

Memorandum

To: Mariners' Advisory Committee Members and Interested Parties

From: Captain Drew Hodgens

Re: Meeting Agenda - September 14, 2023

Your presence is requested at the Quarterly Meeting of the above-mentioned committee on Thursday, September 14, 2023 at 1100 hours.

Agenda

I Approval of Minutes – from the June 2023 meeting

Introduction of all in attendance

II.	Reports

A. Treasurer's Report - Capt. John Gazzola

B. **Membership Report** - Capt. John Gazzola

C. **USCG Report** - Captain Kate Higgins-Bloom, USCG

D. **USACE Report** - Mr. Tim Rooney, Phila to Sea Project Manager, USACE

E. **NOAA Reports** - Mr. Chris DiVeglio, NOAA Ports Program

- Mr. Ryan Wartick, Navigation Manager, Mid-Atlantic Office,

NOAA

F. NJ Wind Port - Mr. Fernando Gonzalez Chana, Moffatt Nichol

G. **Orsted** - Mr. Norm Witt, Mid-Atlantic Marine Affairs Manager

- III. Unfinished Business
- IV. New Business
- V. Open Discussion
- VI. Adjournment



1. Seasonal Alerts

a. Hurricane Seasonal Alert was announced on June 1, 2023. The MSIB is posted on homeport as well as the Port Hurricane Contingency Plan which contains checklists for facilities and vessels to prepare for hurricane season.

2. Marine Safety Information Bulletins

- a. MSIB 07-23 Hurricane Seasonal Alert to expire 1 December, 2023.
- b. MSIB 01-23 from CG-INV on Reporting Sexual Misconduct on U.S. vessels was posted on homeport. In short, recent changes to the law now require the owner, master, or managing operator of a U.S. flagged vessel to report any complaint or incident of harassment, sexual harassment, or sexual assault to the Coast Guard that violates company policy. To help facilitate reporting, the Coast Guard has consolidated reporting for all types of sexual misconduct and established multiple reporting options as detailed in the MSIB attachment. The reporting options include a CGIS Tips App, and/or the email address CGISTIPS@uscg.mil which can be used by all reporting sources. CGIS will launch an investigation into all reports.

3. Inspections Activities

- a. The National Maritime Center (NMC) is experiencing delays in issuing merchant mariner credentials (MMCs) due to increased application volume and technical difficulties. To alleviate the burden on mariners, interim solutions are provided to verify the validity of their MMCs and endorsements. Mariners on domestic voyages can use the MMLD Credential Verification tool, while the MMLD Application Status tool can be used to check the status of recent applications. The Coast Guard will accept printed verification outcomes as proof of a valid MMC until the printed credential is received.
- b. On December 31, 2023, Policy Letter 21-01 and CVC-WI-014(1) will be canceled, requiring all new ship engines that are required to comply with MARPOL Annex VI Reg 13 Tier III requirements. However, engines installed under the previous policies will remain covered and can be used for the entire operating life of the engine. Vessel owners/operators must maintain relevant records to determine the status of the engine.

4. Cyber Security Highlights

a. The MTS remains an enticing target for cybercriminals or state and non-state malicious cyber actors. As diplomatic and economic pressure on Russia to discontinue its invasion of Ukraine mounts, the risk of cyberattacks on U.S. critical infrastructure is assessed to be elevated. Please visit CISA's new page for its "Shields Up" campaign to keep up to date on the latest technical and non-technical alerts and notifications: www.cisa.gov/shields-up.

- b. In case of an actual cybersecurity incident or even just anomalous activity, MTS stakeholders should immediately make three notifications to federal authorities. Contact information for CISA Central and FBI Cyber Watch are available on the Shields Up page. The National Response Center (NRC), which can be reached at 1-800-424-8802, will provide notification to the USCG Sector. These notifications will trigger resources and interagency coordination to help you mitigate damage to your systems, and ultimately the MTS.
- c. All MTS vessels and facilities experiencing a cyber-attack or suspicious cyber-activity should also report the activity to their local FBI Field Office or file a complaint through the FBI's Internet Crime Complaint Center at www.IC3.gov, as well as the MTS Information Sharing and Analysis Center (MTS-ISAC) via email at soc@mtsisac.org. The MTS Information Sharing and Analysis Center (MTS-ISAC) is a resource for timely reporting of cyber threats toward the MTS. It is highly recommended you subscribe to their alerts and bulletins.

