



# Maryland

## Department of the Environment

**Wes Moore**, Governor  
**Aruna Miller**, Lt. Governor

**Serena McIlwain**, Secretary  
**Suzanne E. Dorsey**, Deputy Secretary  
**Adam Ortiz**, Deputy Secretary

August 04, 2025

U.S. Fish and Wildlife Service - Chesapeake Marshlands NWR  
c/o Albert McCullough  
Sustainable Science LLC  
410 S Second St  
Denton, MD 21629

Via email: [albert@sustainablesience.com](mailto:albert@sustainablesience.com)

Re: Agency Interest Number: 74937  
Tracking Number: 202262004  
Tidal Authorization Number: 25-WQC-0016

Dear Marcia Long:

Your project did not qualify for approval under the Maryland State Programmatic General Permit (MDSPGP); therefore, a separate review and issuance of the federal permit will be required by the U.S. Army Corps of Engineers. The federal permit is not attached.

Additionally, your project required a Wetlands License to be approved and issued by the Maryland Board of Public Works (BPW). The Wetlands License will be sent to you by BPW's Wetlands Administrator.

A project that does not qualify for approval under the MDSPGP requires an individual Water Quality Certification (WQC) to be issued by the Maryland Department of the Environment, which is attached. Please take a moment to read and review your WQC to ensure that you understand the limits of the authorized work and all of the general and special conditions.

You should not begin any work until you have obtained all necessary State, local, and federal authorizations. Please contact Mary Phipps-Dickerson at [mary.phipps-dickerson@maryland.gov](mailto:mary.phipps-dickerson@maryland.gov) or (443) 509-0797 with any questions.

Sincerely,

Jonathan Stewart  
Division Chief  
Tidal Wetlands Division



STATE OF MARYLAND  
DEPARTMENT OF THE ENVIRONMENT  
WATER AND SCIENCE ADMINISTRATION  
WATER QUALITY CERTIFICATION



25-WQC-0016

EFFECTIVE DATE: **August 4, 2025**  
CERTIFICATION HOLDER: **U.S.Fish and Wildlife Service - Chesapeake Marshlands NWR**  
ADDRESS: **Attn: Marcia Long**  
**2145 Key Wallace Dr**  
**Cambridge, MD 21613**  
PROJECT LOCATION: **1730 Eastern Neck Road**  
**Rock Hall, MD 21661**

**UNDER AUTHORITY OF SECTION 401 OF THE FEDERAL WATER POLLUTION CONTROL ACT AND ITS AMENDMENTS AND IN ACCORDANCE WITH § 9-313 THROUGH § 9-323, INCLUSIVE, OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND, THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER AND SCIENCE ADMINISTRATION HAS DETERMINED THAT THE REGULATED ACTIVITIES DESCRIBED IN THE REQUEST FOR CERTIFICATION FOR THE PROPOSED UNITEDFISH AND WILDLIFE SERVICE-CHESAPEAKE MARSHLANDS-EASTERN NECK MARSH RESTORATION AND AS DESCRIBED IN THE ATTACHED PLAN SHEETS DATED JULY 30, 2025 AND ANY SUBSEQUENT MODIFICATIONS APPROVED BY THE DEPARTMENT WILL NOT VIOLATE MARYLAND'S WATER QUALITY STANDARDS, IF CONDUCTED IN ACCORDANCE WITH THE CONDITIONS OF THIS CERTIFICATION.**

THIS CERTIFICATION DOES NOT RELIEVE THE APPLICANT OF RESPONSIBILITY FOR OBTAINING ANY OTHER APPROVALS, LICENSES, OR PERMITS IN ACCORDANCE WITH FEDERAL, STATE, OR LOCAL REQUIREMENTS AND DOES NOT AUTHORIZE COMMENCEMENT OF THE PROPOSED PROJECT. A COPY OF THIS REQUIRED CERTIFICATION HAS BEEN SENT TO THE CORPS OF ENGINEERS. THE CERTIFICATION HOLDER SHALL COMPLY WITH THE CONDITIONS LISTED BELOW.

## **PROJECT DESCRIPTION**

1. Construct six segmented stone breakwaters including marsh edging totaling 1,851 linear feet and ranging in size from 100 to 417-feet long by 14 to 20 feet wide extending a maximum of 249 feet channelward of the mean high water line;
2. Construct a 16-foot long by 13-foot wide groin all within a maximum of 16 feet channelward of the mean high water line;
3. Fill and grade with 7,758 cubic yards of sand and plant marsh vegetation resulting in 126,044 square feet of low marsh;
4. Emplace oyster reefballs within a 147,800 square foot area all within a maximum of 520 feet channelward of the mean high water line; and
5. Repair 180 feet of marsh edging all within a maximum of 4 feet from the mean high water line.

# **GENERAL CONDITIONS**

1. All water quality-related performance standards and conditions required by the Department in any state issued authorization for activities in tidal wetlands, nontidal wetlands, their 100-year floodplains, nontidal wetlands buffers, or nontidal wetland expanded buffers to ensure that any discharges will not result in a failure to comply with water quality standards in COMAR 26.08.02 or any other water quality requirements of state law or regulation shall be met.
2. This Certification does not obviate the need to obtain required authorizations or approvals from other State, federal or local agencies as required by law.
3. All additional authorizations or approvals, including self-certifying General Permits issued by the Department, shall be obtained and all conditions shall be completed in compliance with such authorizations.
4. The proposed project shall be constructed in accordance with the approved final plan by the Department, or, if Department approval is not required, the plan approved by the U.S. Army Corps of Engineers, and its approved revisions.
5. Activities which result in earth disturbance subject to the requirements in Annotated Code of Maryland, Environment Article, Title 4 and COMAR 26.17.01 shall have an erosion and sediment control plan approved by the appropriate approval authority, including following the stabilization requirements set forth in COMAR 26.17.01.07 and “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”, as may be amended.
6. All fill and construction materials not used in the project shall be removed and disposed of in a manner which will prevent their entry into waters of this State.
7. This Certification does not authorize any injury to private property, any invasion of rights, or any infringement of federal, state, or local laws or regulations.
8. Authorized representatives of the Department shall be provided access to the site of authorized activities during normal business hours to conduct inspections and evaluations of the operations and records necessary to assure compliance with this Certification.
9. No stockpiles of any material shall be placed in Waters of the U.S. or state or private tidal wetlands.
10. Temporary construction trailers or structures, staging areas and stockpiles shall not be located within tidal wetlands, nontidal wetlands, nontidal wetlands buffers, or the 100-year floodplain unless specifically included on the Approved Plan.
11. This Certification is valid for the project identified herein and the associated U.S. Army Corps of Engineers authorization NAB-2022-62004 - Eastern Neck NWR until such time that it expires or is not administratively extended.

