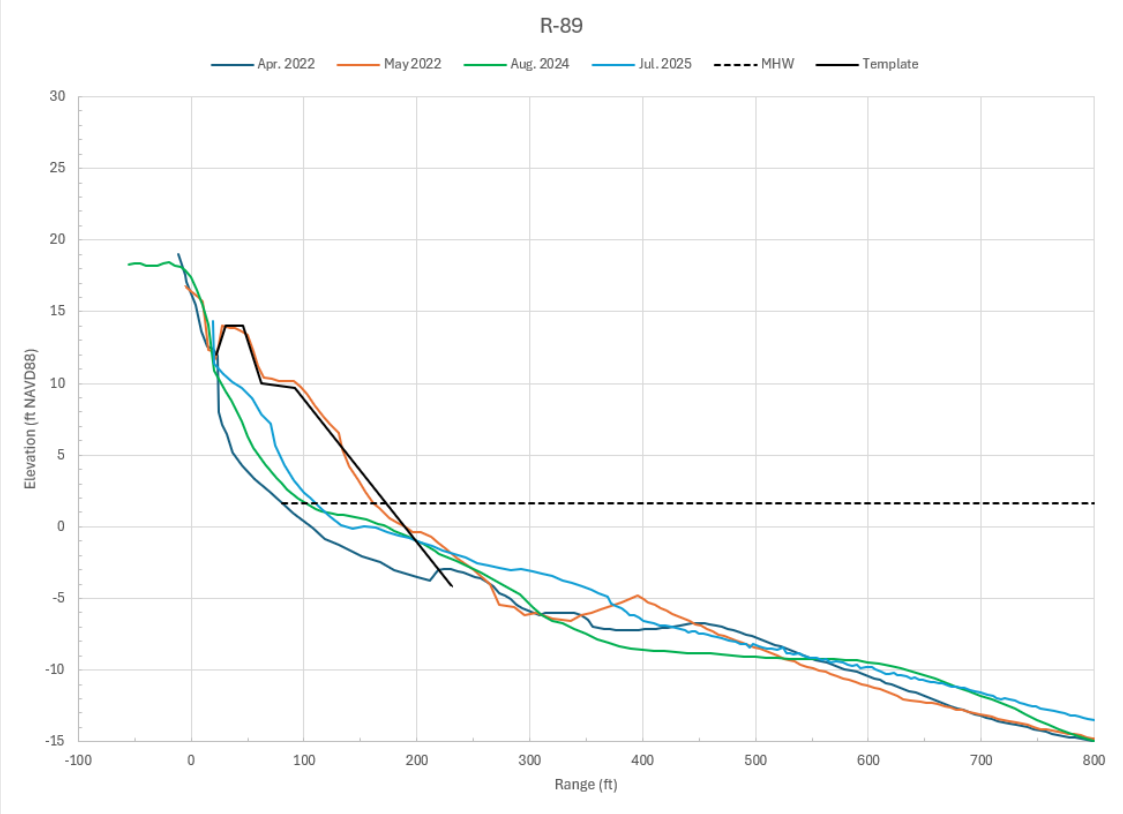

R-87
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

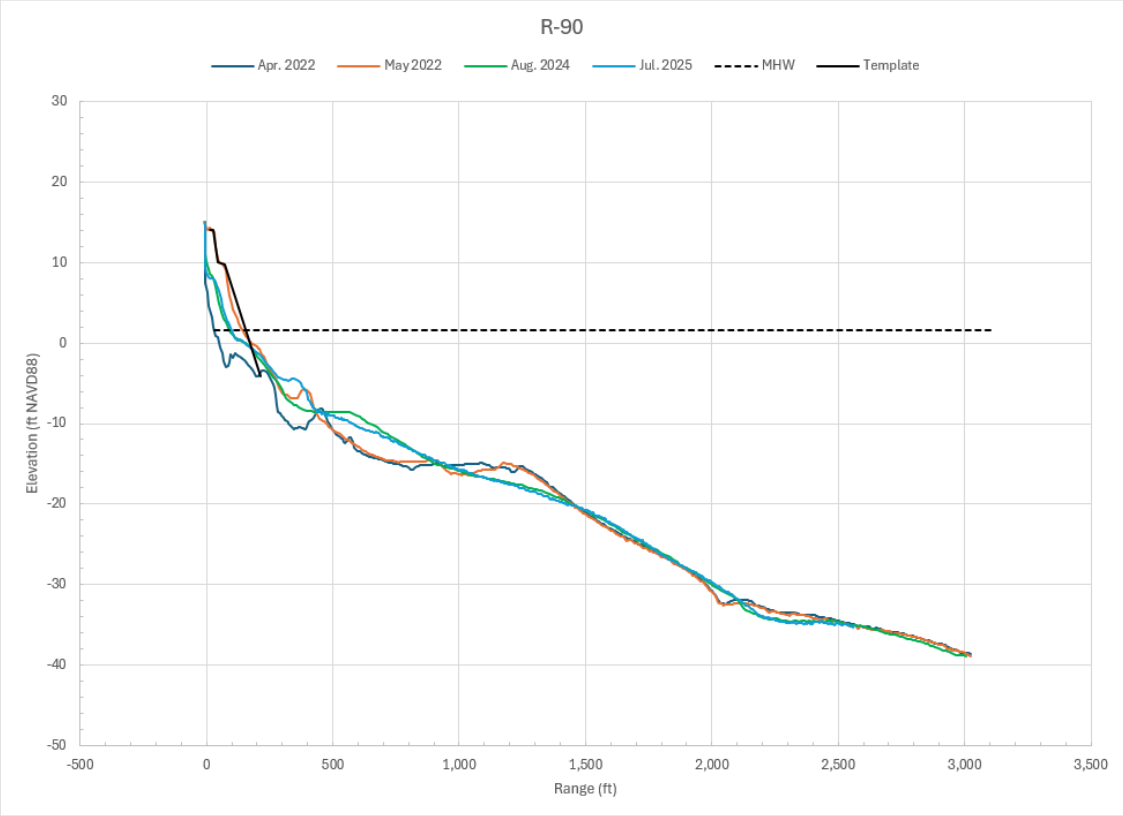

R-87
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

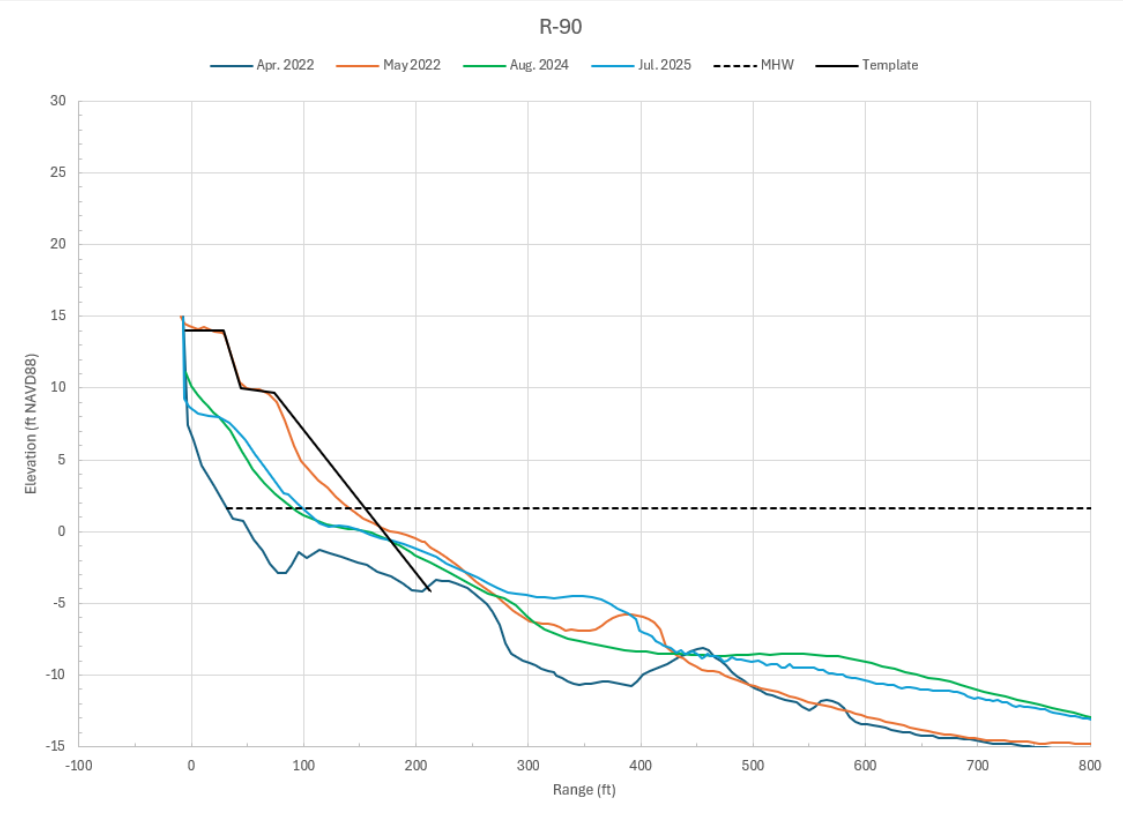

R-88
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

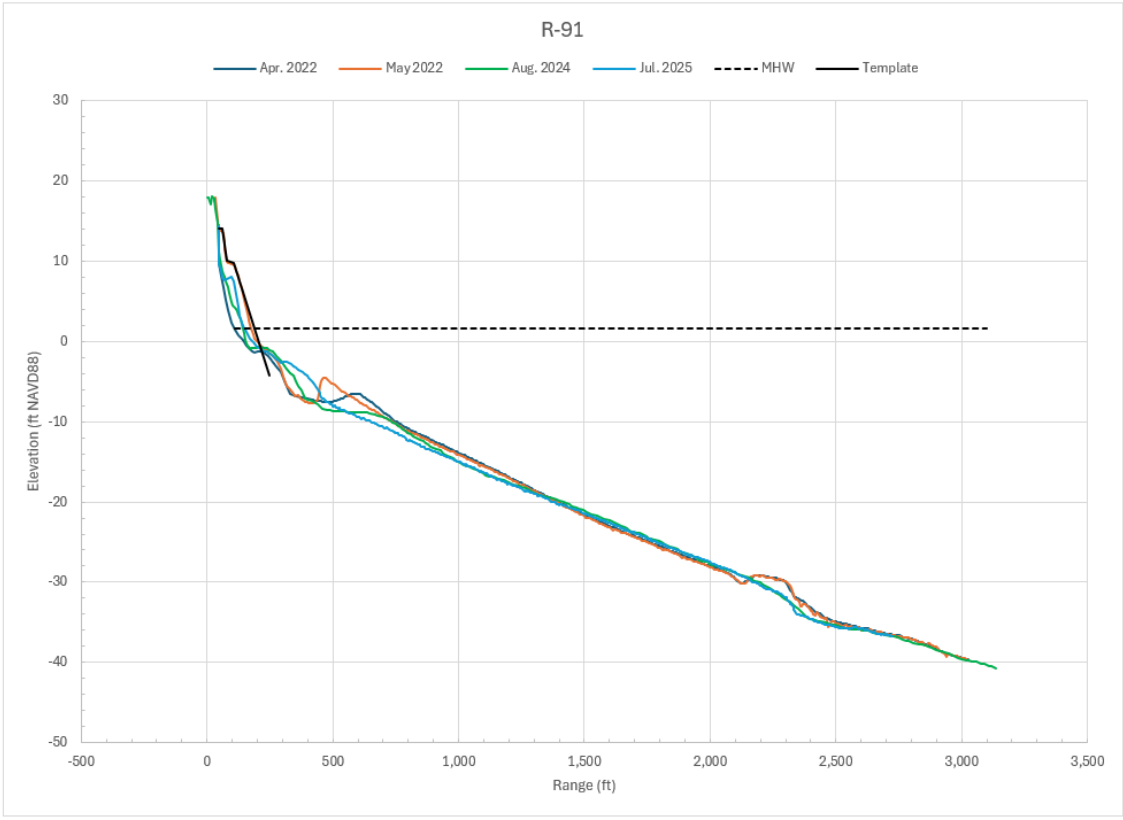

R-88
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

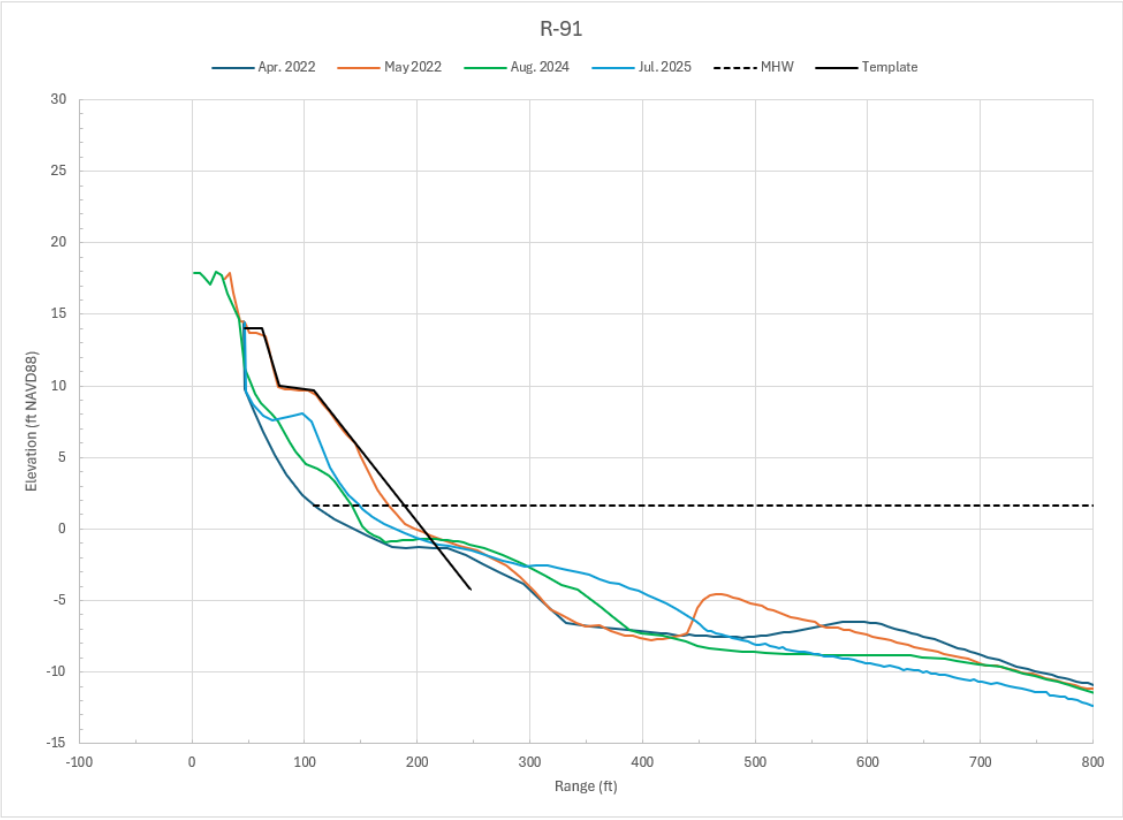

R-89
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

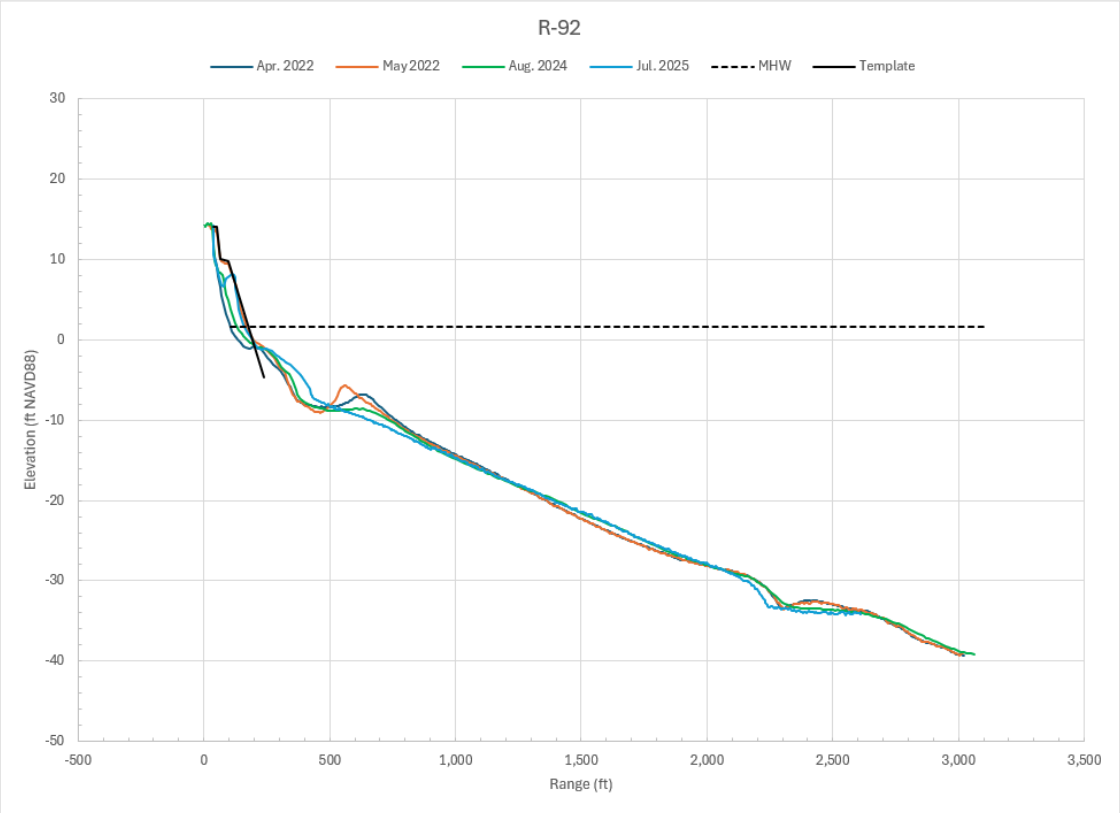

R-89
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

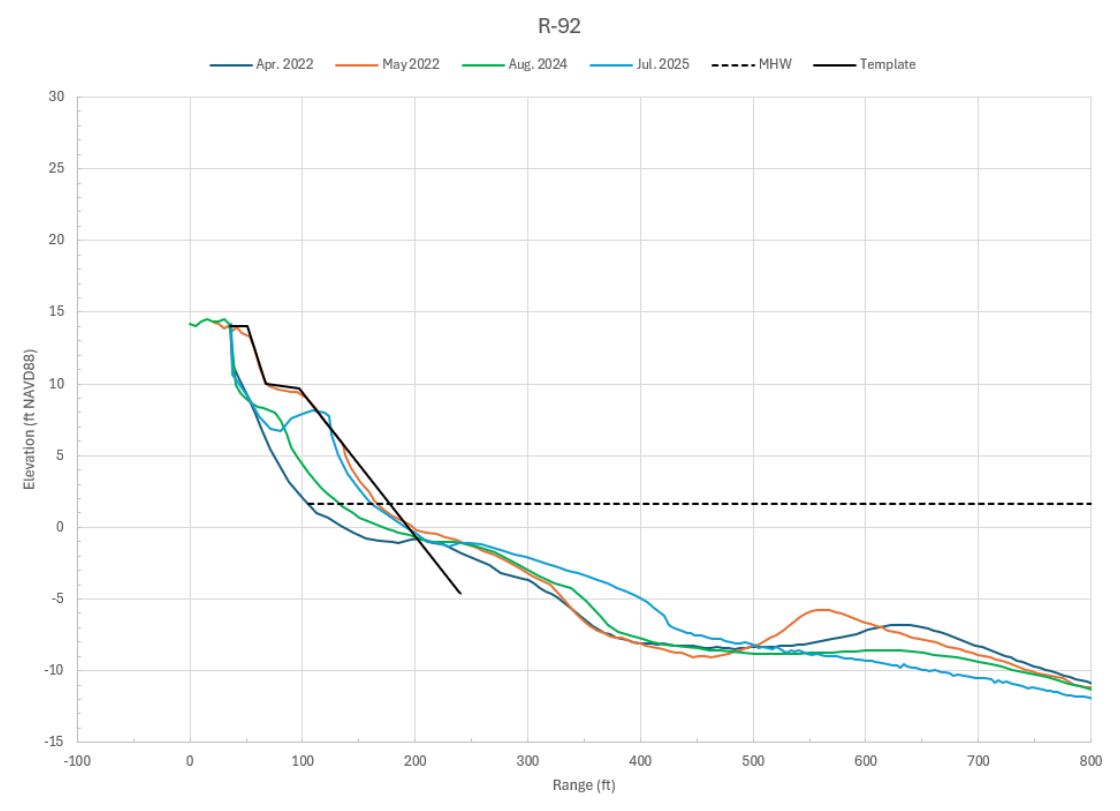

R-90
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

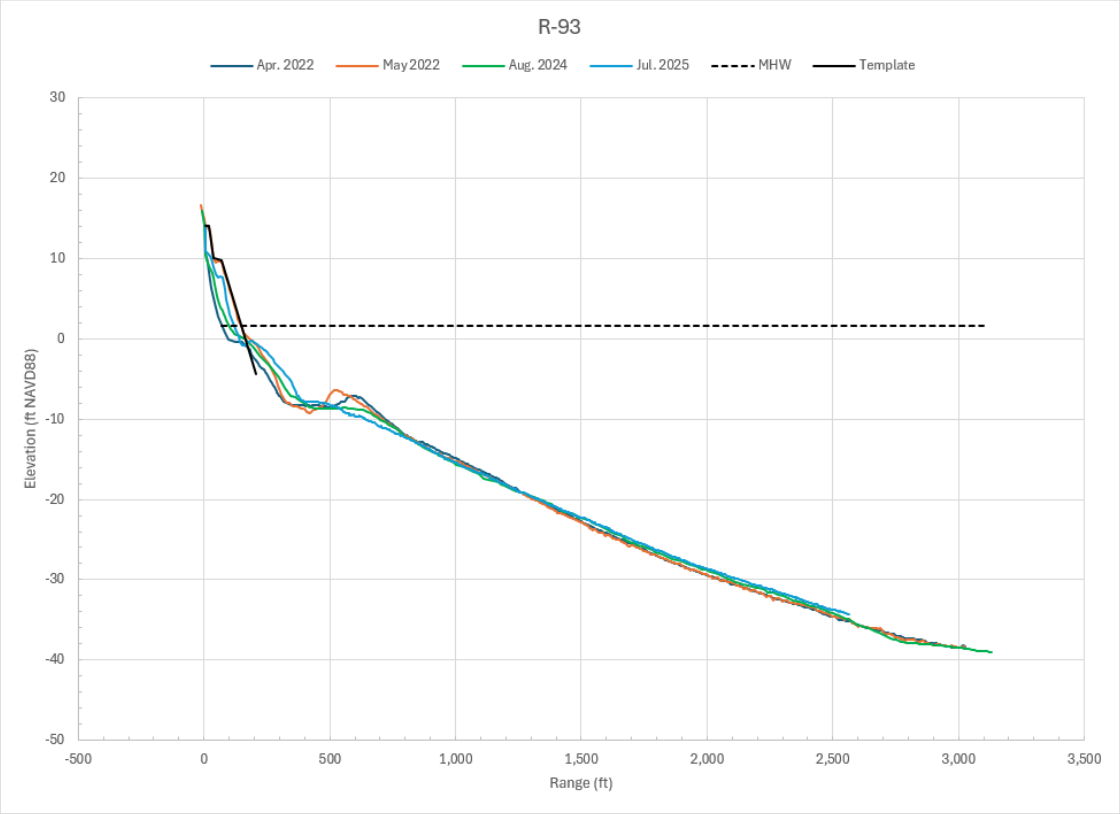

R-90
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