5. Offshore Wind Energy Lease Areas

- a. Sector Delaware Bay has been participating in meetings with offshore wind developers and District Five Waterways staff regarding five wind energy lease areas off the coasts of NJ, DE, and MD and an additional four lease areas in the New York Bight that impact the Delaware Bay and NJ coast.
- b. If any MAC members have questions or concerns as these projects move forward, you can reach out to LT Owen Mims (Waterways Management Division), CDR Jodi Min (Prevention Department Head), or Mr. Robert Webb (Marine Planning Specialist) at District Five Waterways.

Sector Delaware Bay Aids to Navigation (ATON) Updates

1. CGC WILLIAM TATE

- a. New Commanding Officer, LT Cory Sonnega.
- b. Seasonal buoys from 1DR up to 66 have proposed to be year around ice hulls. The Fifth District is looking at most effective and efficient lighting means. Approval pending.
- c. Delaware River Light 2 is extinguished. Working on a solution to temporarily mark it with a buoy because the structure has been deemed unsafe to climb.
- d. Delaware River Lighted Buoy 35 was struck and damaged by a boater.

2. Aids To Navigation Team (ANT) Philadelphia

- a. Marcus Hook Rear Range light unit received funding to purchase new batteries. Waiting on batteries to be delivered. Lead time to complete the project is 1-3 months.
- b. ANT Philadelphia had their Change of Command ceremony on June 2, 2023. The new Officer in Charge is BMC Derek Casper.
- **3.** Aids to Navigation Team (ANT) Cape May
 - a. Conducted dive operations for two weeks in the NJ ICW to cut down 6 damaged aids.
 - b. CGC SLEDGE was able to rebuild or repair 18 aids to navigation in Cape May Harbor and portions of the ICW.

c. Brandywine Shoal Light- a new catwalk has been built by the owner, however, the catwalk still needs to be secured to piles. Once complete, ANT Cape May will service the light.

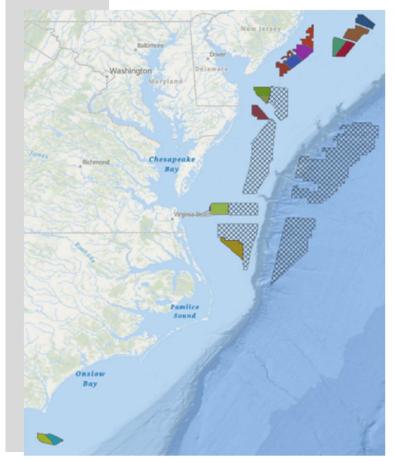
District Five Aids to Navigation Updates

- 1. Rebuild Fisher Point Range Front and Rear Lights
 - a. Design is complete and we are waiting on permits, both front and rear ranges will be rebuilt in the river. Bottom core samples were taken in September 2021.
- 2. Rebuild Liston/Reedy Range Lights
 - a. This project entails the relocation/rebuild of front and rear structures for both ranges. The new range front light will be constructed at the intersection of both ranges and will serve as a combined range front structure. Separate rear structures will be constructed. Consolations with SHPO are complete, ACOE Permits received waiting on State of Delaware permits.
- 3. Rebuild New Castle Front/Rear Range Lights
 - a. This project will entail the relocation of the front and rear structures for the range. The existing range front and rear towers located on land will be demolished. The new range front light will be constructed near the edge of the channel. The new rear light will be constructed near the shoreline in front of the existing front tower in approx. 22 feet of water. Both new structures will have mono-pile type foundations driven into the river bottom. All optics will be changed to solar power. Consolations with SHPO are complete and the design is 100%. Waiting on permits.
- **4.** Mud Island Upper and Beverly Lower Ranges
 - a. Range lights are scheduled to be converted to LEDs this year. An Advance Notice will run in the LNM before the conversions are completed. This upgrade from incandescence lamps to LED optics, at the scheduled recharge date, is in alignment with the Commandant's Strategic Plan to increase the use of LEDs on AtoN systems reducing the amount of power required, thereby lowering the number a batteries required which in turn will reduce the life cycle cost, reduce hazardous waste and reduce ANT work load. Feedback after the conversion is appreciated.
- **5.** Brown Shoal Light (LLNR 1535) Approved for funding and rebuild in FY24.