## **SPECIAL CONDITIONS**

1. The Certificate Holder shall not perform any construction shown on plan sheets 4 through 10 from November 15th through March 1st of any year to protect wintering waterfowl. The proposed project site is located in a Historic Waterfowl Concentration Area.
2. The Certificate Holder shall not place the oyster reefballs shown on plan sheets 11 through 13 within the timeframe of April 15th through October 15th of any year to minimize impacts to submerged aquatic vegetation.
3. The Certificate Holder shall comply with all Critical Area requirements and obtain all necessary authorizations from local jurisdiction. This Water Quality Certification does not constitute authorization for disturbance in the 100-foot Critical Area Buffer. "Disturbance" in the Buffer means clearing, grading, construction activities, or removal of any size of tree or vegetation. Any anticipated Buffer disturbance requires prior written approval, before commencement of land disturbing activity, from local jurisdiction in the form of a Buffer Management Plan.
4. If the authorized work is not performed by the property owner or is not otherwise exempt from the licensing requirement, all work performed under this Water Quality Certificate shall be conducted by a marine contractor licensed by the Marine Contractors Licensing Board (MCLB) in accordance with Title 17 of the Environment Article of Annotated Code of Maryland and COMAR 26.30. The licensed marine contractor shall be authorized for the appropriate license category to perform or solicit to perform the activities within this authorization, if applicable. A list of licensed marine contractors and their license category may be obtained by contacting the MCLB at 410-537- 3249, by e-mail at MDE.MCLB@maryland.gov, or by accessing the Maryland Department of the Environment, Environmental Boards webpage at <https://mde.maryland.gov/programs/water/WetlandsandWaterways/Pages/LicensedMarineContractors.aspx>.
5. The issuance of this Water Quality Certification is not a validation or authorization by the Department for any of the existing structures depicted on the plan sheets on the subject property that is not part of the authorized work description, nor does it relieve the Certificate Holder of the obligation to resolve any existing noncompliant structures and activities within tidal wetlands.
6. The Certificate Holder shall accept the terms of the attached marsh maintenance plan by signing and returning the standard plan to the Water and Science Administration, Tidal Wetlands Division prior to commencement of any work authorized under this Certificate. If the Certificate Holder wishes to propose an alternative marsh maintenance plan, the alternative plan must be submitted to and approved by the Tidal Wetlands Division, Water and Science Administration, prior to commencement of any work authorized under this Certificate. Any alternative plan must provide assurances of success that are at least equivalent to those of the standard plan, in terms of the extent of native marsh plant coverage, elimination of invasive species and timeframe for plant establishment.



7. The Certificate Holder shall construct the marsh establishment area in accordance with the following conditions:
  - a. The Certificate Holder shall use clean substrate fill material, no more than 10% of which shall pass through a standard number 100 sieve.
  - b. The marsh establishment area shall be planted within one year following completion of the filling operation.
  - c. The marsh establishment project shall be maintained as a wetland, with non-nuisance species' aerial coverage of at least 85% for three consecutive years. If 85% coverage is not attained, the reasons for failure shall be determined, corrective measures shall be taken, and the area shall be replanted.
  - d. If the fill is graded hydraulically, the Certificate Holder shall use a turbidity curtain around the perimeter of the instream work.
  - e. If the existing bank is to be cleared or graded:
    - i. The Certificate Holder shall perform all work under and in accordance with an approved Soil Erosion and Sediment Control Plan from the applicable sediment and erosion control agency; and
    - ii. The Certificate Holder shall perform all work under and in accordance with the Critical Area requirements of the local jurisdiction in the form of an approved Buffer Management Plan.
8. No material other than that listed in the project description shall be used in any reef construction without advance approval of the Maryland Department of the Environment, Tidal Wetlands Division and a modification of the Tidal Wetlands License.
9. The Certificate Holder shall have all work proposed above the mean high water line reviewed and authorized by Kent County Department of Planning & Zoning.

## **STATEMENTS OF NECESSITY**

1. Statement of Necessity for General Conditions 1, 2, 3, 4, and Special Conditions 3, 5, 8: These conditions are necessary to ensure that water quality standards are met, and designated uses are maintained.

Citations: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.10G(3); COMAR 26.23.02.06; COMAR 26.17.01; COMAR 26.23; COMAR 26.24

2. Statement of Necessity for General Conditions 5, 6, 9, 10 and Special Conditions 7: Fill or construction material within or adjacent to regulated resources may cause discharges resulting in turbidity in excess of water quality standards and interfere with designated uses of growth and propagation of fish, other aquatic life, wildlife; and other designated uses; and fail to meet general water quality criteria that waters not be polluted by substances in amounts sufficient to be unsightly or create a nuisance.

Citation: 26.08.02.03B(1)-B(2); COMAR 26.23; COMAR 26.24; COMAR 26.17.04

3. Statement of Necessity for General Condition 7, and Special Condition 9: This condition is necessary to clarify the scope of this certification to ensure compliance with water quality regulations, without limiting restrictions through other requirements.

Citation: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08, COMAR 26.08.02.10E; COMAR 26.23.02.06; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

4. Statement of Necessity for General Condition 8: Conditions of certification involve precise actions to comply with water quality standards. Site inspection may be necessary to ensure that limits, methods, and other requirements are met to ensure that water quality standards are met and designated uses are maintained. These conditions are necessary to ensure that the activity was conducted, and project completed according to terms of the authorization/certification, while allowing for review of in-field modifications which may have resulted in discharges to ensure that water quality standards were met. Designated uses include support of estuarine and marine aquatic life and shellfish harvesting and for growth and propagation of fish, other aquatic life, and wildlife.

Citation: Federal and state laws that authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.03B(1)(b); COMAR 26.08.02.03B(2); COMAR 26.23.02.06; COMAR 26.23; COMAR 26.24; COMAR 26.17.04

5. Statement of Necessity for General Condition 9: Unauthorized discharges may enter regulated waters as result of activity or structural failure. A plan to address inadvertent discharges will prevent or address further violations of water quality standards and failure of water to meet designated uses, including uses of growth and propagation of fish, other aquatic life, wildlife; and other designated uses; and fail to meet general water quality criteria that waters not be polluted by substances in amounts sufficient to be unsightly or create a nuisance.

Citation COMAR 26.08.02.02B(1)d; COMAR 26.08.02.02B(3); COMAR 26.08.02.03B(1) and B(2); 26.08.02.01B(2); 26.08.02.02B(1)

6. Statement of Necessity for General Condition 11: This condition is necessary to qualify the period of applicability of the terms and conditions of this Certification to be protective of Maryland water quality standards.

Citations: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; 40 C.F.R. 121, 15 C.F.R. 930, Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

7. Statement of Necessity for Special Condition 1 and 2: A time of year restriction is necessary to maintain the designated use for support of estuarine and marine aquatic life and shellfish harvesting.

Citation: Federal and state laws which authorize this condition include but are not limited to: COMAR: 26.08.02.02B(1)(d); 26.08.02.02B(3); COMAR 26.08.02.02-16; COMAR 26.24

8. Statement of Necessity for Special Condition 4: Expertise for conducting certain activities is required to ensure that there is no violation of water quality standards nor interference with designated uses. This condition is necessary to ensure that discharges will be conducted in a manner which does not violate water quality criteria nor interfere with designated uses.