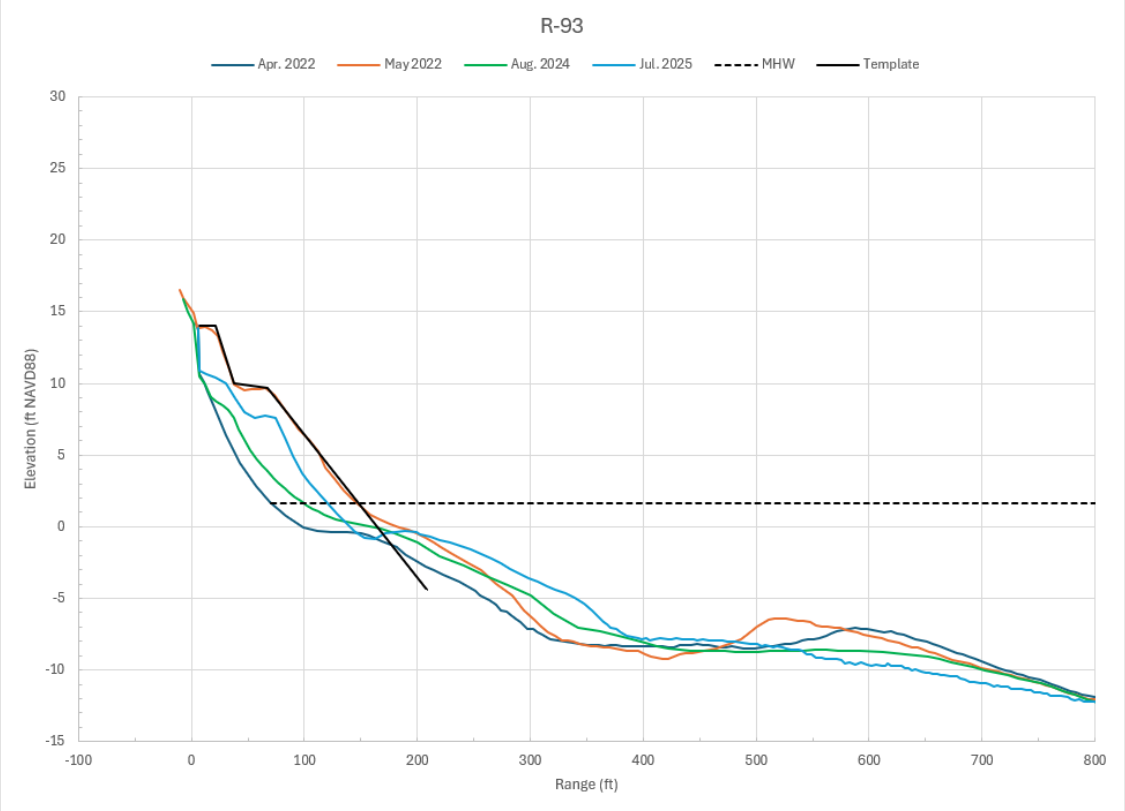

R-91
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

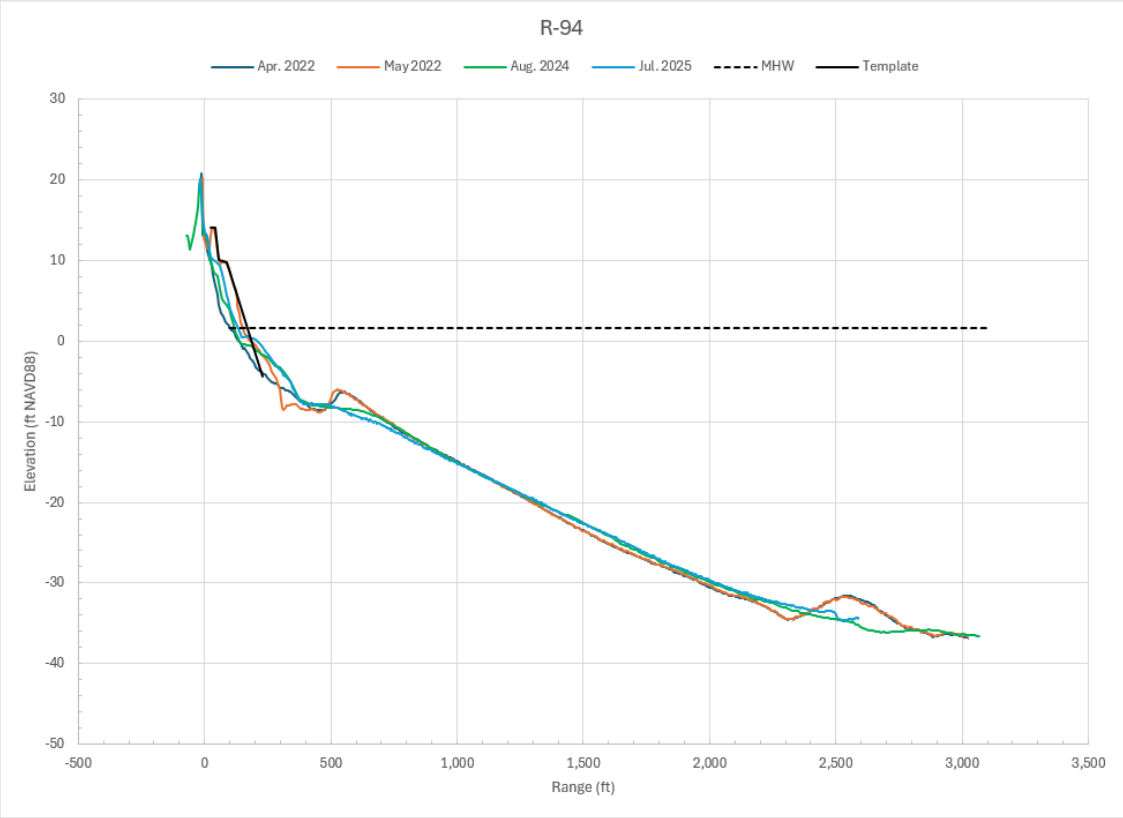

R-91
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

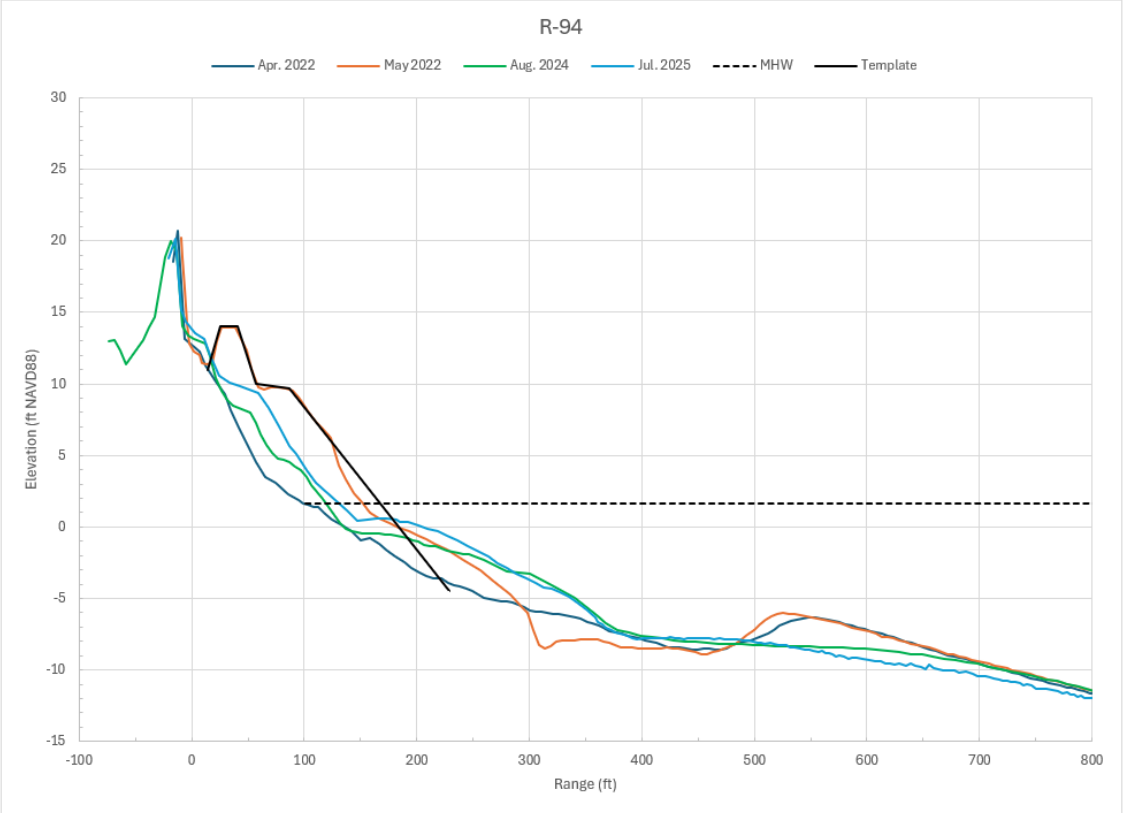

R-92
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

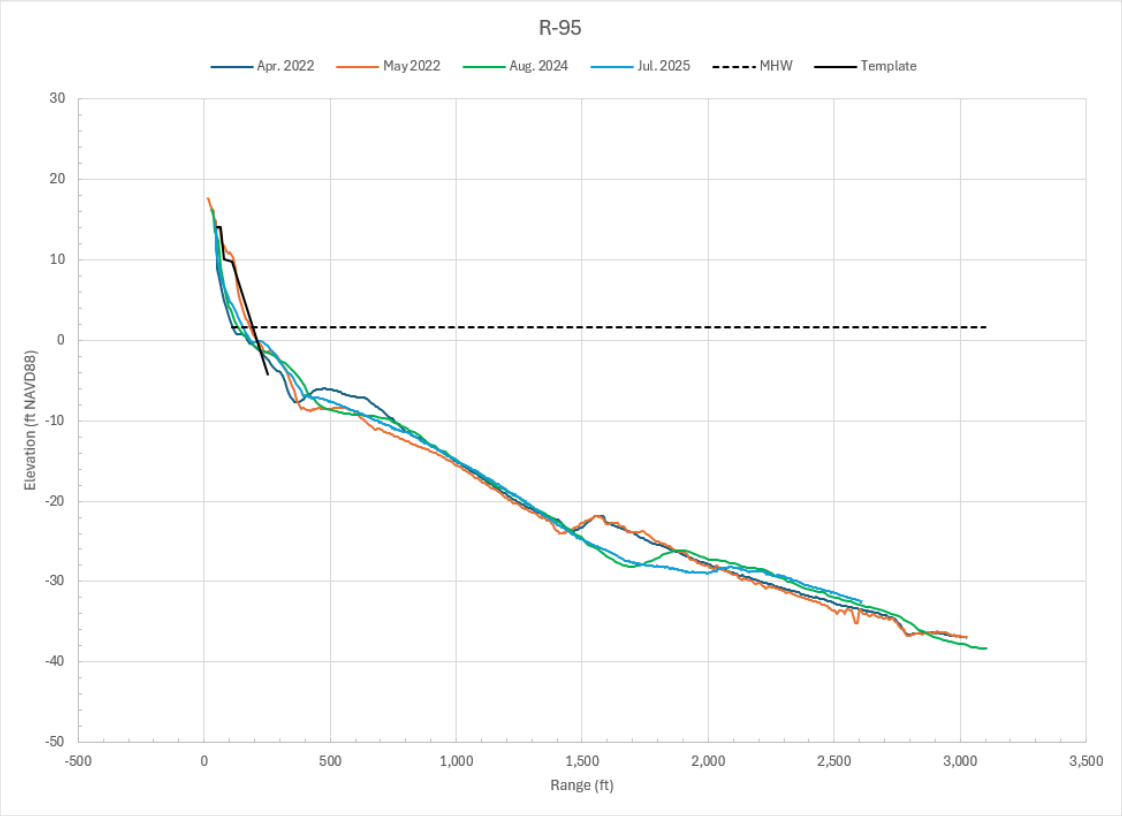

R-92
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

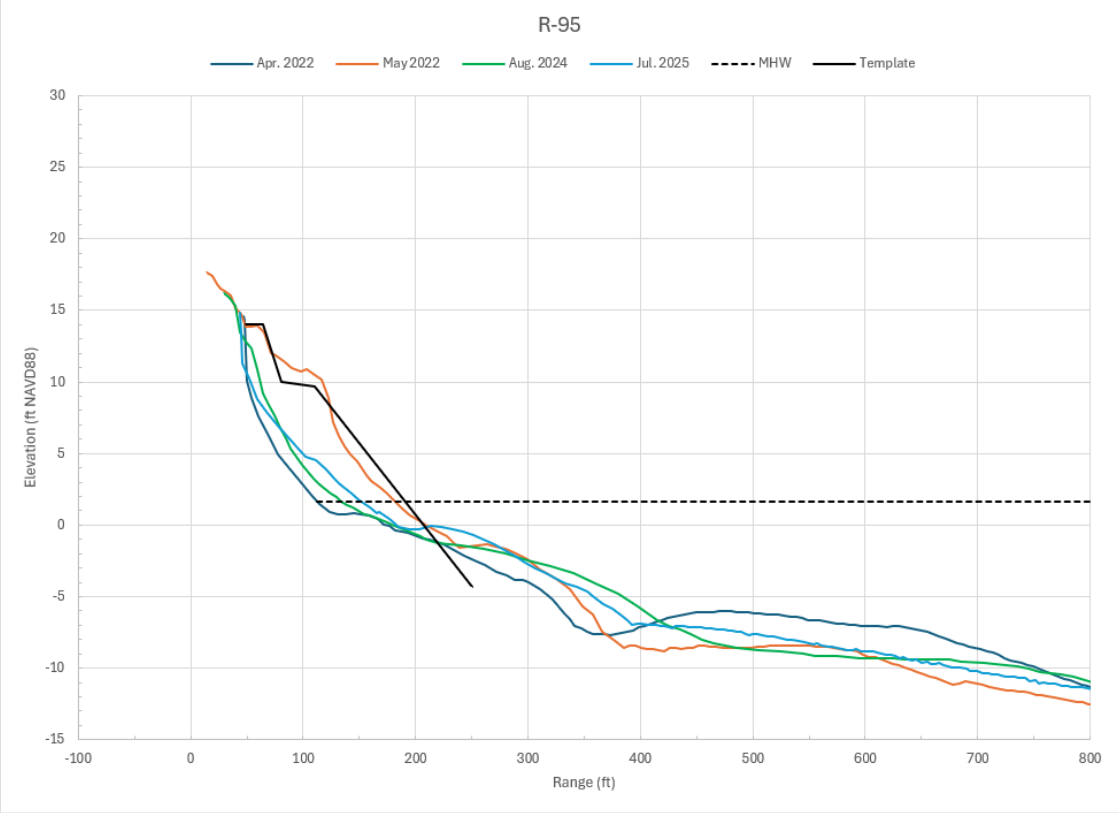

R-93
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

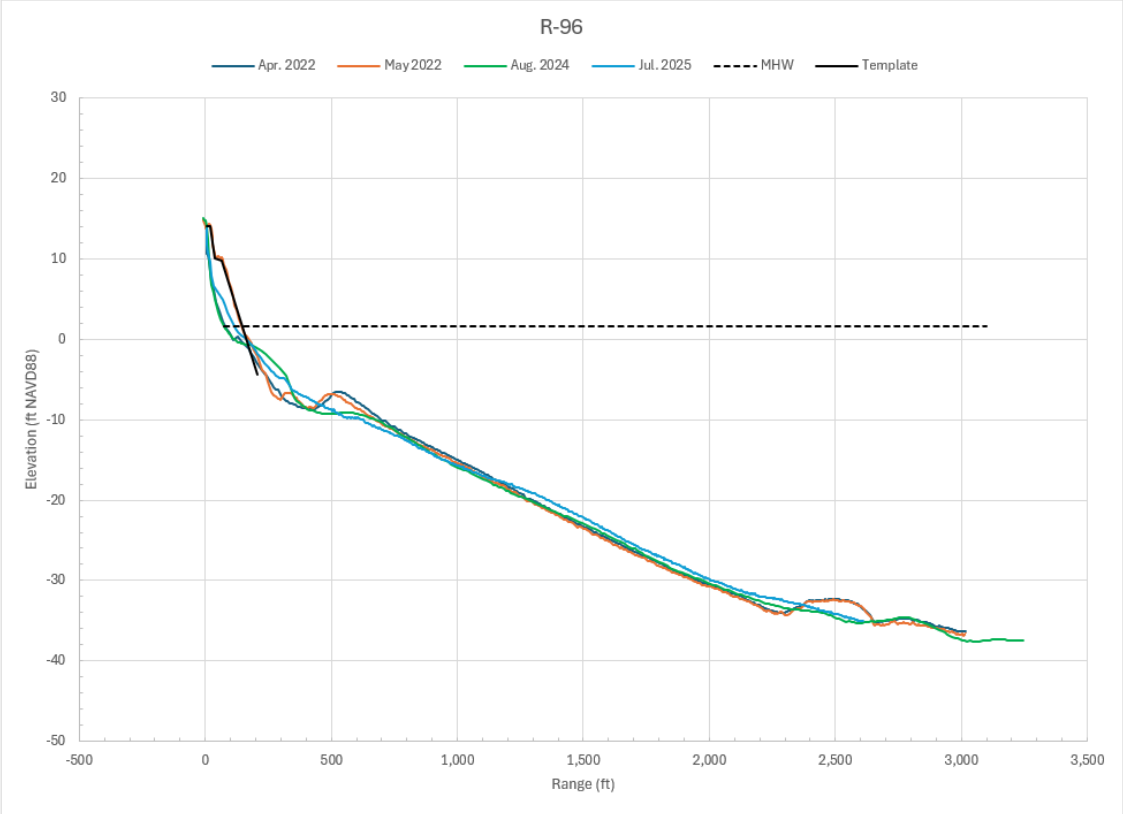

R-93
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

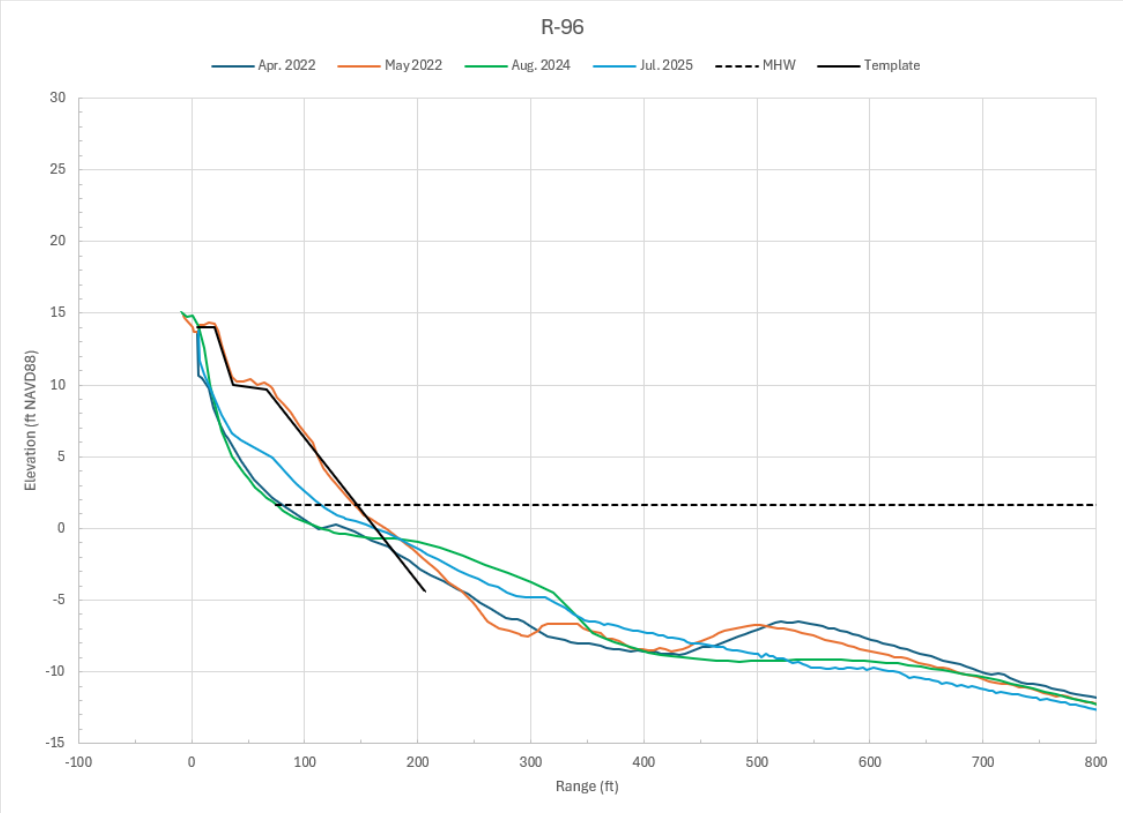

R-94
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

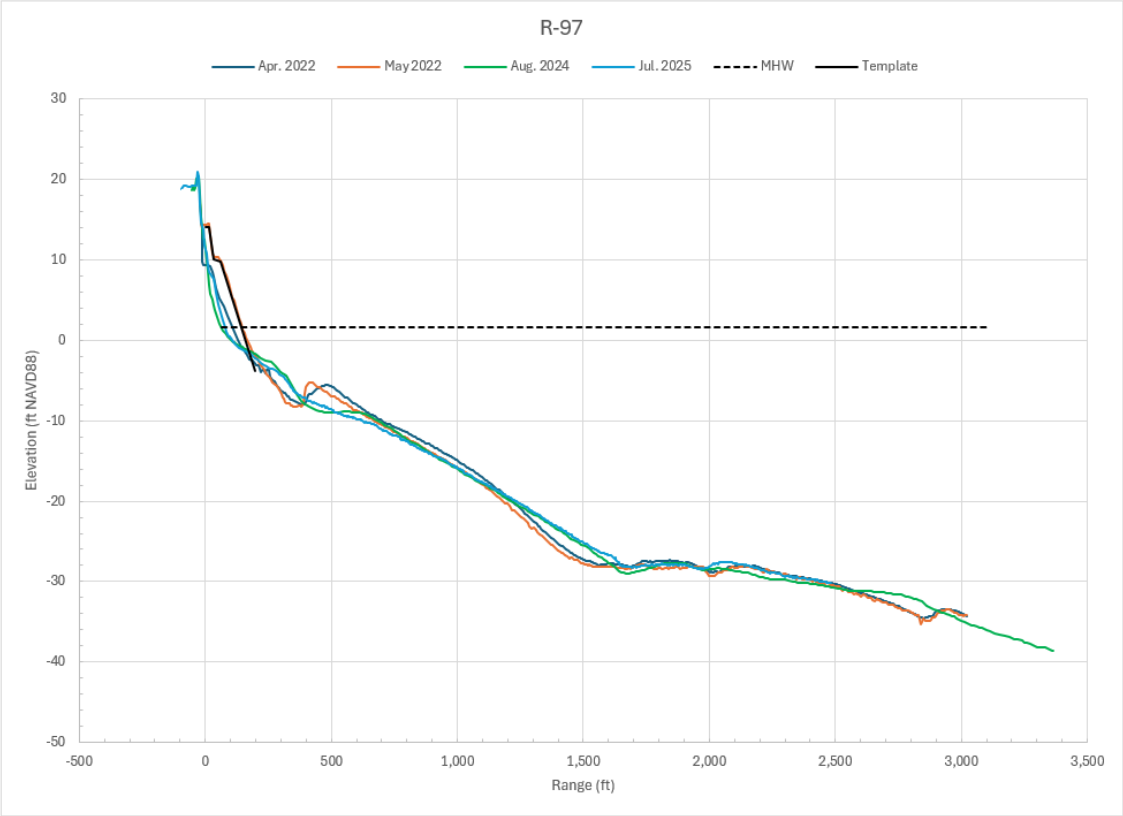

R-94
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