Fifth Coast Guard District Marine Planning Meeting Notes

HIGHLIGHTS

Mid-Atlantic Projects



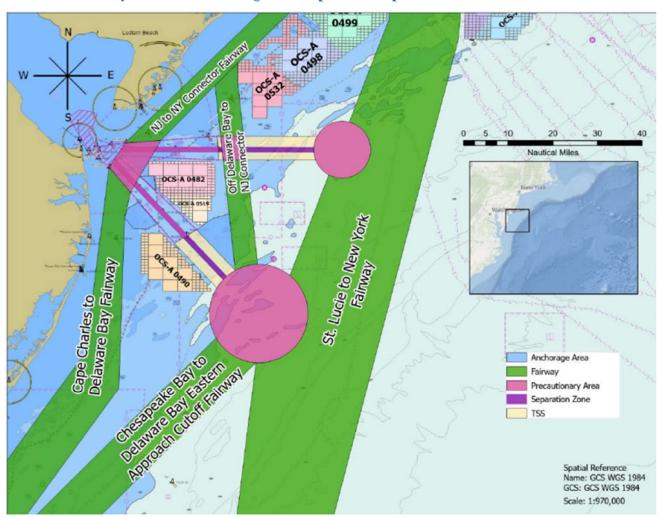
Overview

- 1 offshore wind project completed
 - Coastal Virginia Offshore (CVOW) Pilot/Research
- 16 active offshore wind leases (18 projects) under review
 - SEC Delaware Bay AOR 10
 - SEC Maryland-NCR AOR 1
 - SEC Virginia AOR 2
 - SEC North Carolina AOR 3
 - 8 additional Draft Wind Energy Areas in Central Atlantic
- 1 right of way grant for ocean transmission system under consideration

State Commitments vs. Existing Leases

- 29.2 GW of offshore power demanded
 - Maryland 8.5 GW by 2031
 - Virginia 5.2 GW by 2034
 - New Jersey 7.5 GW by 2035
 - North Carolina 8.0 GW by 2040
- 8.6 GW planned/announced by developers to date

• The NPRM which announced the updated Consolidated Port Approaches Study was released to the public in March 2023. In general, the new proposed routing measures provide wider traffic lanes for shipping, expands the Bay's Precautionary Area, and provides an intermediate shipping lane between the nearshore route and the offshore route (St. Lucie to New York Fairway). It also includes a proposal for a new fairway anchorage on the southern approach to the Delaware Bay to assist with ship congestion in the offshore anchorages and preserve space for safe anchoring from offshore wind development. Comment period closed on June 8, 2023.



Consolidated Port Approaches Port Access Route Studies (CPAPARS)

Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay, Delaware

Fifth District Point of Contact

Mr. Matthew Creelman

Marine Information Specialist

U.S. Coast Guard Fifth District

Branch Email: CGD5Waterways@uscg.mil

Office: 757 398-6230

USACE PHILADELPHIA DISTRICT

MAC MEETING

MAC Meeting Presentation
Timothy J. Rooney, Project Manager
14SEPTEMBER2023

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."





Delaware River, Philadelphia to Sea

- Norfolk Dredging Company (NDC) completed Deepwater Point Range and currently mobilizing to Wilmington Harbor. Scheduled start date is 21September.
- The Hopper Dredge McFarland is currently at the dock at Ft. Mifflin and will begin dredging Mifflin Range once generator repairs are completed by the end of this week.
- NDC was the apparent low bidder for next year's maintenance dredging contract. Contract should be awarded by the end of September. The anticipated dredging start for NDC's next contract should be Marcus Hook Range Winter 2024.





Delaware River, Philadelphia to Trenton

 The FY 23 bucket dredging between the Tacony-Palmyra Bridge and Newbold Island as well as the Fairless Turning Basin, is scheduled to begin by end of the week by Seaward Marine of Norfolk, VA and be complete by 15 March 2024.