Citation: COMAR 26.08.02.02B(2)- B(4); COMAR 26.08 02.03B(2)(d) – (e ); COMAR 26.08.02.03B(1)(b); 26.08.02.03B(2); COMAR 23.02.04.04

9. Statement of Necessity Special Condition 6 & 7: Stabilization of the site with vegetation is required to ensure that waters continue to meet designated uses. Loss of substrate fill material may result in discharges which reduce water quality and interfere with designated uses, including the support of estuarine and marine aquatic life, and the protection of shellfish harvesting, shallow water submerged aquatic vegetation, and migratory fish spawning and nurseries in tidal wetlands. Loss limits will maintain the designated use.

Citation: COMAR 26.08.02.02.B.(3); COMAR 26.08.02.03-3.C.(2)d.(5); COMAR 26.08.02.03.A(1)(b); COMAR 26.08.02.03.B(1-5); COMAR 26.08.02.10E(2)

## CERTIFICATION APPROVED

*Matthew C. Rowe*

[Matthew C. Rowe \(Aug 12, 2025 06:27:54 EDT\)](#)

D. Lee Currey, Director  
Water and Science Administration

Aug 12, 2025

Date

Tracking Number: 202262004  
Agency Interest Number: 74937

Effective Date: August 4, 2025

Enclosure: Plan Sheets dated July 30, 2025

cc: WSA Inspection & Compliance Program  
Army Corps of Engineers

22-WL-1278 & 25-WQC-0016  
202262004  
AI-74937  
7/30/2025  
MPD

CHESTER  
RIVER

HAIL  
CREEK

EASTERN NECK  
ISLAND RD

SHEET  
10

SHEET  
9

SHEET  
8

SHEET  
4

SHEET  
5

SHEET  
6

SHEET  
7

SHEET  
11

SHEET  
12

SHEET  
13

SHEET  
3

## VICINITY MAP









0 800'  
Feet

ENNWR JPA  
PREPARED FOR  
MD DEPT OF ENVIRONMENT  
SHEET 1 OF 15

DATE	7/30/2025
SS PROJECT #	20005
SCALE	AS SHOWN
DESIGNED BY	SAM
DRAWN BY	SAM
CHECKED BY	FAM



## LEGEND

—— LOD ——	LOD ——	LIMIT OF DISTURBANCE
—— MLW ——	MLW ——	MEAN LOW WATER
—— MHW ——	MHW ——	MEAN HIGH WATER
=====		EXISTING ROAD
		EXISTING MARSH
- - - - - 64 - - - - -		EXISTING MINOR CONTOUR
- - - - - 65 - - - - -		EXISTING MAJOR CONTOUR
		PROPOSED MAJOR CONTOUR
		PROPOSED MAJOR CONTOUR
		LOW MARSH AREAS
		PROPOSED BREAKWATER
		PROPOSED SAND AND COBBLE BEACH MIX