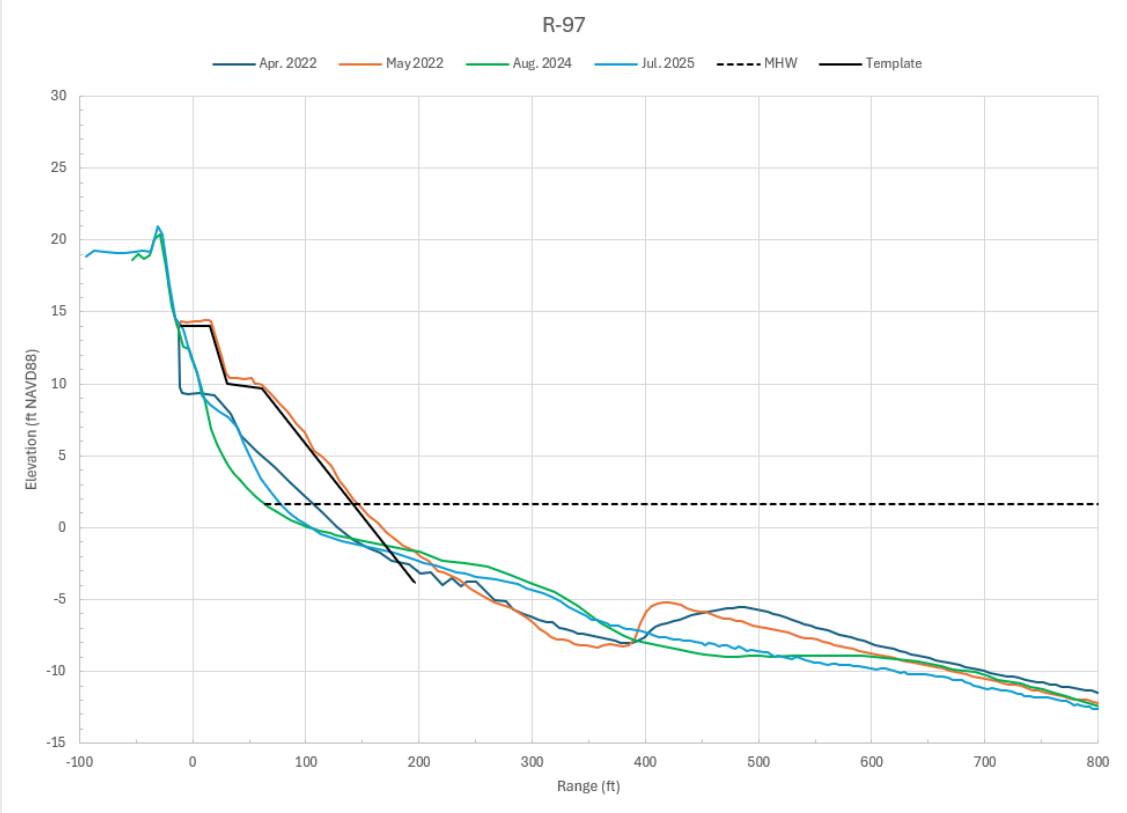

R-95
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

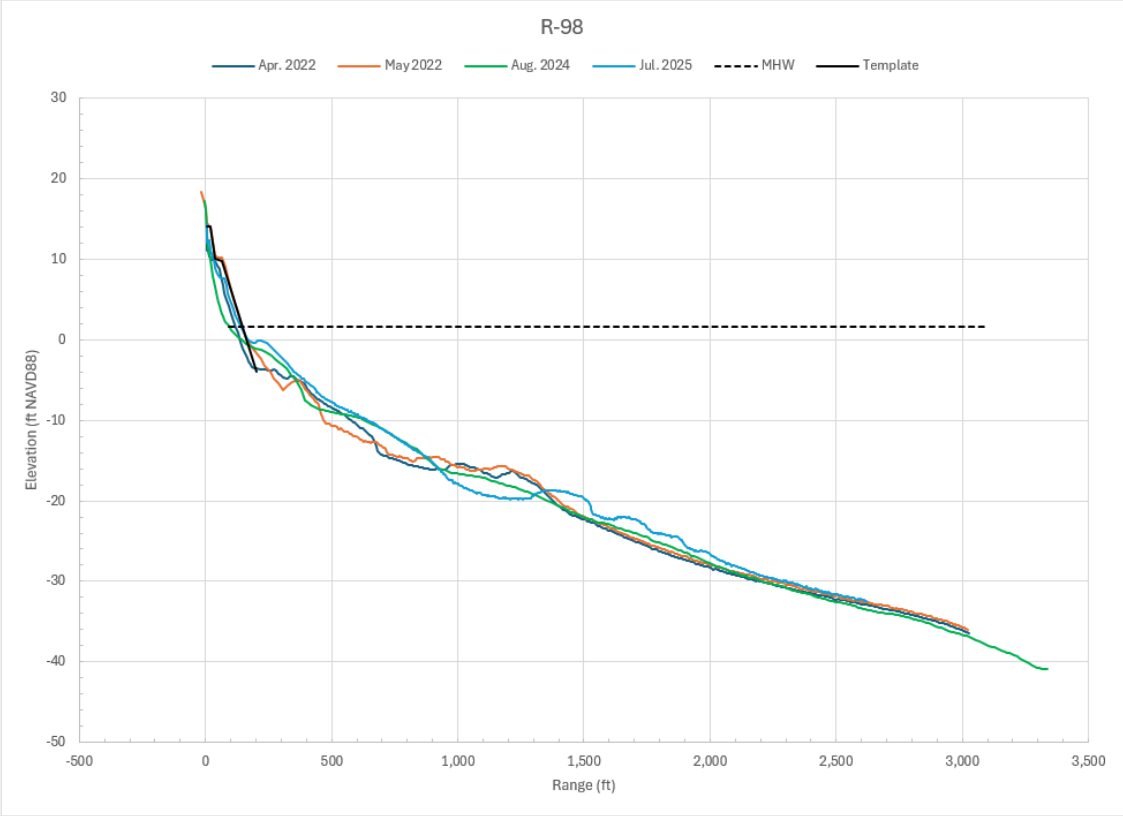

R-95
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

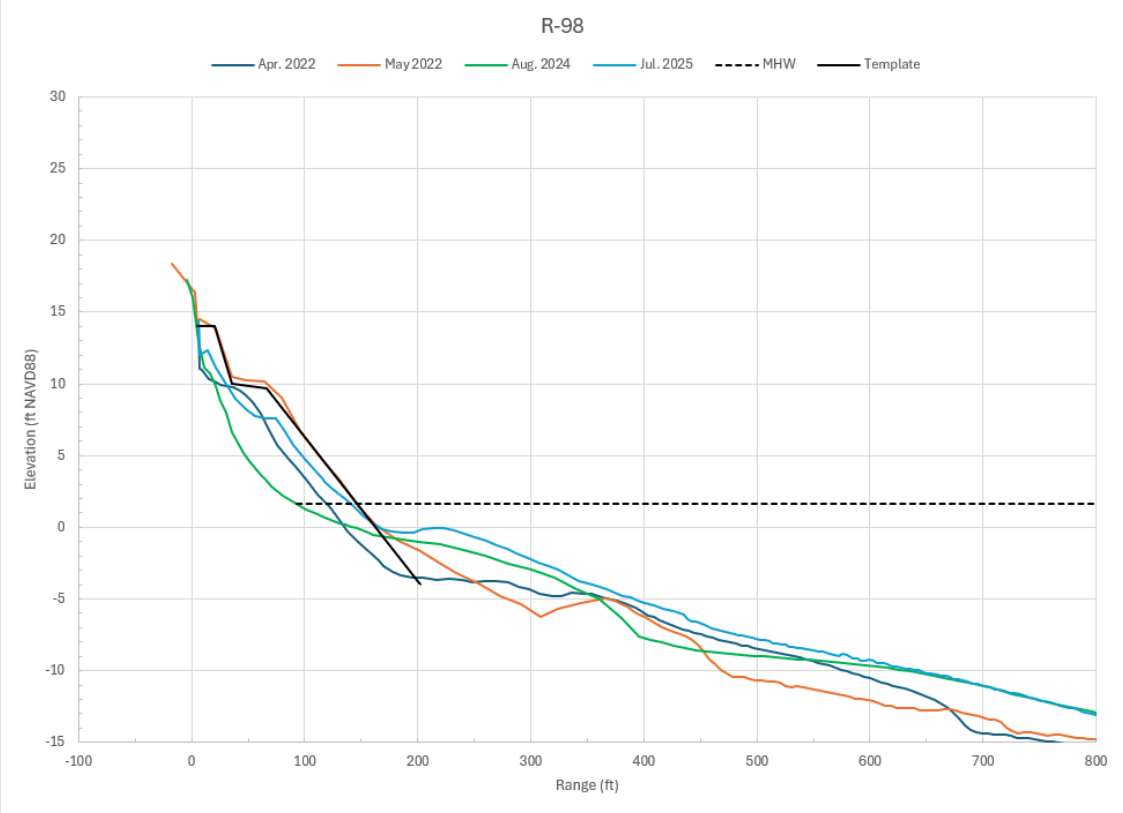

R-96
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

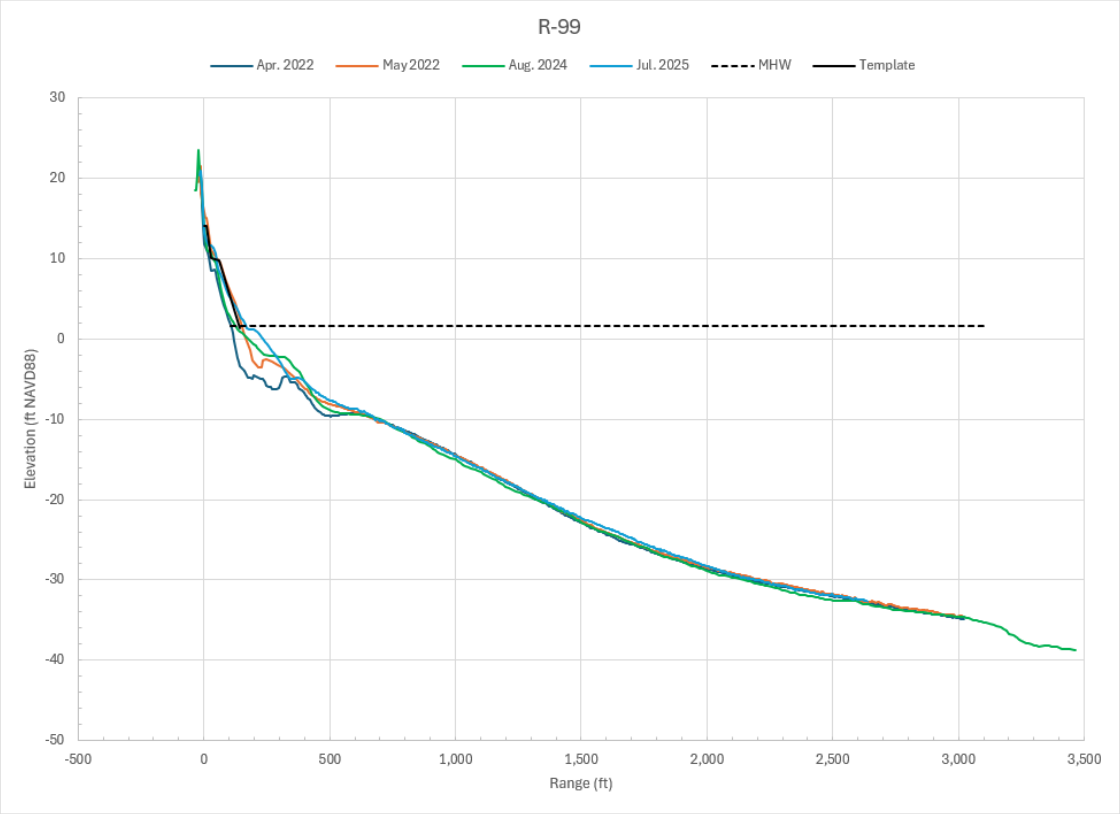

R-96
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

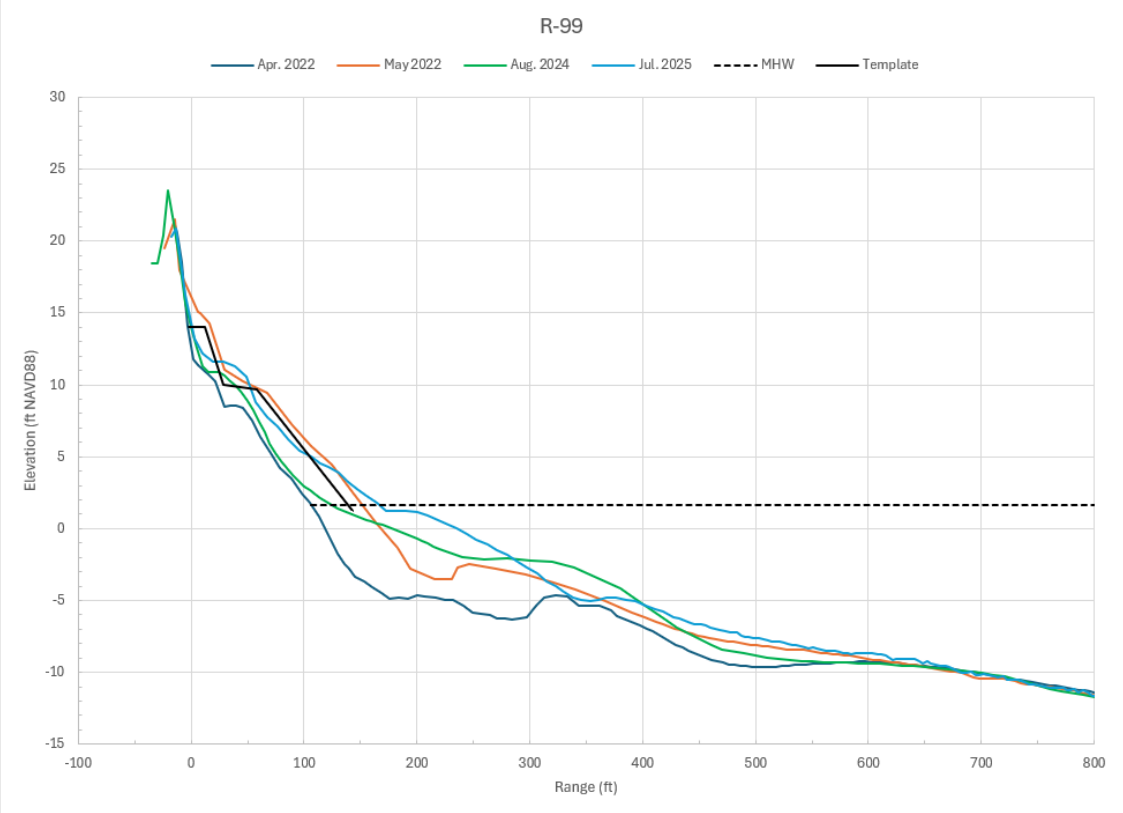

R-97
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

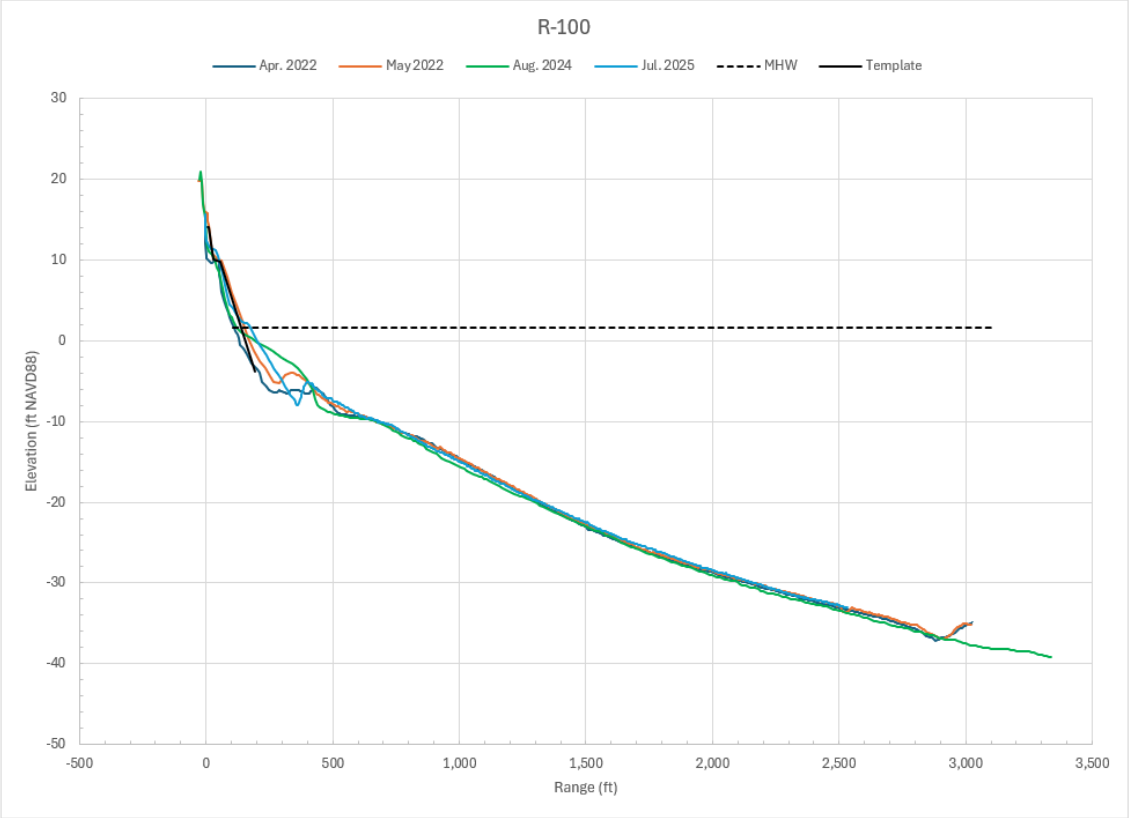

R-97
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

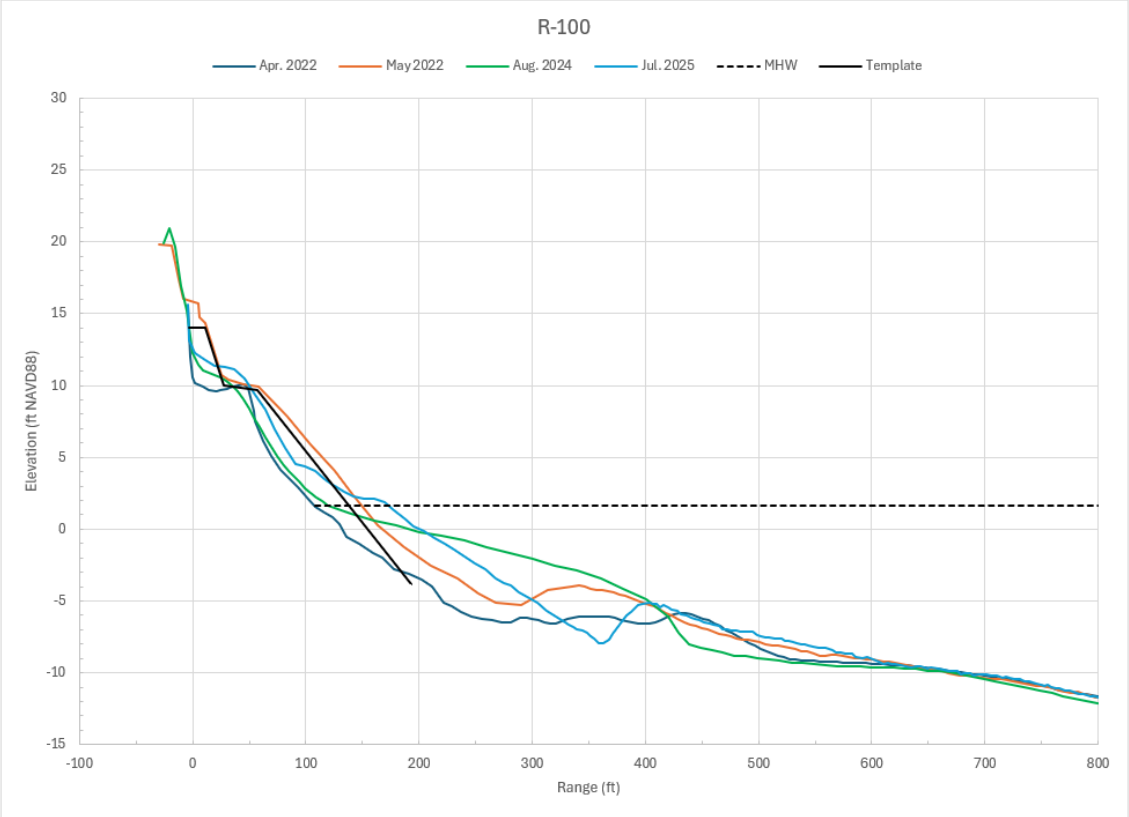

R-98
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

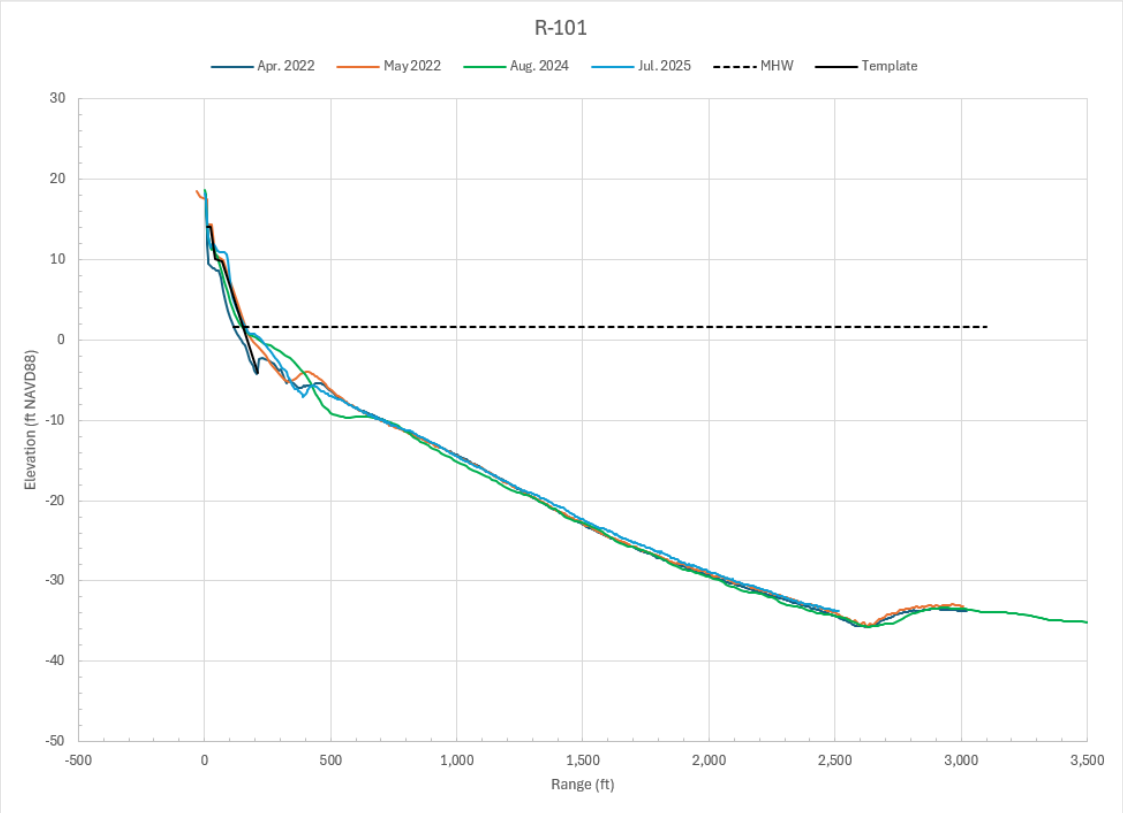

R-98