22-WL-1278 & 25-WQC-0016

202262004

AI-74937

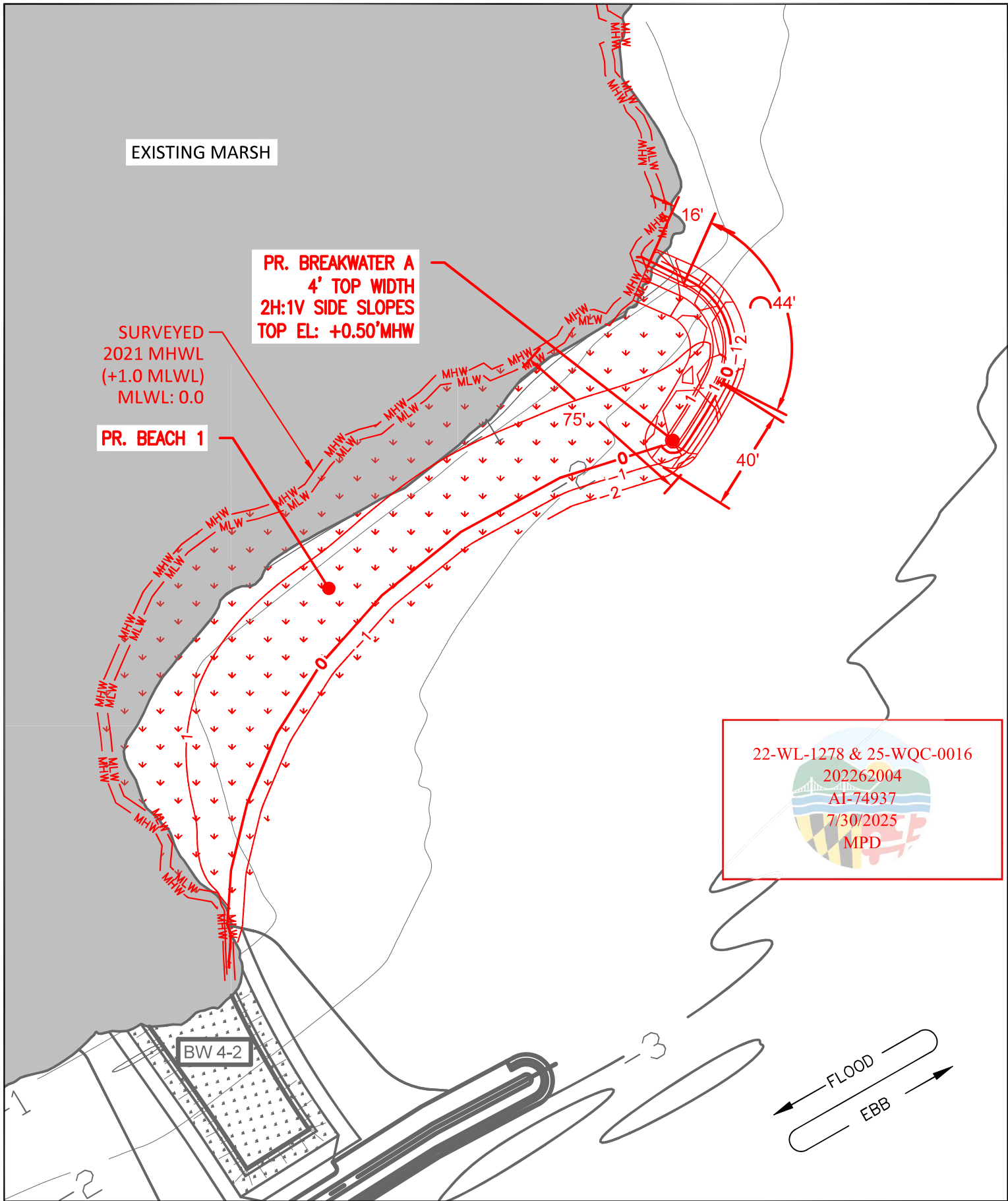
7/30/2025

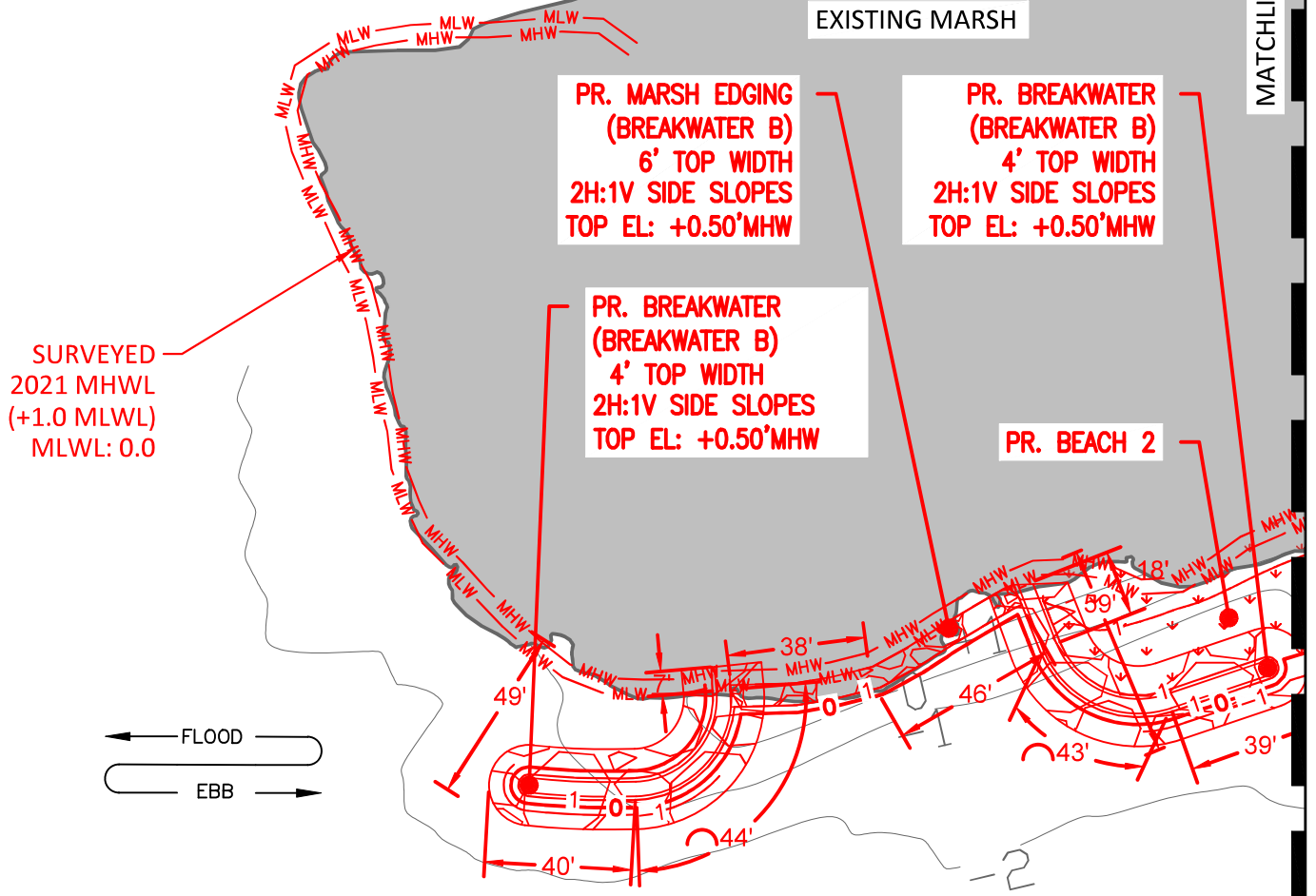
MPD

## NOTES:

1. EXISTING TOPOGRAPHY IS BASED ON A FIELD RUN TOPOGRAPHIC AND BATHYMETRIC SURVEY PERFORMED BY SUSTAINABLE SCIENCE, LLC IN AUGUST AND SEPTEMBER OF 2020.
  - 1.1. SURVEY PERFORMED IN NAD83 MD STATE PLANE HORIZONTAL AND NAVD88 VERTICAL DATUMS
  - 1.2. SURVEY ADJUSTED BY -0.084' TO ASSIGN MEAN LOW WATER TO 0.0' (BASED ON SURVEY OF BIOLOGICAL BENCHMARK).

Datum	Value (ft.)	Description
MHHW	1.27	Mean Higher-High Water
MHW	1.02	Mean High Water
MTL	0.51	Mean Tide Level
MSL	0.53	Mean Sea Level
DTL	0.53	Mean Diurnal Tide Level
MLW	0.00	Mean Low Water
MLLW	-0.21	Mean Lower-Low Water





22-WL-1278 & 25-WQC-0016

202262004

AI-74937

7/30/2025

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## PROPOSED CONDITIONS



0 50' Feet

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SHEET 4 OF 15

DATE	7/30/2025
SS PROJECT #	20005
SCALE	AS SHOWN
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DRAWN BY	SAM
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MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