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

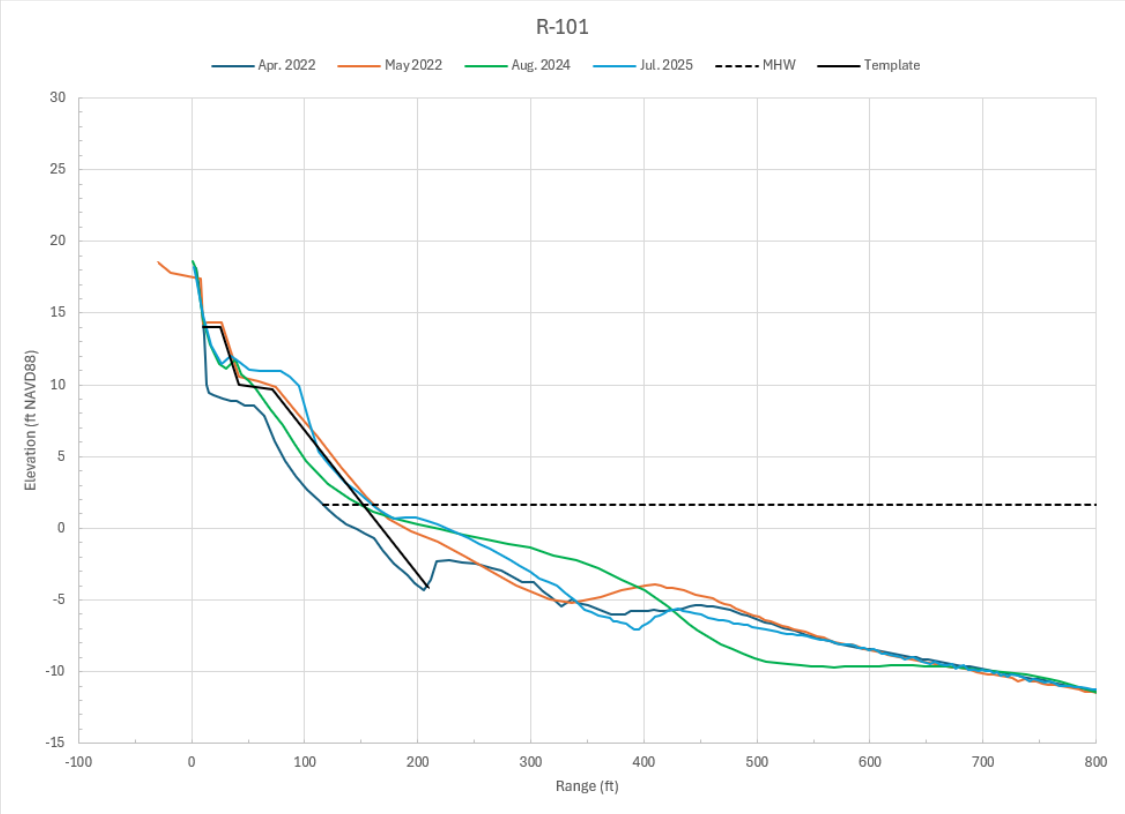

R-99
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

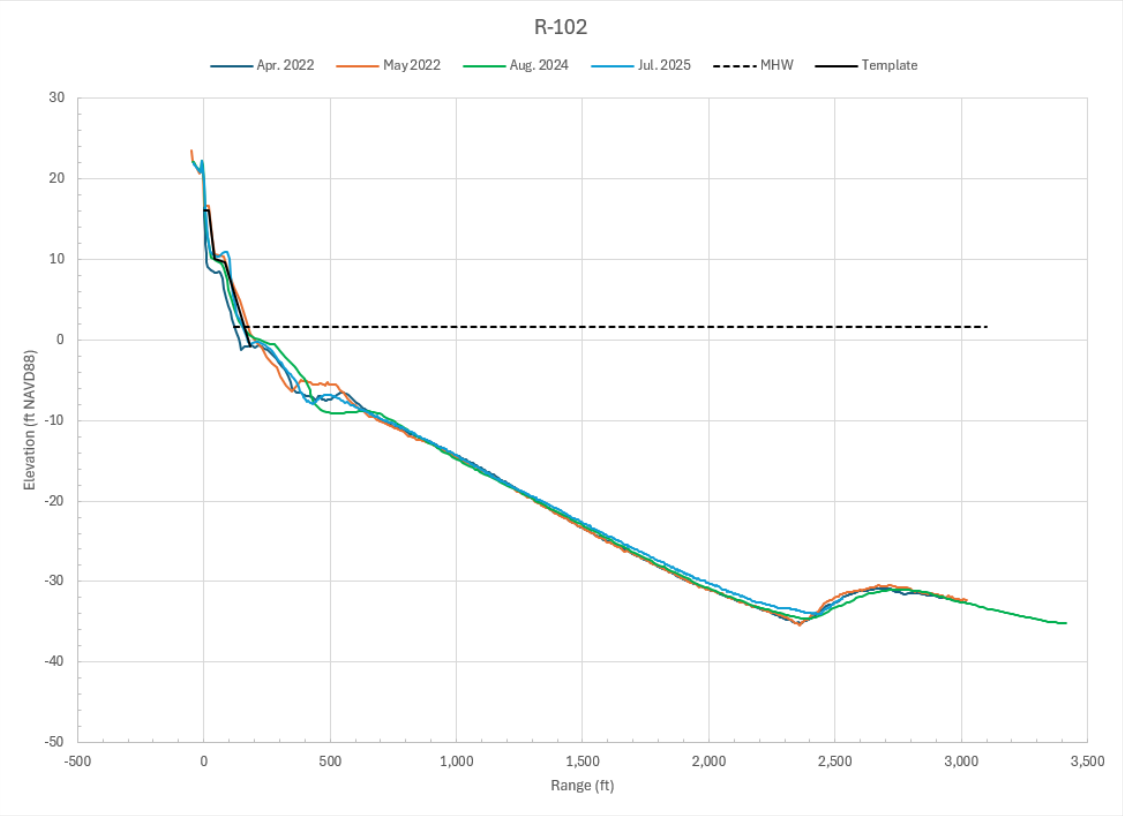

R-99
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

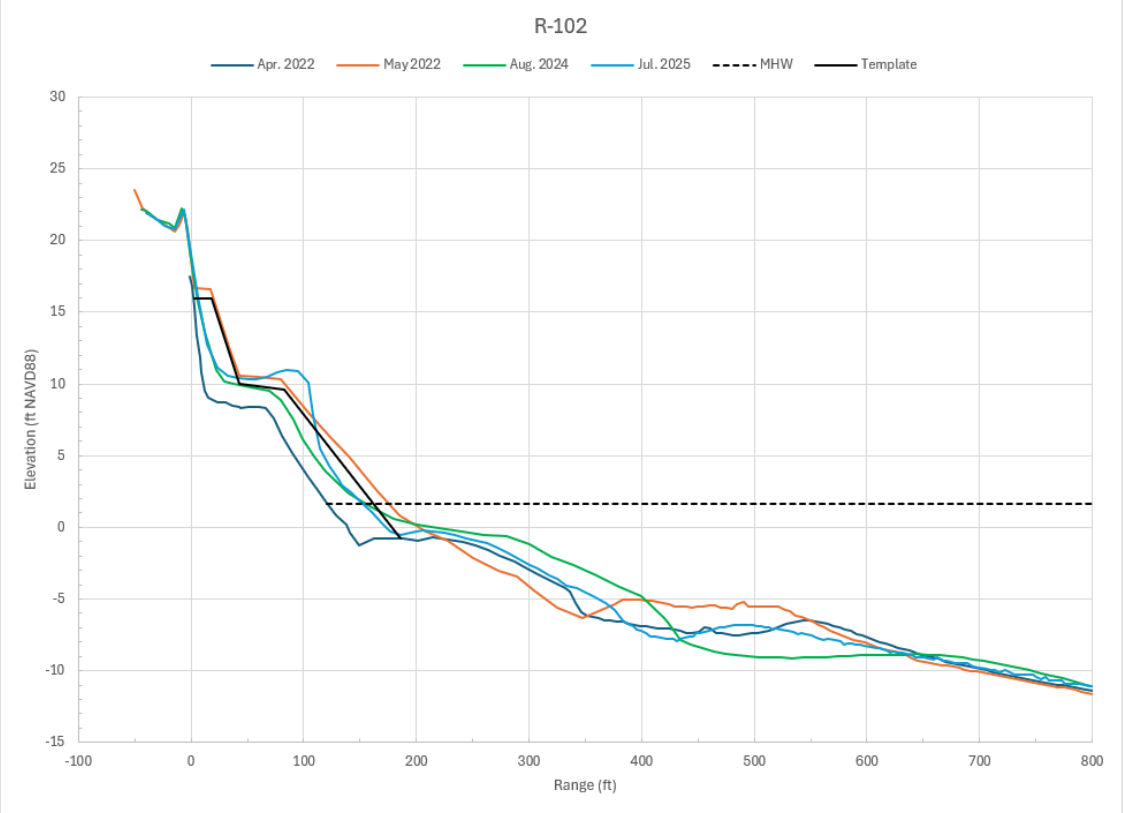

R-100
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
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-30
-40
-50
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500
1,000
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2,500
3,000
3,500

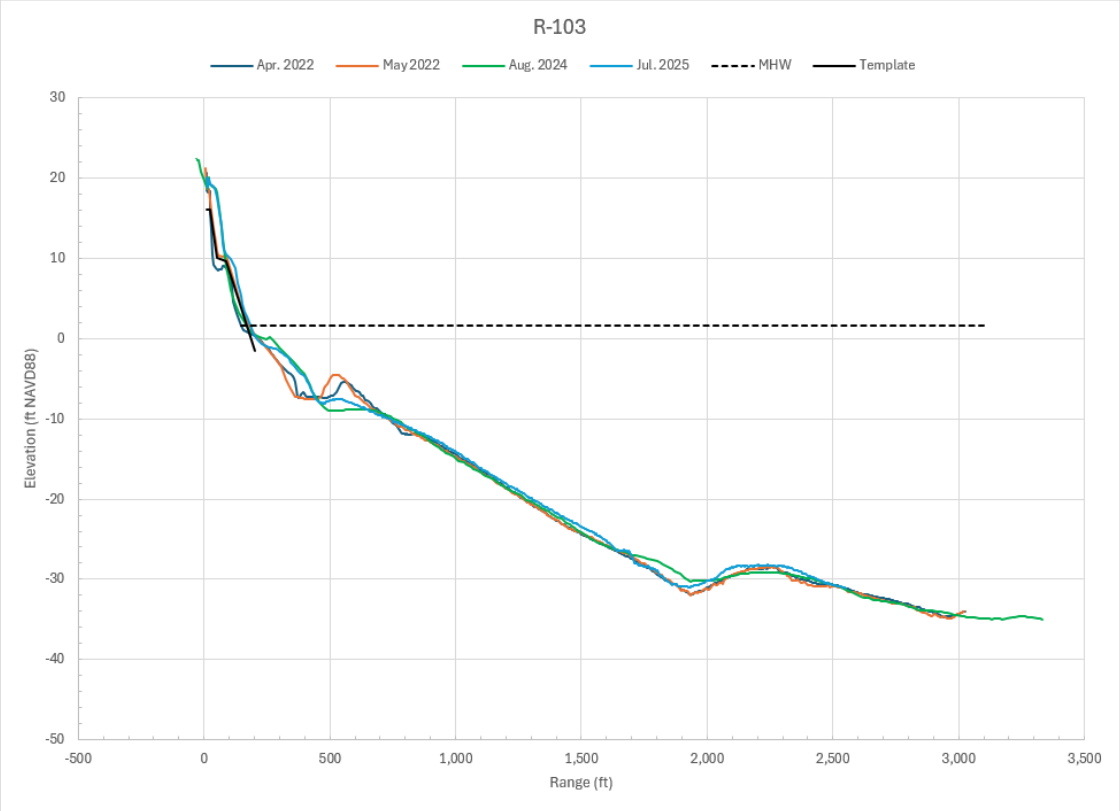

R-100
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
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5
0
-5
-10
-15
-100
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100
200
300
400
500
600
700
800

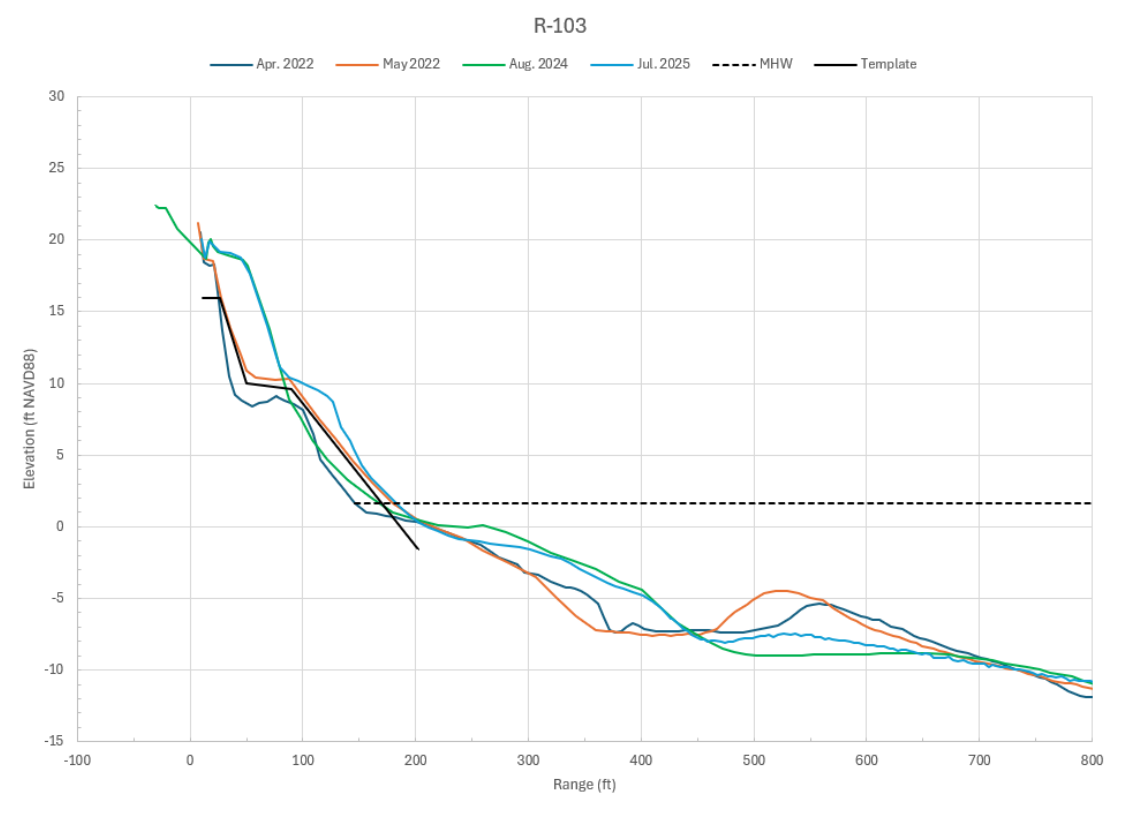

R-101
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

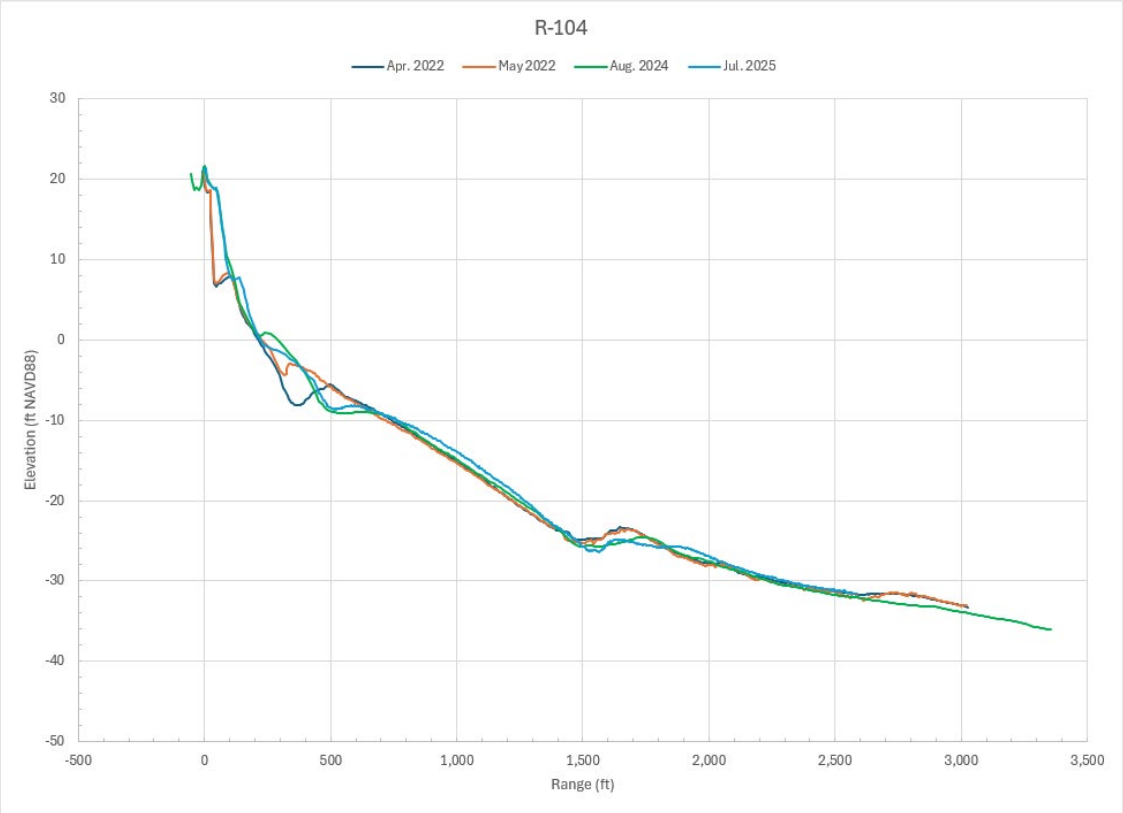

R-101
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

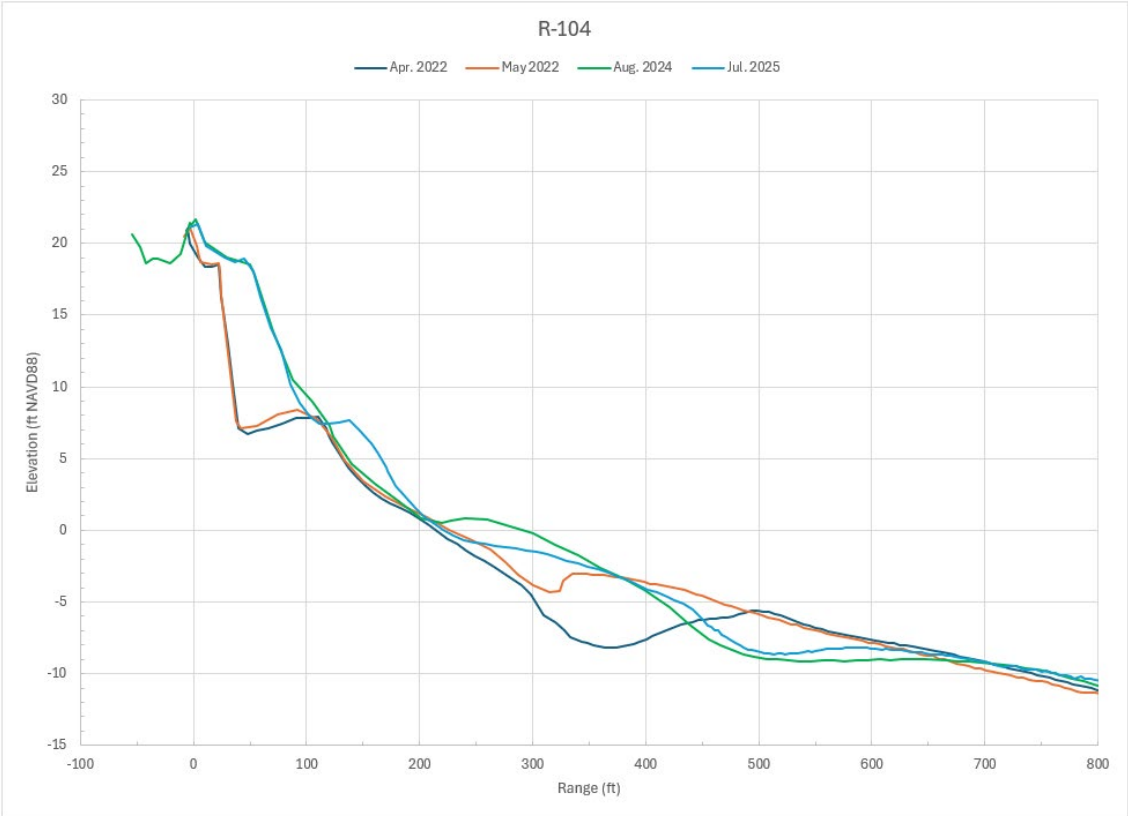

R-102
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

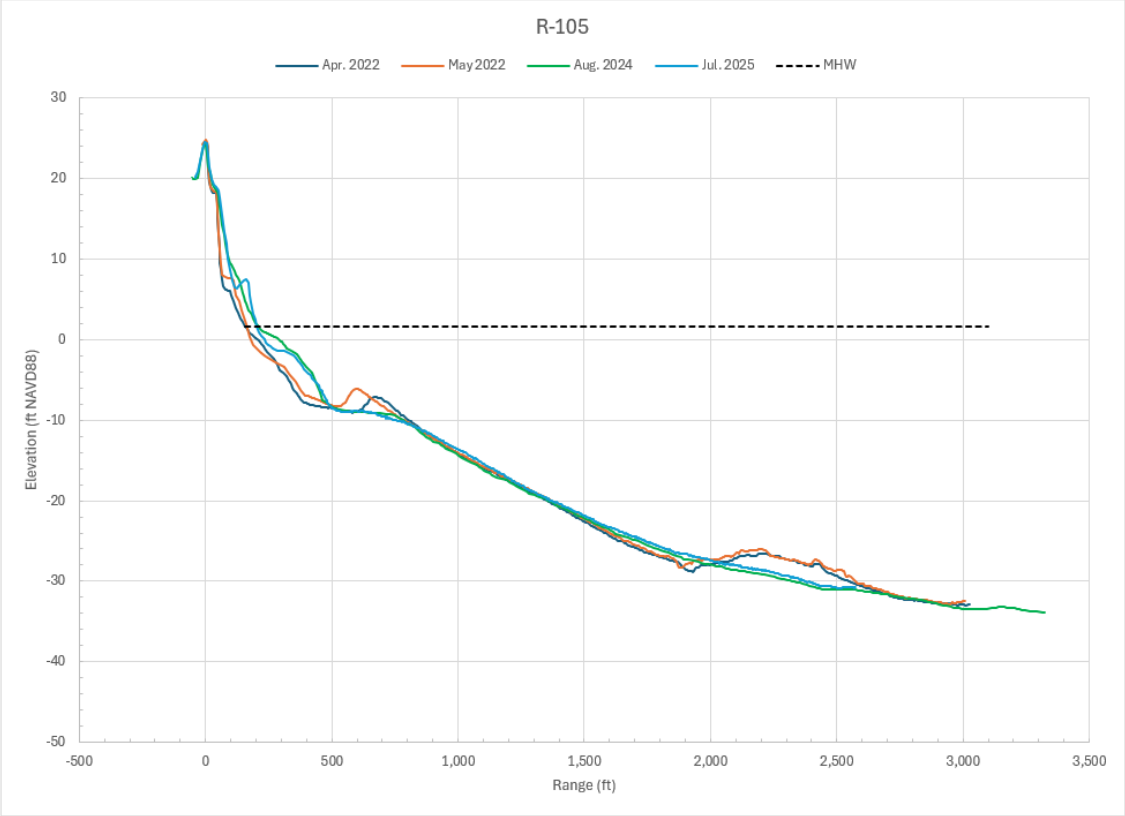

R-102
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

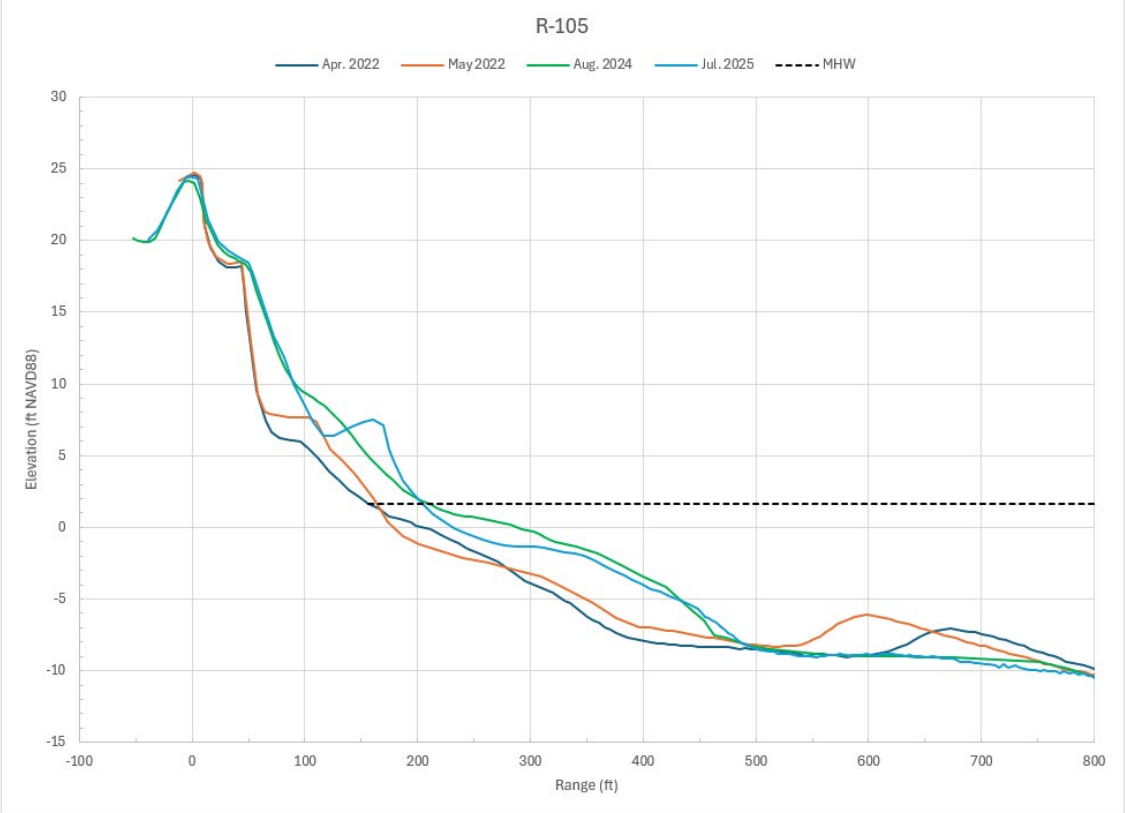

R-103
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

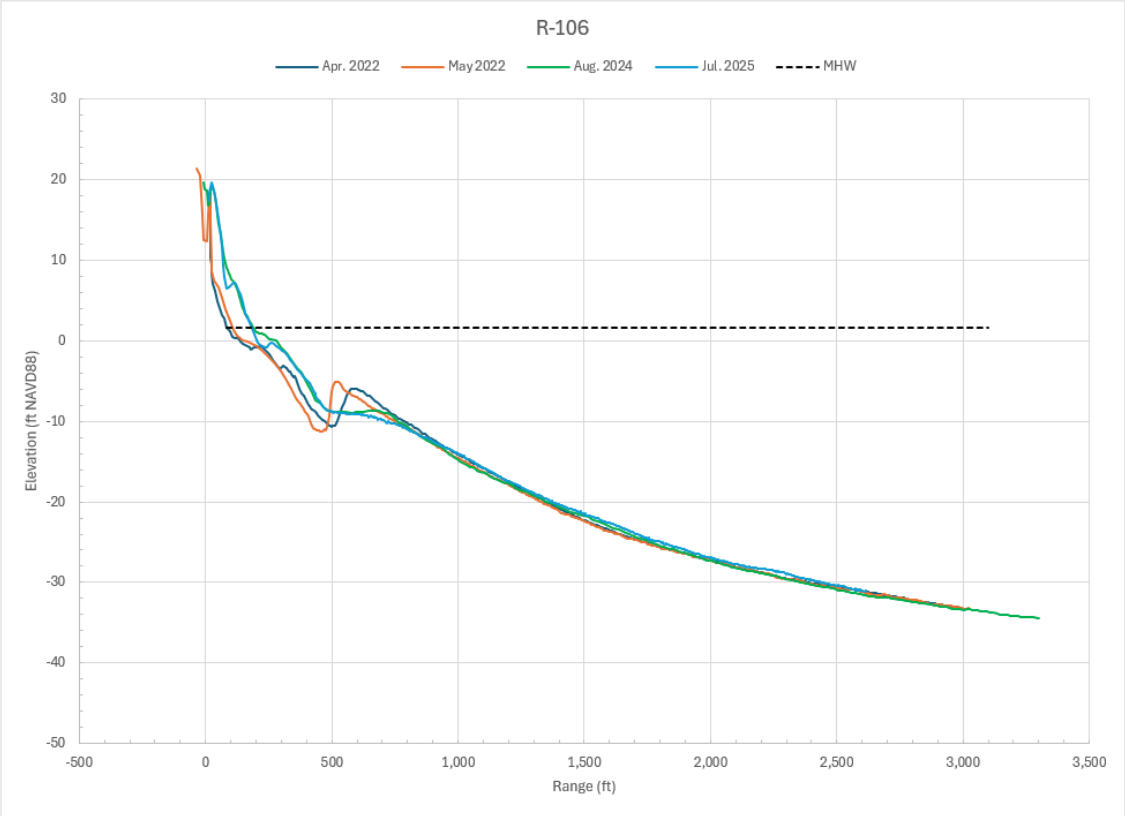

R-103
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Template
Elevation (ft NAVD88)
Range (ft)