22-WL-1278 & 25-WQC-0016  
202262004  
AI-74937  
7/30/2025  
MPD

EXISTING MARSH

SURVEYED  
2021 MHWL  
(+1.0 MLWL)  
MLWL: 0.0

PR. BEACH 2

PR. MARSH EDGING  
(BREAKWATER C)  
6' TOP WIDTH  
2H:1V SIDE SLOPES  
TOP EL: +0.50'MHW

PR. BREAKWATER  
(BREAKWATER C)  
4' TOP WIDTH  
2H:1V SIDE SLOPES  
TOP EL: +0.50'MHW

FLOOD  
EBB

PROPOSED CONDITIONS

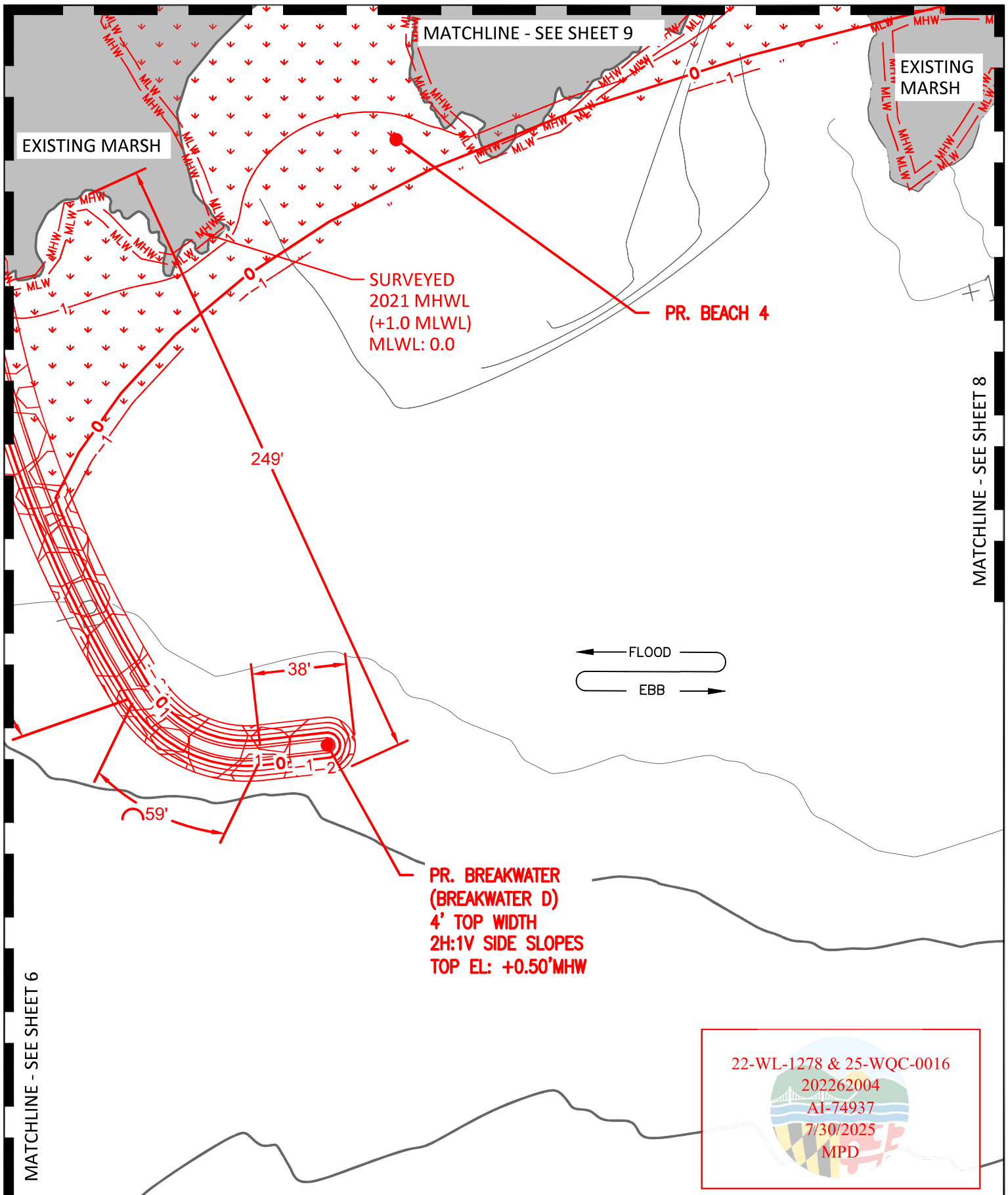


0 50' Feet

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SHEET 5 OF 15

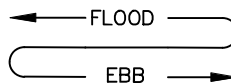
DATE	7/30/2025
SS PROJECT #	20005
SCALE	AS SHOWN
DESIGNED BY	SAM
DRAWN BY	SAM
CHECKED BY	FAM





MATCHLINE - SEE SHEET 9

MATCHLINE - SEE SHEET 7



PR. BREAKWATER  
(BREAKWATER E)  
4' TOP WIDTH  
2H:1V SIDE SLOPES  
TOP EL: +0.50'MHW

PR. BEACH 4

SURVEYED  
2021 MHWL  
(+1.0 MLWL)  
MLWL: 0.0

EXISTING MARSH

22-WL-1278 & 25-WQC-0016  
202262004  
A1-74937  
7/30/2025  
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## PROPOSED CONDITIONS



0 50' Feet

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SHEET 8 OF 15

DATE	7/30/2025
SS PROJECT #	20005
SCALE	AS SHOWN
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MATCHLINE - SEE SHEET 10

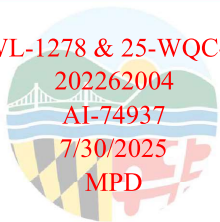
22-WL-1278 & 25-WQC-0016

202262004

AI-74937

7/30/2025

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PR. BREAKWATER  
(BREAKWATER F)  
4' TOP WIDTH  
2H:1V SIDE SLOPES  
TOP EL: +0.50'MHW

SURVEYED  
2021 MHWL  
(+1.0 MLWL)  
MLWL: 0.0

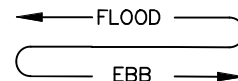
EXISTING MARSH

PR. BEACH 5

PR. BREAKWATER  
(BREAKWATER E)  
4' TOP WIDTH  
2H:1V SIDE SLOPES  
TOP EL: +0.50'MHW

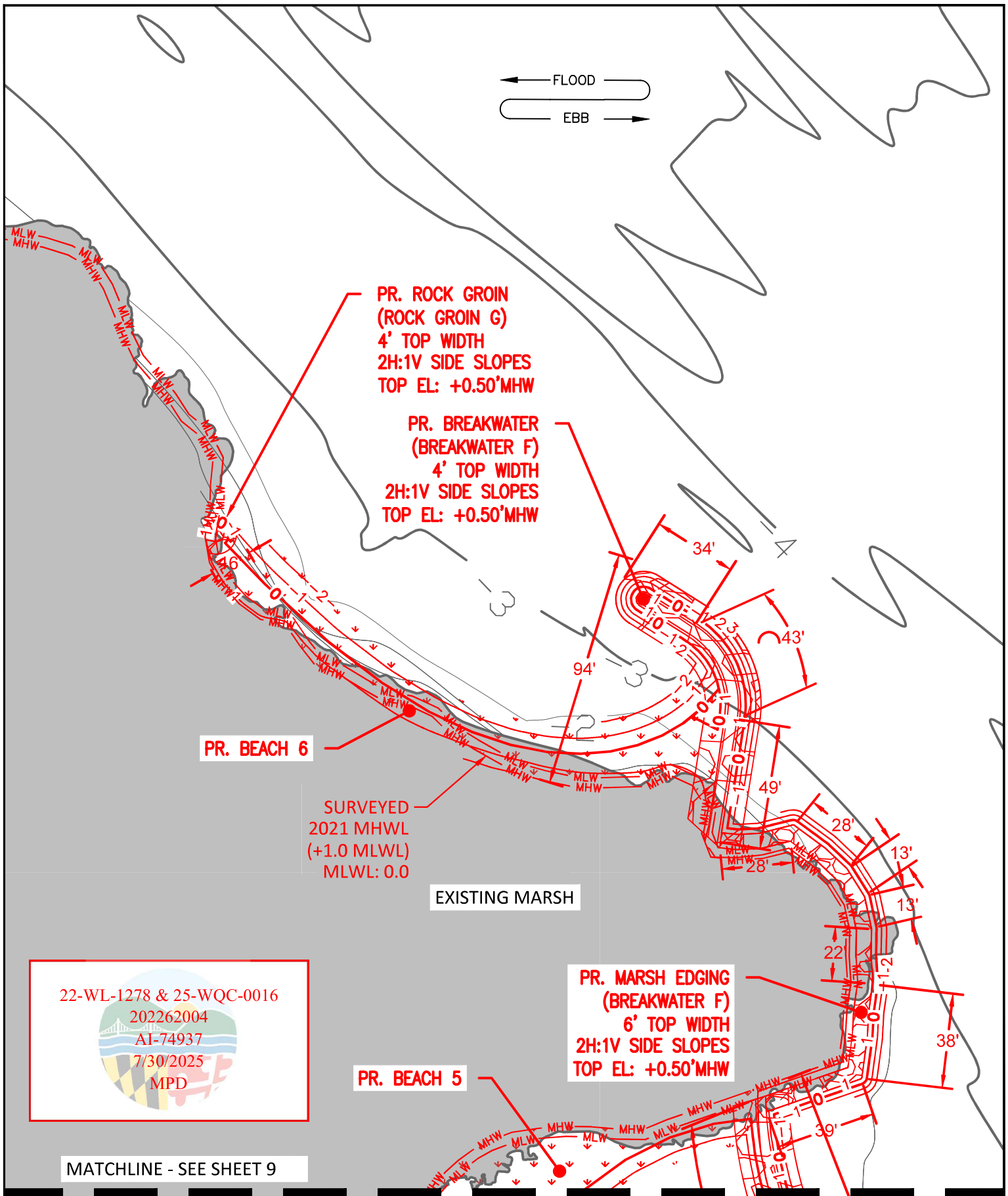
PR. BEACH 4

MATCHLINE - SEE SHEET 7



MATCHLINE - SEE SHEET 8






22-WL-1278 & 25-WQC-0016  
202262004  
AI-74937  
7/30/2025  
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WL-1278 & 25-WQC  
 202262004  
 AI-74937  
 7/30/2025  
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MPD

- APPROXIMATE  
MHWL (+1.0 MLWL)  
MLWL: 0.0

MATCHLINE - SEE SHEET 11

**PR. OYSTER REEFBALLS  
PLACED 6 TO 8 FEET O.C.  
(APPROX. 147,800 SF)**



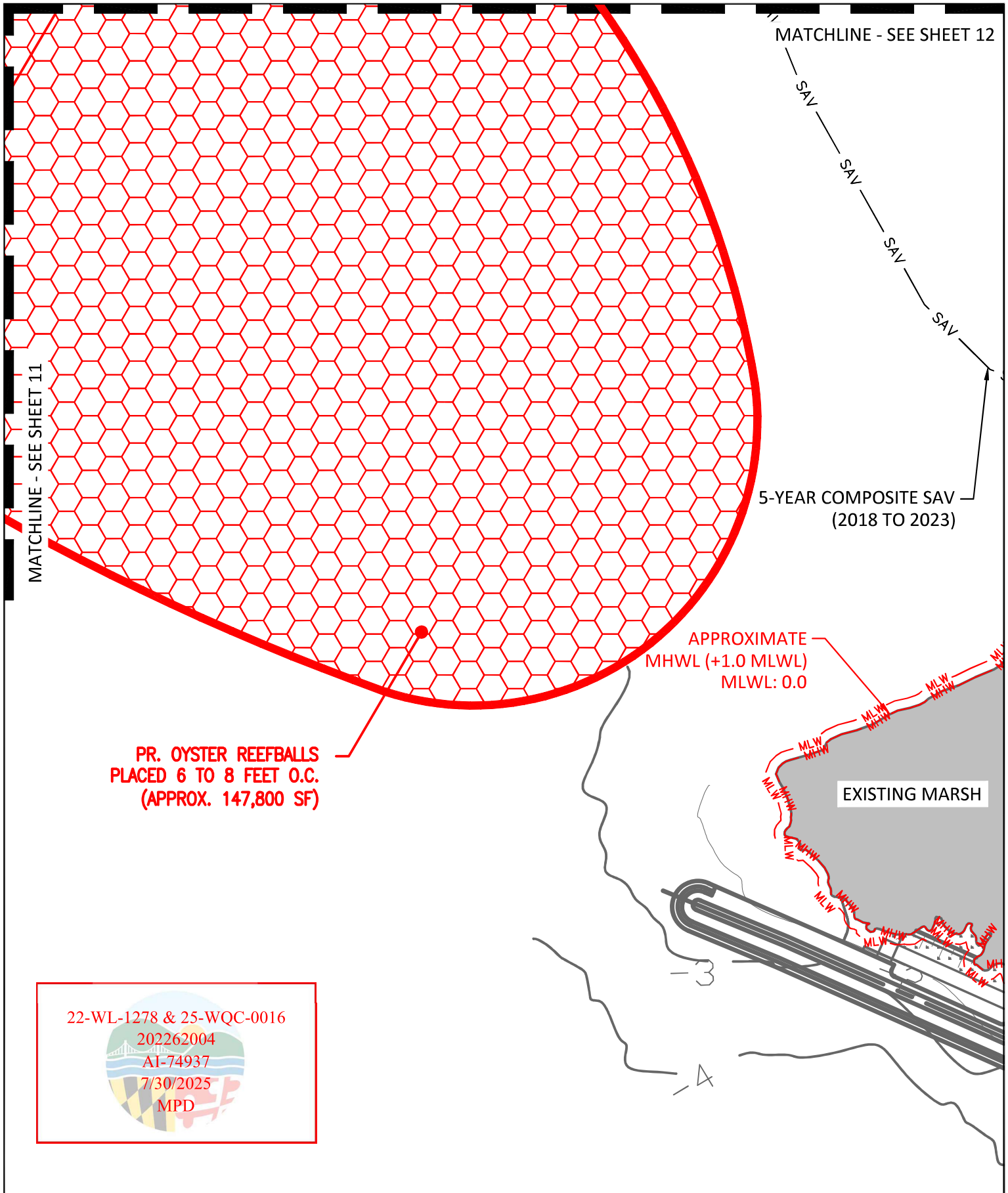
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SCIENCE, LLC**  
ENGINEERING SERVICES  
410 S. SECOND STREET  
DENTON, MARYLAND 21629  
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A horizontal scale bar with a black and white alternating pattern. It is labeled '0' at the left end and '50'' at the right end, with the word 'Feet' written below the right end.