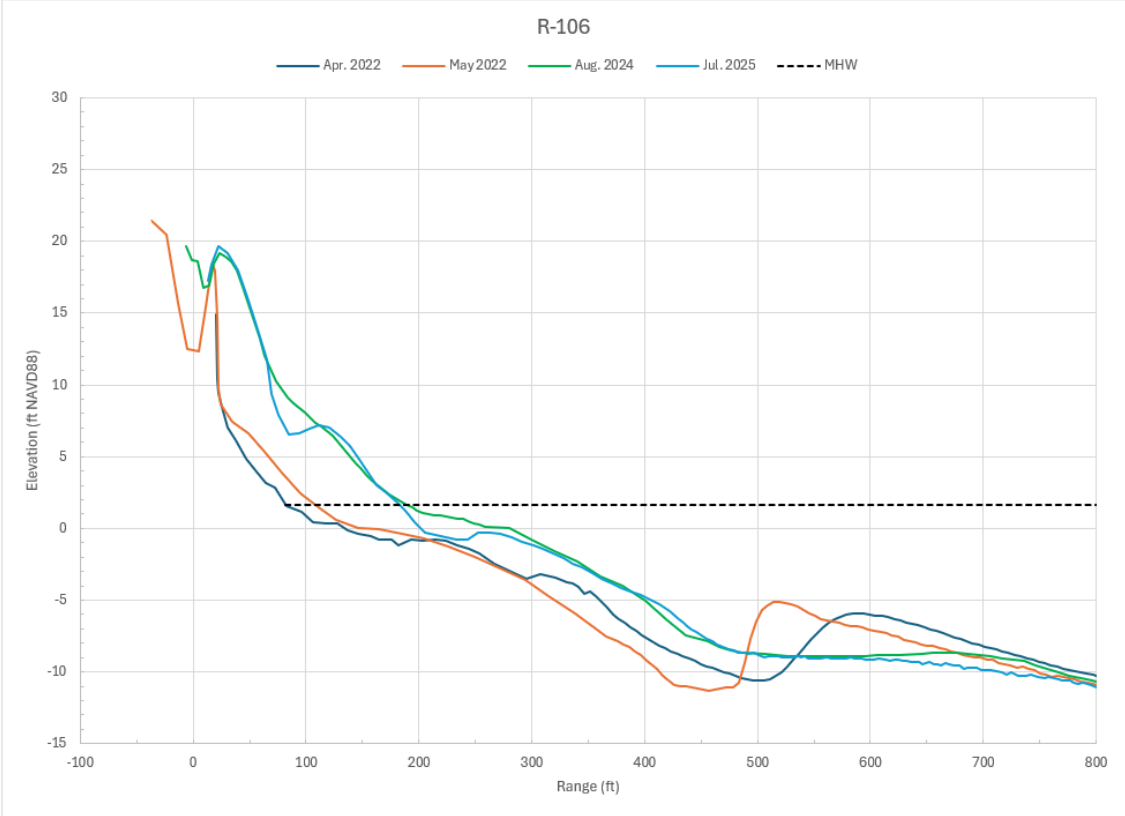

R-104
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

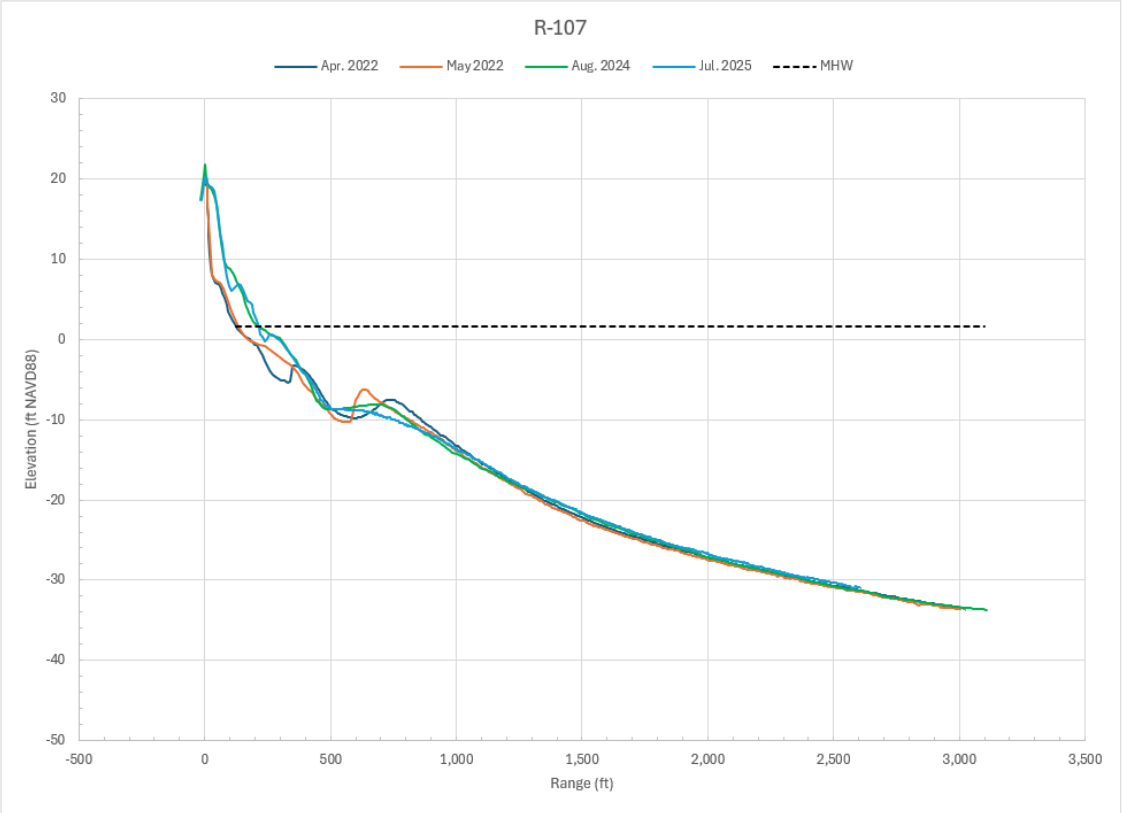

R-104
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

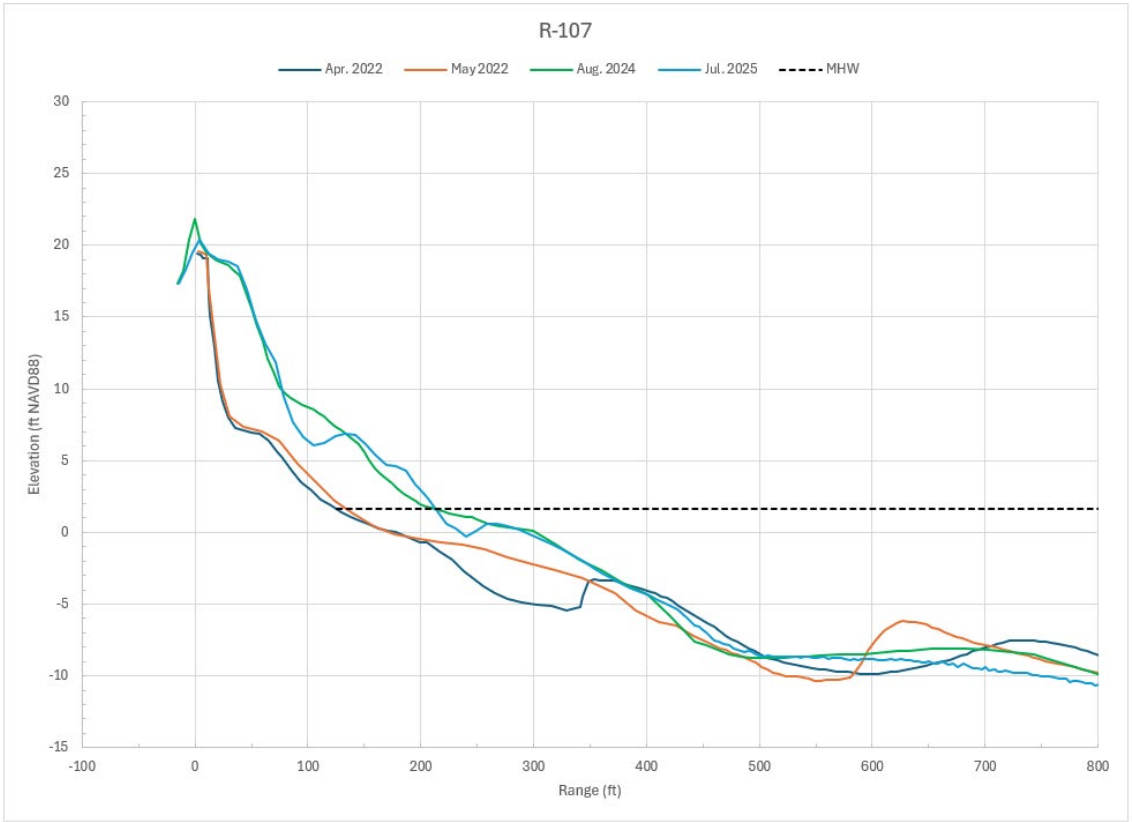

R-105
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

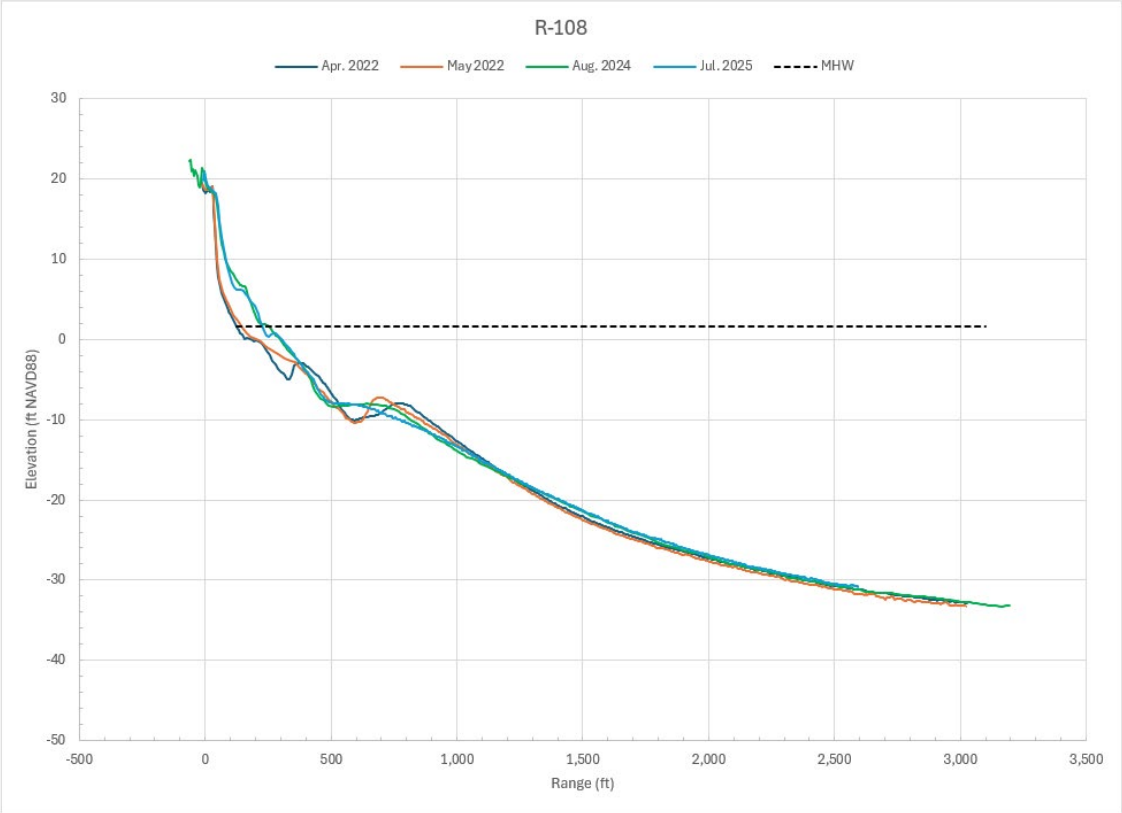

R-105
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)

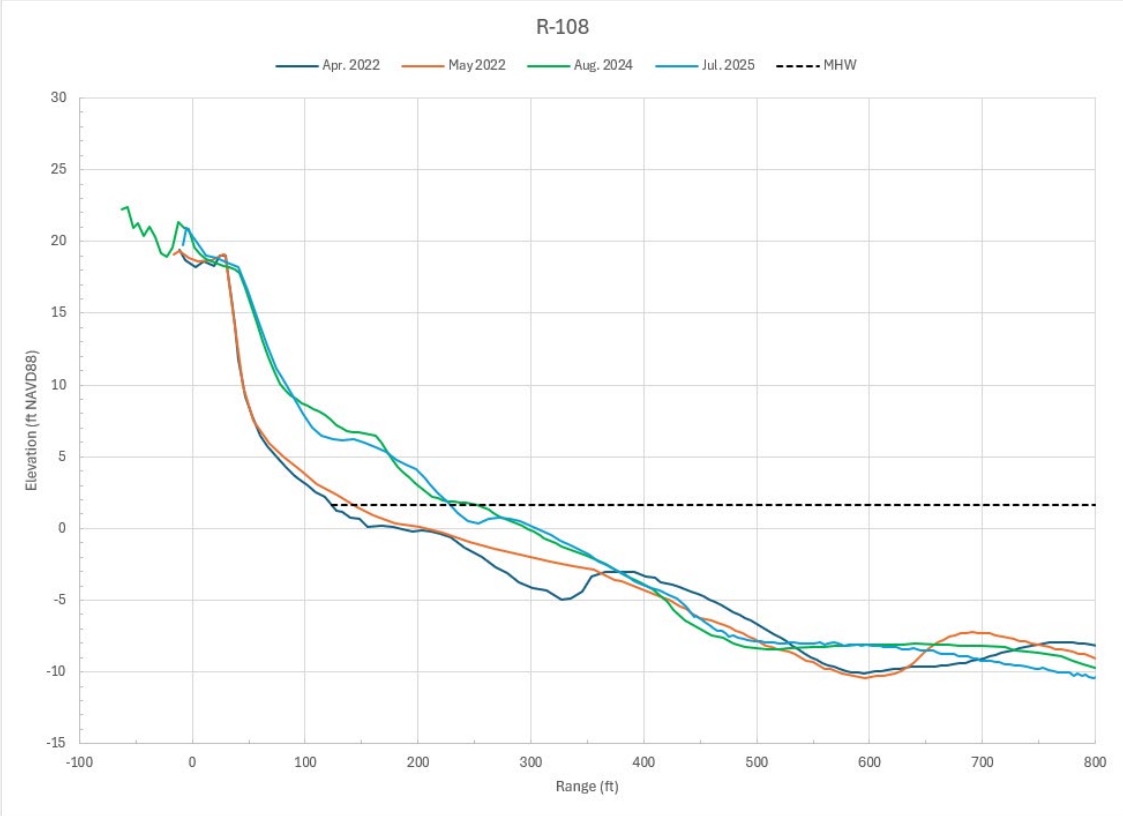

R-106
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500

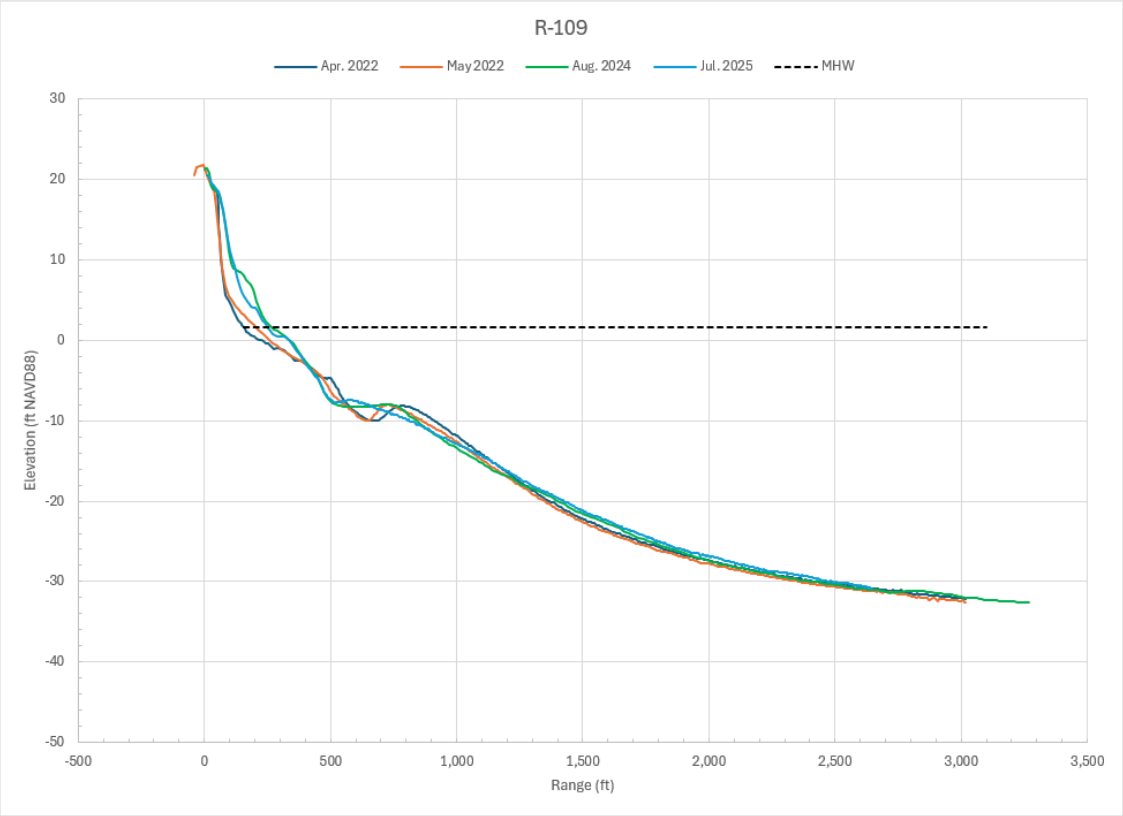

R-106
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

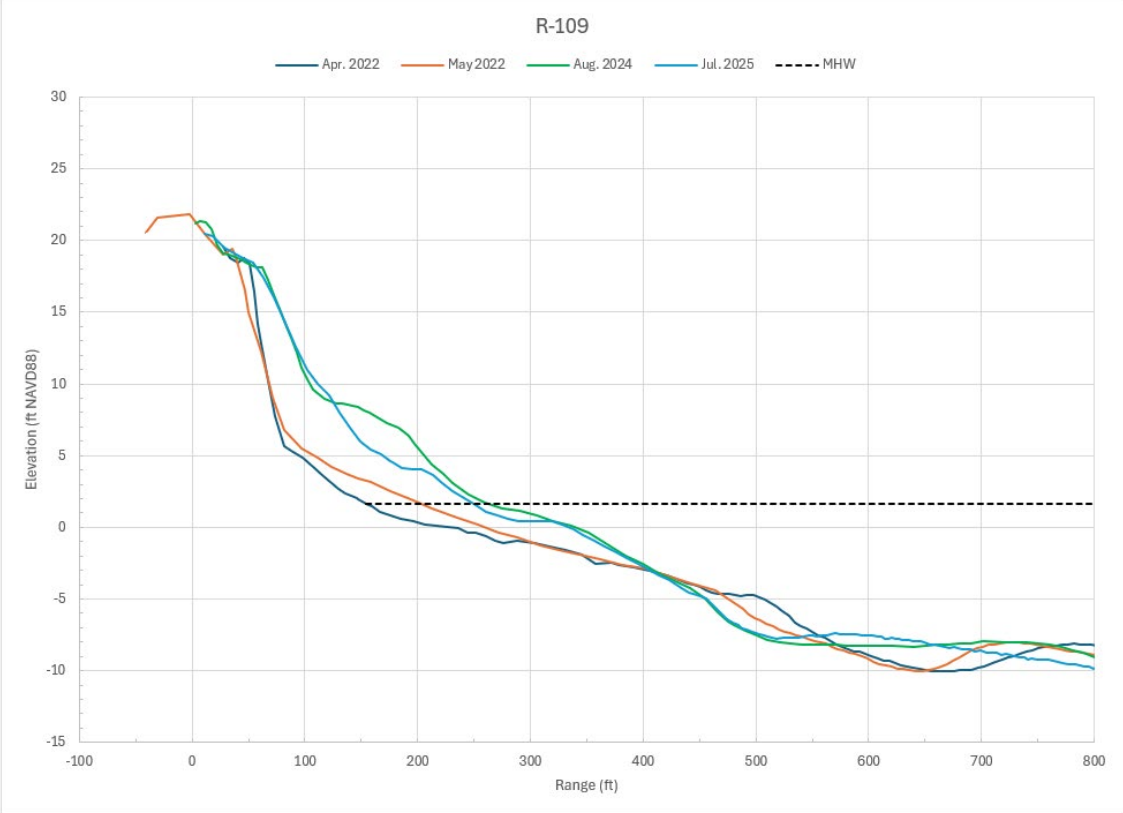

R-107
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500


R-107
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800


R-108
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500


R-108
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800


R-109
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
20
10
0
-10
-20
-30
-40
-50
-500
0
500
1,000
1,500
2,000
2,500
3,000
3,500


R-109
Apr. 2022
May 2022
Aug. 2024
Jul. 2025
MHW
Elevation (ft NAVD88)
Range (ft)
30
25
20
15
10
5
0
-5
-10
-15
-100
0
100
200
300
400
500
600
700
800

APPENDIX C

2025 AERIAL PHOTOGRAPHS WITH MHW LINES



Figure C.1. 2025 Aerial Photograph with MHW Lines from R-71 to R-73.



Figure C.2. 2025 Aerial Photograph with MHW Lines from R-73 to R-75.