ENNWR JPA  
PREPARED FOR  
MD DEPT OF ENVIRONMENT

SHEET 12 OF 15

CHECKED BY	FAM
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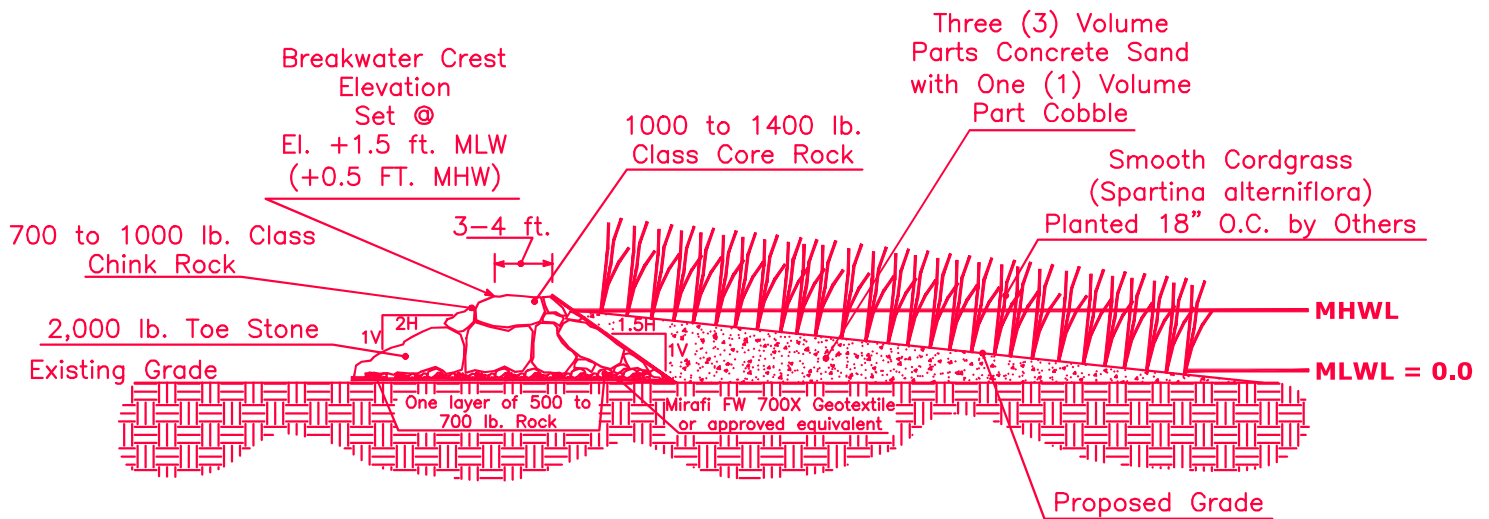
## PROPOSED CONDITIONS



0 50' Feet

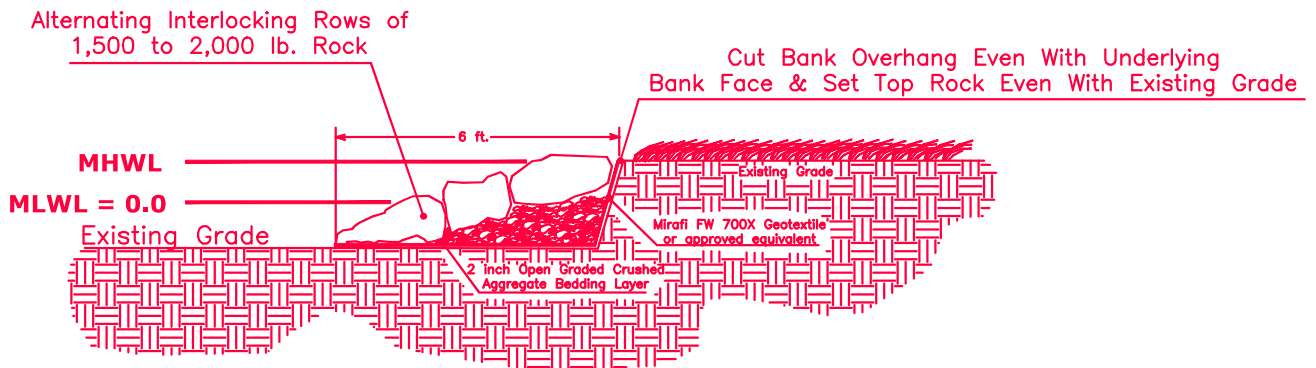
ENNWR JPA  
PREPARED FOR  
MD DEPT OF ENVIRONMENT  
SHEET 13 OF 15

DATE	7/30/2025
SS PROJECT #	20005
SCALE	AS SHOWN
DESIGNED BY	SAM
DRAWN BY	SAM
CHECKED BY	FAM



## HEADLAND BREAKWATER / DUNE HABITAT CONSTRUCTION DETAIL

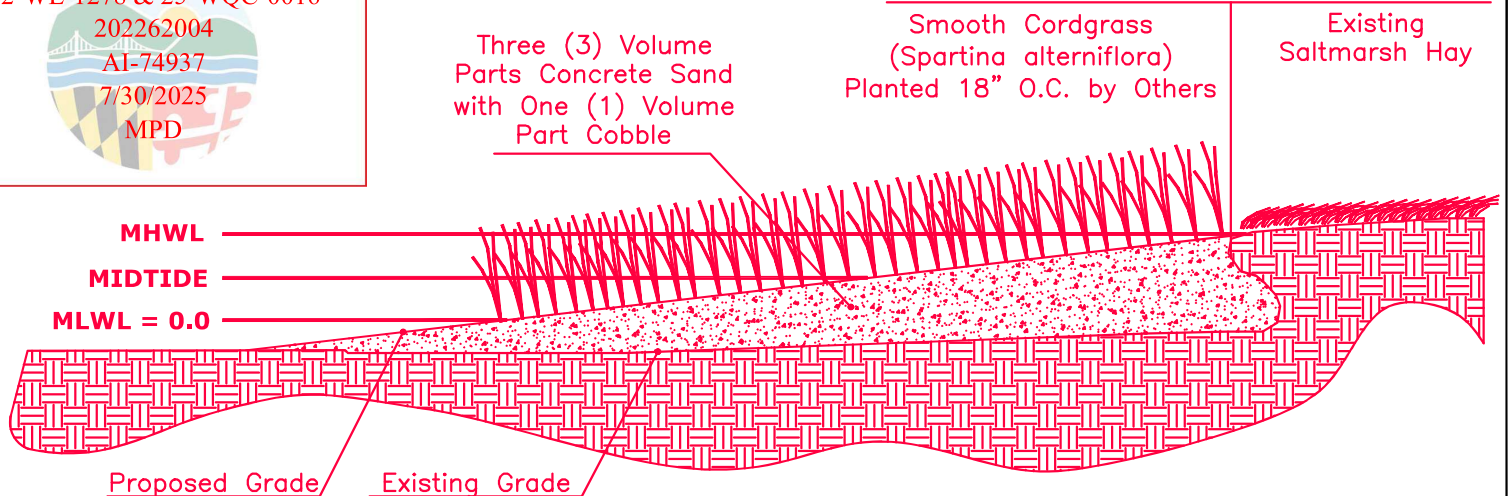
Not to Scale



## MARSH APRON CONSTRUCTION DETAIL

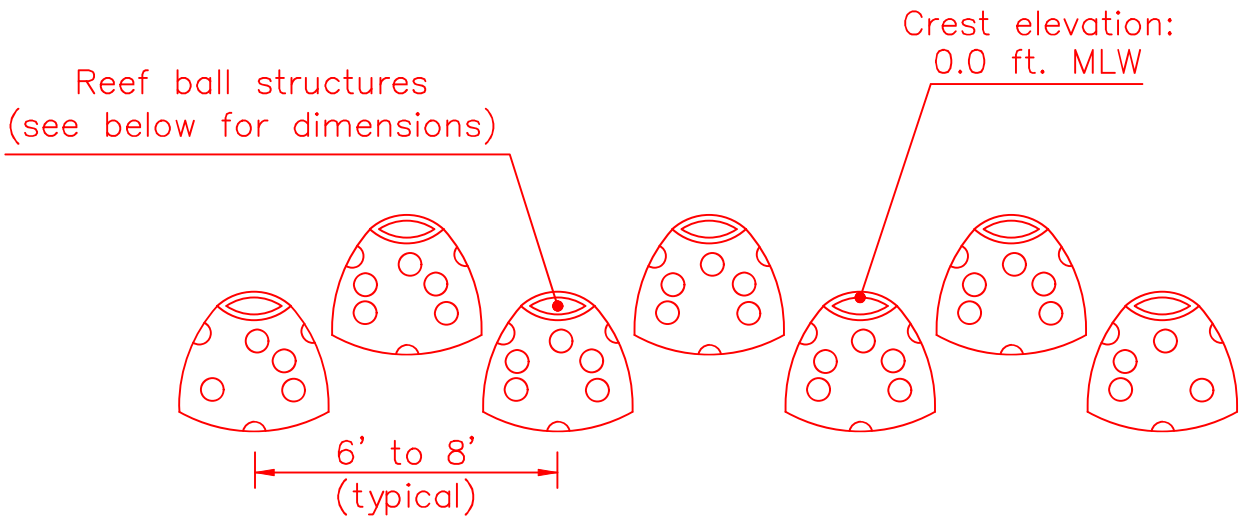
Not to Scale

22-WL-1278 & 25-WQC-0016  
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MPD



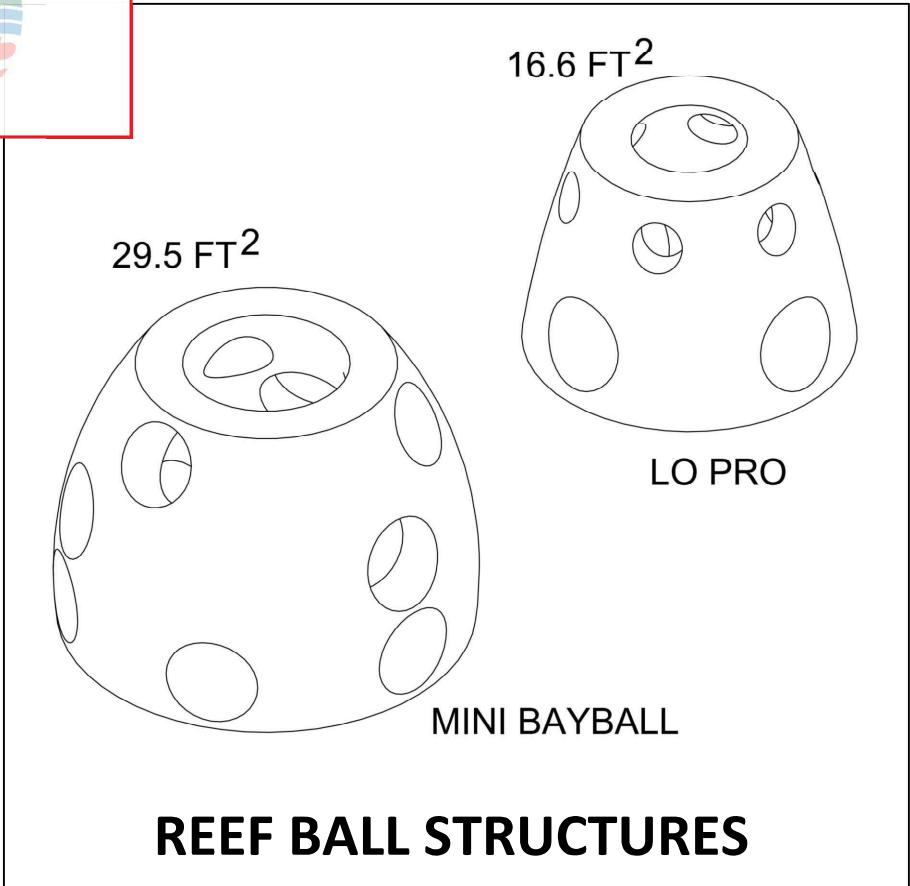
## COVE CONSTRUCTION / MARSH CREATION DETAIL

Not to Scale



**REEF BALL TYPICAL SECTION**  
Not to Scale

22-WL-1278 & 25-WQC-0016  
202262004  
AI-74937  
7/30/2025  
MPD

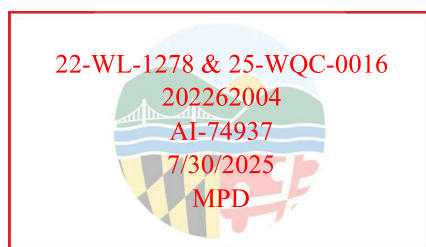


Eastern Neck NWR Impact Summary Table			
Overall Quantities			
Type	Area	Volume	
Stone for Breakwaters	25,553 sf	2,087 cy	
Sand Fill w/ Low Marsh	126,044 sf	7,758 cy	
Oyster Reefballs	147,800 sf	-	
Total	299,397 sf	9,845 cy	
Individual Practice Dimensions			
Practice Name	Length	Max Width	Max Channelward Distance
Beach 1	387 ft	83 ft	83 ft
Beach 2	388 ft	61 ft	61 ft
Beach 3	437 ft	88 ft	268 ft
Beach 4	562 ft	120 ft	120 ft
Beach 5	539 ft	94 ft	94 ft
Beach 6	233 ft	45 ft	45 ft
Breakwater A	100 ft	18 ft	75 ft
Breakwater B	275 ft	16 ft	59 ft
Breakwater C	355 ft	20 ft	114 ft
Breakwater D	302 ft	14 ft	249 ft
Breakwater E	402 ft	15 ft	108 ft
Breakwater F	417 ft	18 ft	109 ft
Rock Groin G	16 ft	13 ft	16 ft
Oyster Reefballs	574 ft	331 ft	520 ft

Marsh Edging Repair                      180 ft                      4 ft                      0 ft

Marsh Edging Repair Area: 720 sq ft    Marsh Edging Repair Volume:33 cu yds

NOTE: The noted Marsh Edging Repair impacts are in addition to the table quantities.









# 25-WQC-0016 - signed (1)

Final Audit Report

2025-08-12

Created:	2025-08-07
By:	Jonathan Stewart (jon.stewart@maryland.gov)
Status:	Signed
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-  Document created by Jonathan Stewart (jon.stewart@maryland.gov)  
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