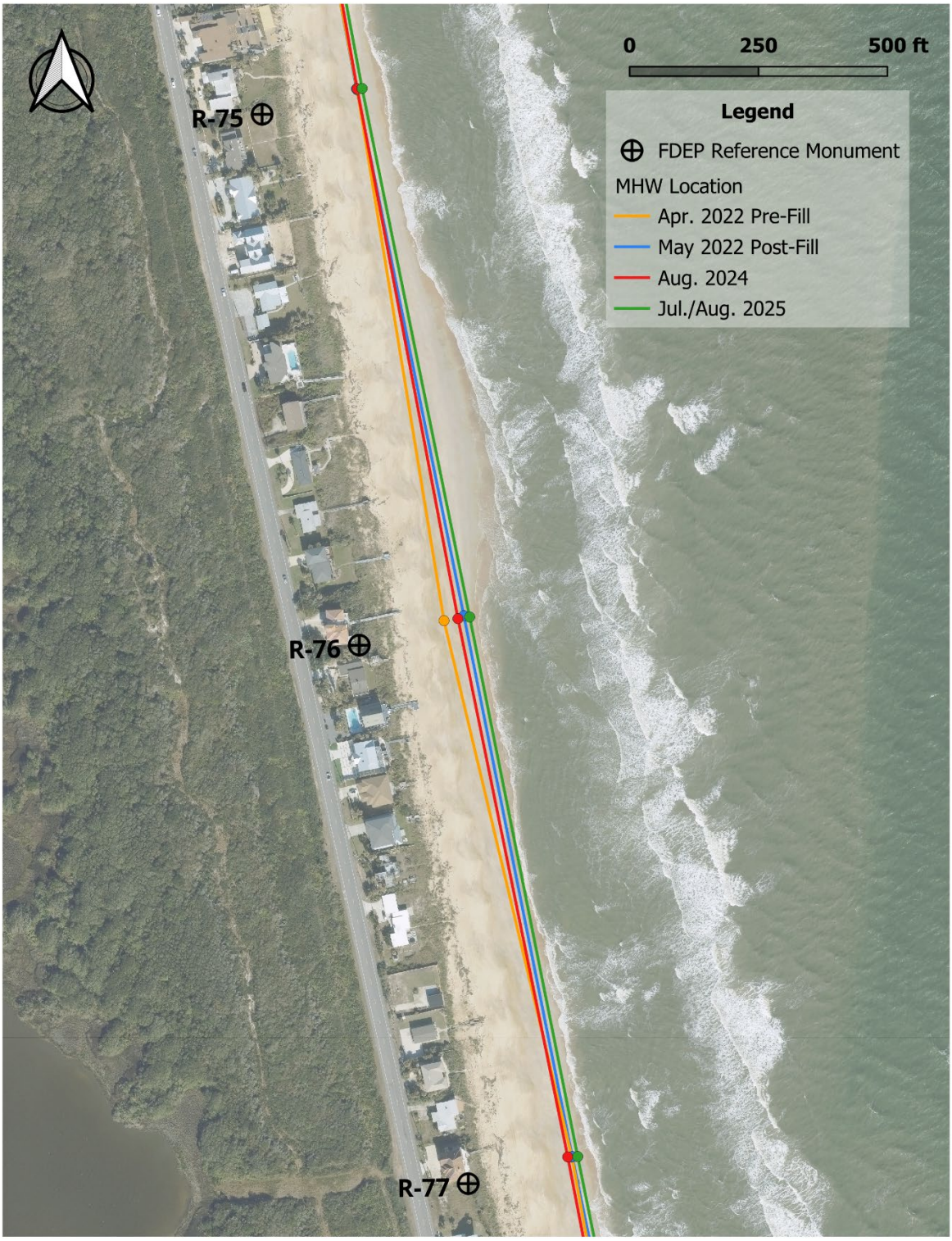


Figure C.3. 2025 Aerial Photograph with MHW Lines from R-75 to R-77.

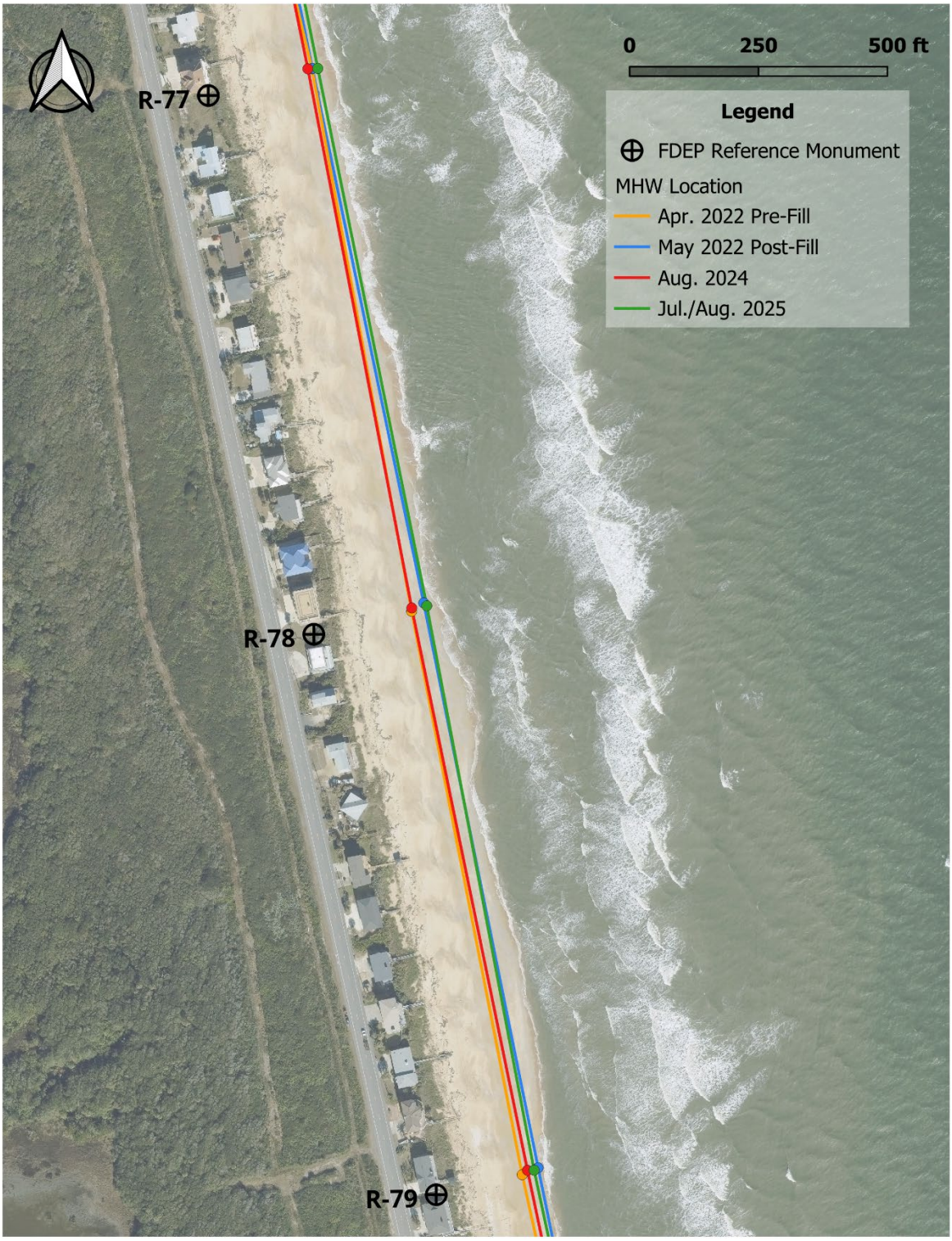


Figure C.4. 2025 Aerial Photograph with MHW Lines from R-77 to R-79.



Figure C.5. 2025 Aerial Photograph with MHW Lines from R-79 to R-81.



Figure C.6. 2025 Aerial Photograph with MHW Lines from R-81 to R-83.

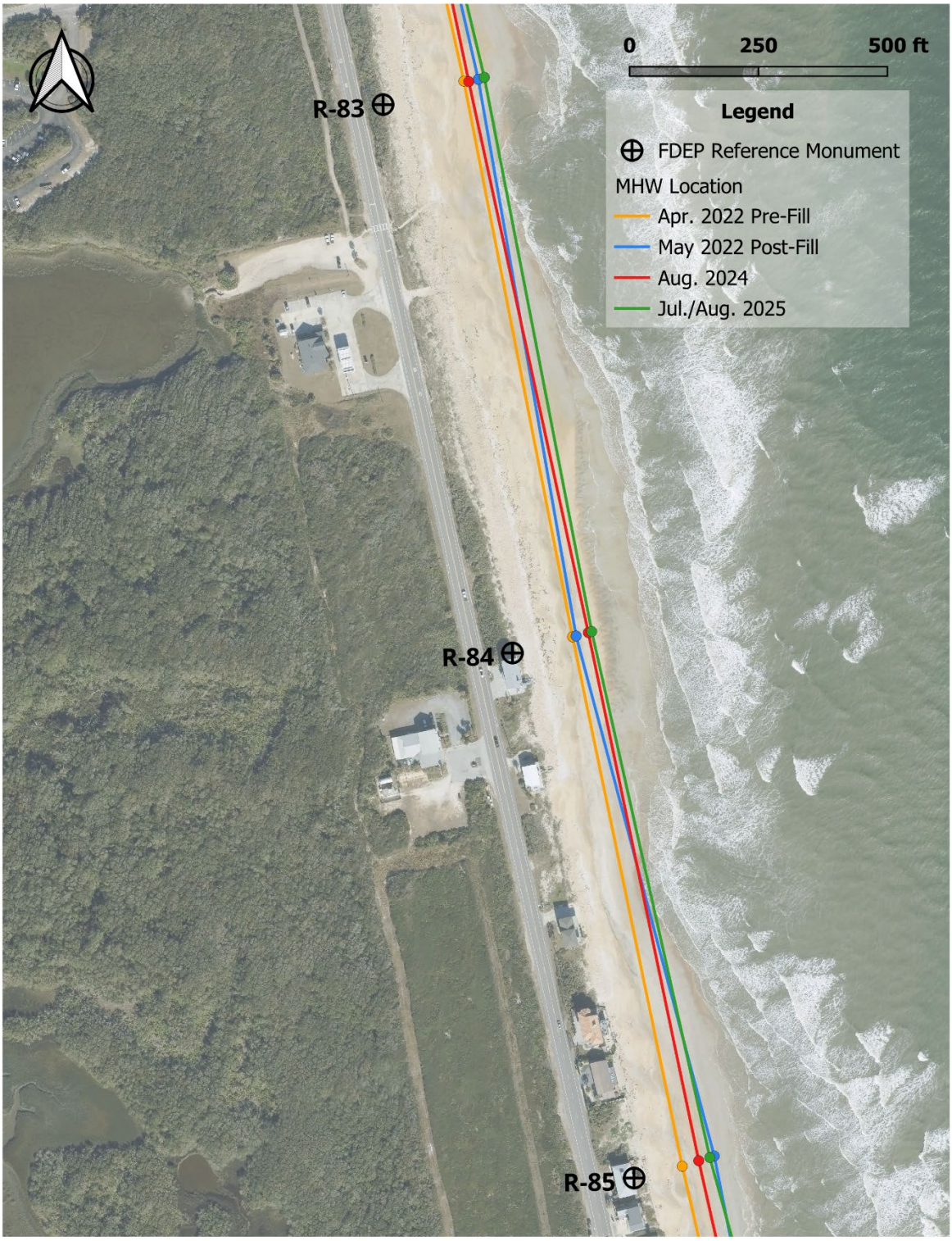


Figure C.7. 2025 Aerial Photograph with MHW Lines from R-83 to R-85.

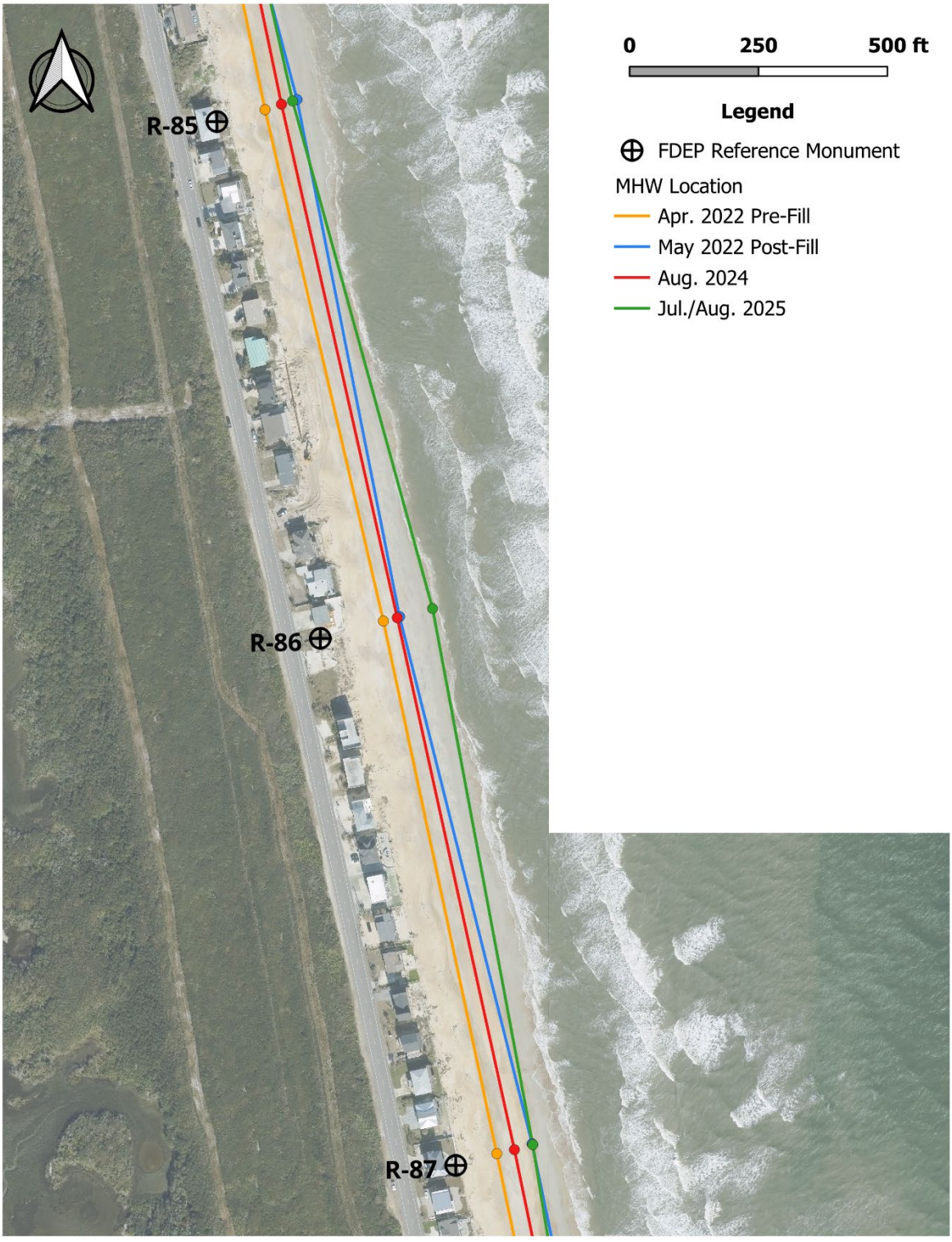


Figure C.8. 2025 Aerial Photograph with MHW Lines from R-85 to R-87.

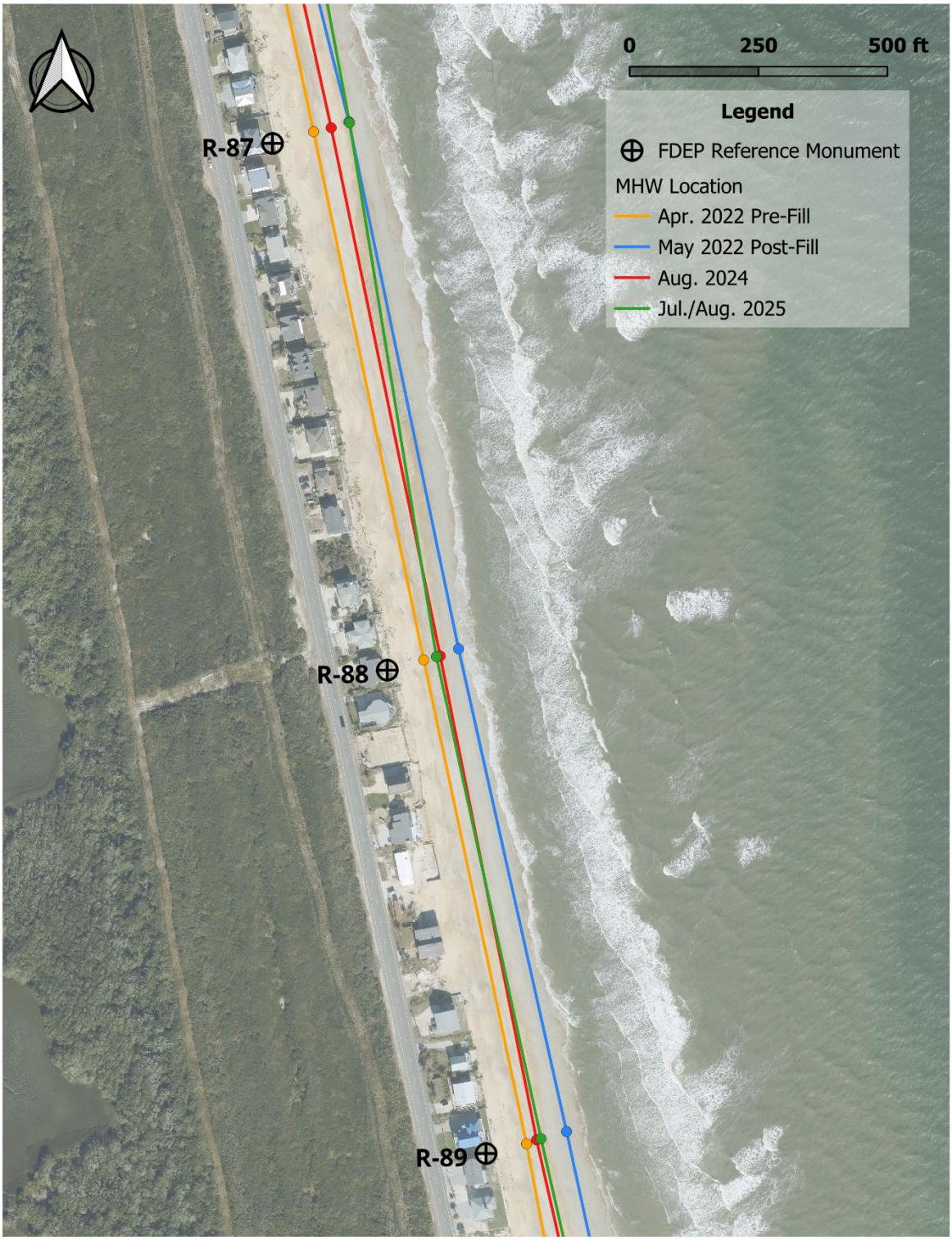


Figure C.9. 2025 Aerial Photograph with MHW Lines from R-87 to R-89.



Figure C.10 2025 Aerial Photograph with MHW Lines from R-89 to R-91.



Figure C.11 2025 Aerial Photograph with MHW Lines from R-91 to R-93.

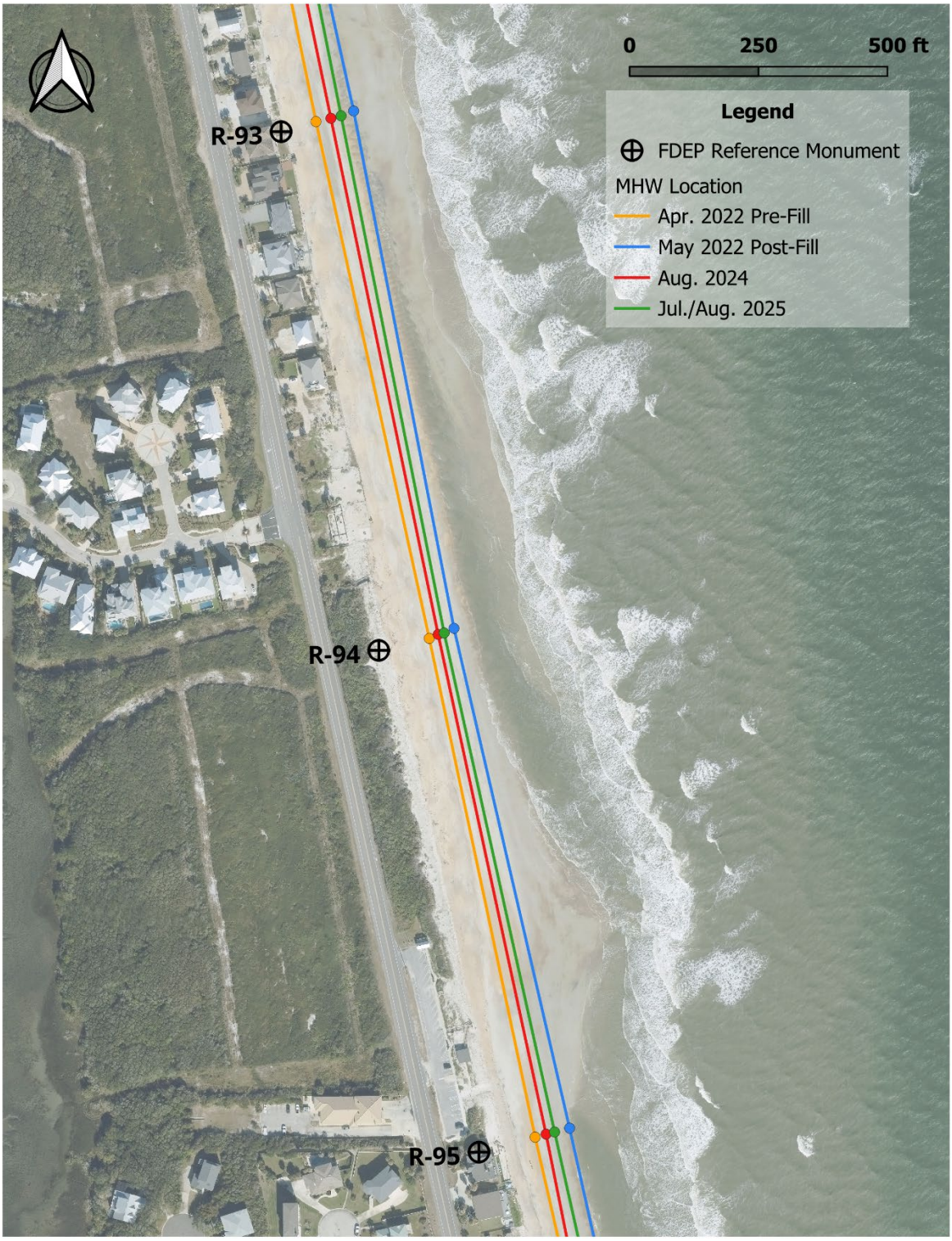


Figure C.12. 2025 Aerial Photograph with MHW Lines from R-93 to R-95.



Figure C.13. 2025 Aerial Photograph with MHW Lines from R-95 to R-97.

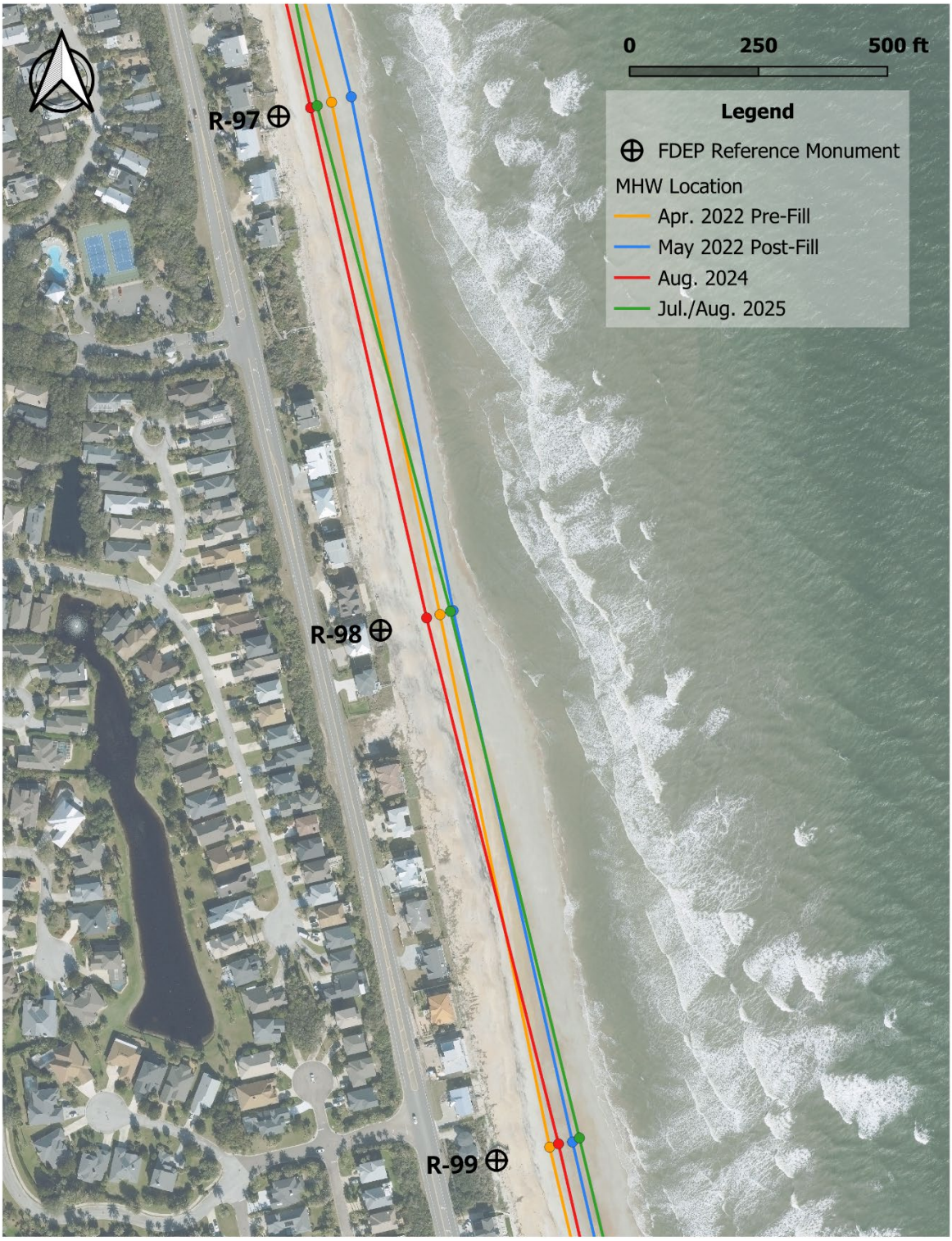


Figure C.14. 2025 Aerial Photograph with MHW Lines from R-97 to R-99.

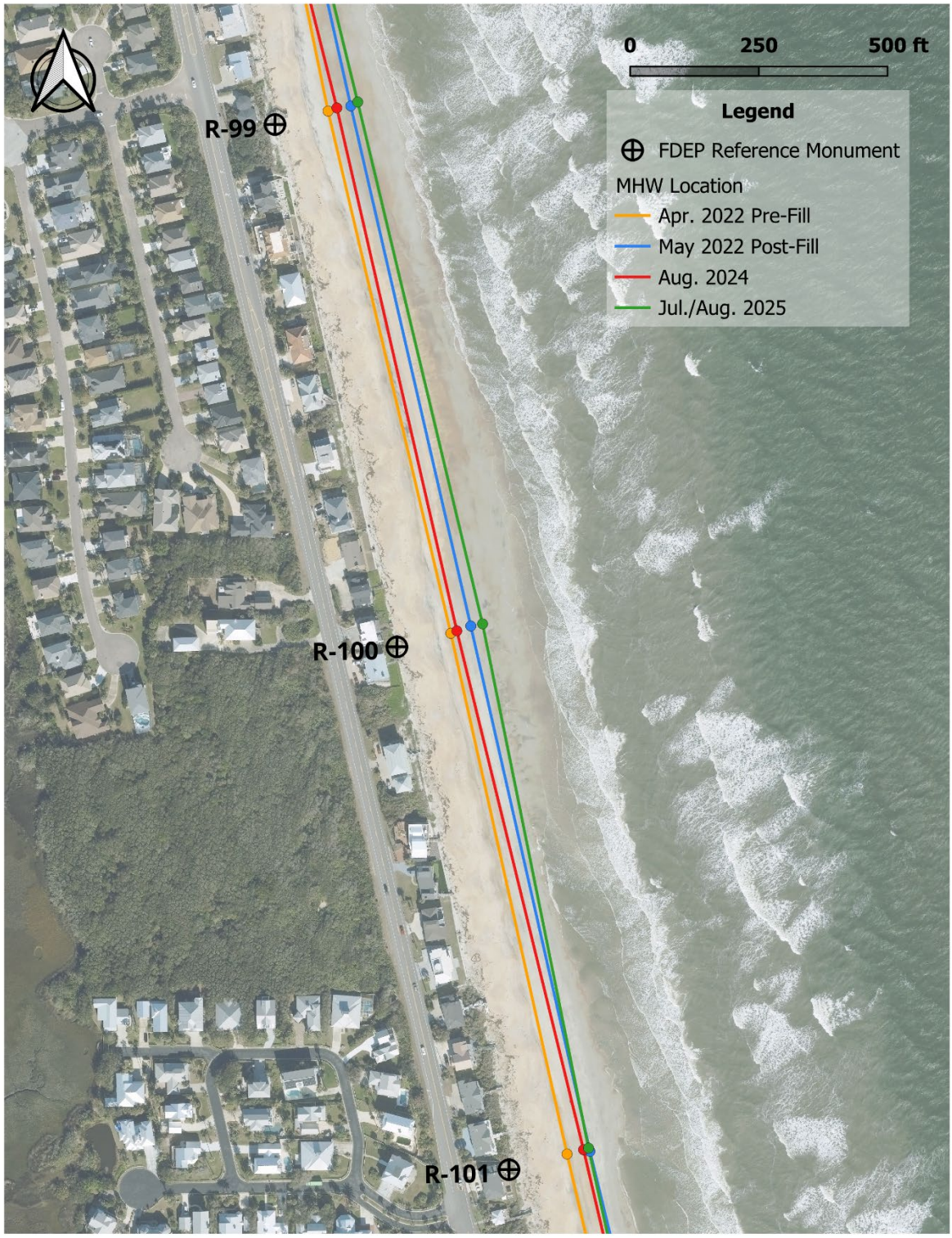


Figure C.15. 2025 Aerial Photograph with MHW Lines from R-99 to R-101.



Figure C.16. 2025 Aerial Photograph with MHW Lines from R-101 to R-103.



Figure C.17. 2025 Aerial Photograph with MHW Lines from R-103 to R-105.



Figure C.18 2025 Aerial Photograph with MHW Lines from R-105 to R-107.

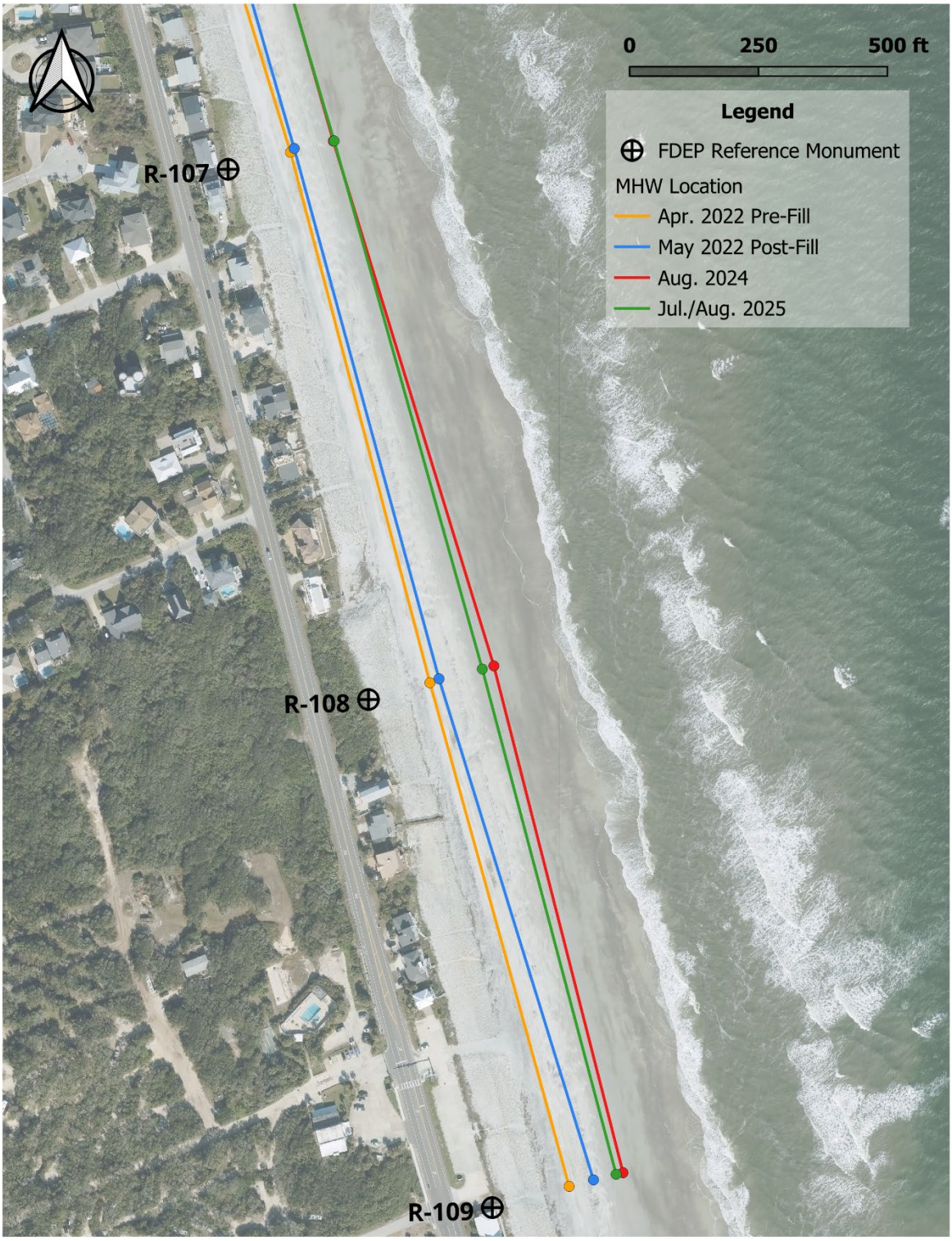


Figure C.19. 2025 Aerial Photograph with MHW Lines from R-107 to R-109.

APPENDIX D

VOLUME CHANGE (CY) TABLES

Table D.1. Dune to MHW Volume Changes.

Area	Monument	Volume Change (cy)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	106	-100	4,910
	R-72	993	3,829	4,132
	R-73	-2,778	-3,809	2,986
	R-74	3,463	894	2,870
	R-75	2,598	-11	1,129
	R-76	7,081	1,444	2,727
Fill Placement Area	R-77	11,971	-732	2,305
	R-78	16,014	2,431	15,414
	R-79	15,121	-1,745	3,347
	R-80	12,106	-872	463
	R-81	8,493	-11,087	-909
	R-82	9,224	-5,994	2,535
	R-83	13,424	6,238	7,505
	R-84	16,642	9,520	3,685
	R-85	13,834	-2,569	9,169
	R-86	22,618	5,496	15,888
	R-87	21,275	-1,523	12,761
	R-88	6,776	-16,484	1,586
	R-89	10,935	-21,378	5,968
	R-90	12,649	-22,841	1,090
	R-91	10,694	-15,160	3,328
	R-92	12,885	-8,521	7,854
	R-93	13,708	-10,596	9,135
	R-94	12,030	-13,381	5,820
	R-95	6,039	-19,549	654
	R-96	6,042	-19,344	6,121
	R-97	-1,709	-24,303	5,877
	R-98	3,712	-9,057	13,480
	R-99	13,628	-4,158	9,675
	R-100	9,771	-6,349	7,501
	R-101	18,241	67	8,908
	R-102	16,865	-5,865	6,252
	R-103	25,055	13,770	8,972
South Reference Area	R-104	26,570	24,716	3,397
	R-105	24,882	18,795	2,968
	R-106	37,449	32,989	-1,259
	R-107	40,887	37,759	-160
	R-108	33,770	31,607	-334
	R-109	32,329	29,058	-6,642
Total (cy)				
North Reference Area		11,462	2,248	18,754
Fill Placement Area		338,045	-183,985	174,380
South Reference Area		195,887	174,925	-2,031

Table D.2. MHW to -20 ft NAVD88 Volume Changes.

Area	Monument	Volume Change (cy)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	-33,047	-39,507	3,294
	R-72	-29,920	-23,280	4,687
	R-73	-25,819	-19,675	-4,116
	R-74	-1,634	-13,870	-1,187
	R-75	-5,916	-17,053	2,949
	R-76	-10,063	-15,095	-701
Fill Placement Area	R-77	-36,237	-42,050	1,273
	R-78	444	-17,858	14,508
	R-79	11,950	-4,173	25,196
	R-80	-5,499	-23,413	22,489
	R-81	-13,519	-31,028	16,191
	R-82	-8,184	-32,573	15,303
	R-83	-1,516	-16,288	15,840
	R-84	-4,314	-5,689	10,661
	R-85	3,099	-11,890	39,763
	R-86	25,862	11,416	3,133
	R-87	-16,681	-35,303	-6,492
	R-88	-7,663	-26,066	-7,981
	R-89	-12,677	-28,678	22,283
	R-90	58,490	16,554	4,013
	R-91	-21,089	-26,961	511
	R-92	-1,727	-7,546	7,213
	R-93	4,160	-4,267	6,579
	R-94	5,429	-1,935	-3,532
	R-95	-2,478	29,165	765
	R-96	-6,397	-1,788	6,156
	R-97	-29,231	-13,813	-5,844
	R-98	22,498	18,162	8,183
	R-99	50,165	16,198	20,195
	R-100	20,567	-1,675	5,960
	R-101	11,990	294	11,780
	R-102	4,536	201	842
	R-103	8,732	11,551	10,097
South Reference Area	R-104	35,038	18,201	14,816
	R-105	24,635	14,566	3,068
	R-106	10,403	28,456	500
	R-107	12,274	16,262	-613
	R-108	7,504	12,356	1,518
	R-109	1,911	13,824	6,504
Total (cy)				
North Reference Area		-106,398	-128,481	4,926
Fill Placement Area		60,708	-229,454	245,086
South Reference Area		91,765	103,666	25,794

Table D.3. Below -20 ft NAVD88 Volume Changes.

Area	Monument	Volume Change (cy)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	11,193	12,204	26,636
	R-72	-340	5,019	34,726
	R-73	19,343	22,217	14,923
	R-74	-9,208	-15,978	16,823
	R-75	-27,534	-32,861	9,897
	R-76	15,902	15,974	12,775
Fill Placement Area	R-77	21,142	23,826	26,985
	R-78	23,811	27,252	32,298
	R-79	32,096	28,676	55,079
	R-80	17,525	18,335	48,980
	R-81	17,639	6,720	33,529
	R-82	25,602	13,084	44,456
	R-83	33,785	25,103	50,208
	R-84	14,868	2,199	47,146
	R-85	2,724	-7,763	63,935
	R-86	51,160	43,603	60,637
	R-87	40,031	31,518	36,980
	R-88	-1,234	-10,082	-7,270
	R-89	-50,216	-57,638	26,184
	R-90	-4,511	5,186	10,030
	R-91	-11,994	-5,103	-1,852
	R-92	2,119	2,755	4,041
	R-93	34,413	37,372	35,368
	R-94	8,125	5,711	12,366
	R-95	-24,925	-12,192	-8,554
	R-96	13,742	31,722	40,566
	R-97	36,976	62,835	34,418
	R-98	69,830	46,236	93,118
	R-99	25,679	9,739	67,024
	R-100	19,887	4,355	66,002
	R-101	33,060	15,861	65,208
	R-102	38,790	30,718	48,450
	R-103	33,292	38,009	40,308
South Reference Area	R-104	-7,698	951	42,285
	R-105	-2,194	-22,849	34,221
	R-106	28,839	33,342	33,148
	R-107	27,427	45,212	18,904
	R-108	28,179	52,457	17,670
	R-109	35,856	59,975	27,677
Total (cy)				
North Reference Area		9,357	6,575	92,099
Fill Placement Area		503,415	418,040	606,174
South Reference Area		110,409	169,088	150,144

Table D.4. Total Volume Changes.

Area	Monument	Volume Change (cy)		
		Apr. 2022 Pre-Fill – July/Aug. 2025	May 2022 Post-Fill – July/Aug. 2025	July 2024 – July/Aug. 2025
North Reference Area	R-71	-32,941	-39,606	8,204
	R-72	-28,927	-19,451	8,820
	R-73	-28,597	-23,484	-1,130
	R-74	1,829	-12,976	1,683
	R-75	-3,317	-17,063	4,078
	R-76	-2,983	-13,651	2,026
Fill Placement Area	R-77	-24,266	-42,782	3,578
	R-78	16,459	-15,427	29,922
	R-79	27,071	-5,918	28,543
	R-80	6,608	-24,285	22,952
	R-81	-5,026	-42,115	15,281
	R-82	1,040	-38,566	17,838
	R-83	11,908	-10,049	23,345
	R-84	12,328	3,830	14,345
	R-85	16,933	-14,459	48,932
	R-86	48,480	16,912	19,020
	R-87	4,595	-36,826	6,268
	R-88	-887	-42,550	-6,395
	R-89	-1,743	-50,056	28,251
	R-90	71,139	-6,287	5,103
	R-91	-10,395	-42,121	3,839
	R-92	11,159	-16,068	15,067
	R-93	17,868	-14,863	15,714
	R-94	17,459	-15,316	2,288
	R-95	3,561	9,616	1,419
	R-96	-355	-21,133	12,277
	R-97	-30,941	-38,115	33
	R-98	26,210	9,105	21,664
	R-99	63,793	12,040	29,869
	R-100	30,338	-8,024	13,461
	R-101	30,231	361	20,688
	R-102	21,400	-5,664	7,094
	R-103	33,787	25,321	19,069
South Reference Area	R-104	61,608	42,917	18,213
	R-105	49,517	33,362	6,036
	R-106	47,852	61,446	-759
	R-107	53,160	54,021	-773
	R-108	41,274	43,964	1,183
	R-109	34,240	42,882	-137
Total (cy)				
North Reference Area		-94,936	-126,233	23,681
Fill Placement Area		398,753	-413,439	419,466
South Reference Area		287,652	278,591	23,763