Wilmington Harbor

Maintenance Dredging of the Port is scheduled to begin on 21
 September and complete by 21 October.





C & D Canal

- Construction continues on St. Georges Bridge's deck replacement. This work is not expected to reduce the air gap beneath the bridge. A barge will be attached to the water piers and may encroach into the federal channel by approximately 30' during work hours. Outside of work hours the barge will be moved out of the channel. The barge can be moved out of the navigation channel with 2 hours notice.
- Maintenance dredging in the Upper Chesapeake is scheduled to be awarded in September 2023. Anticipated dredge areas are going to be in the upper Chesapeake Bay with disposal of material at Pearce Creek placement site.





Salem River

- Dredging contract was advertised in June 2023 as a Request for Proposal.
 The Government is still in the proposal evaluation phase. The project is currently anticipated to be awarded early next fiscal year
- Contract work will clear fine-grained sediment and beneficially place the dredged material in USFWS's Supawna Meadows to restore marsh
 - Dredging will occur in the lower part of the river between Stations 3+000 and 15+500 to the authorized depth of 16 ft MLLW with 1 ft of allowable overdepth.
 - Estimated quantity is 190,000 cy total.
 - Environmental windows allow dredging between 1 July and 1 March of any year

 The Government Dredge Murden will be used to also clear sand shoals from the channel bend in Dec 2023 with beneficial use placement in the nearshore

of Oakwood Beach







NJ Intracoastal Waterway, Cape May Ferry Channel

 A new contract was advertised in August 2023 for maintenance dredging in Mar/April 2024. Bid opening is scheduled for 18 Sept 2023.

Maurice River, NJ

 A contract for maintenance dredging of the Maurice River federal channel was awarded on 1 Sept 2023 to Barnegat Bay Dredging Co of Harvey Cedars, NJ. Once Notice to Proceed is issued, work will commence between Sept 2023 and February 2024. Dredged material will be beneficially placed for marsh restoration within the adjacent Heislerville Wildlife Management Area managed by NJDEP.





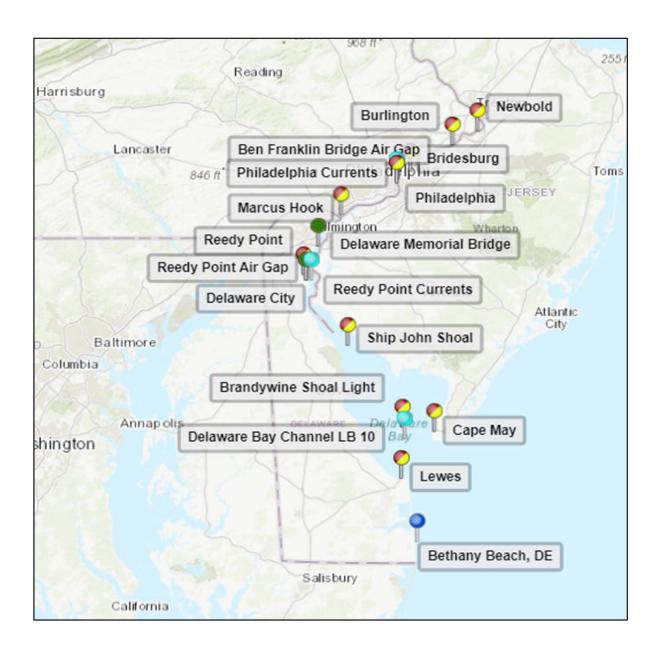


NOAA Physical Oceanographic Real Time System (PORTS®) Updates

Chris DiVeglio and Jay Dawsey NOAA PORTS Program September 14th, 2023



https://tidesandcurrents.noaa.gov/ports/index.html?port=db





Quarterly Sensor Statistics

Air gap and current meter station <u>Instrument performance stats</u>

Criteria - Percentages report of data which

- 1- Passed preliminary Quality Control (public dissemination = ON)
- 2- Data were 18 minutes old or less when populated into the database

06/01/2023-08/31/2023

Delaware Memorial Bridge Air Gap – 100.0%

Ben Franklin Air Gap – 99.2%

Reedy Point Air Gap – 100 %

Chesapeake City Gap – 99.8%

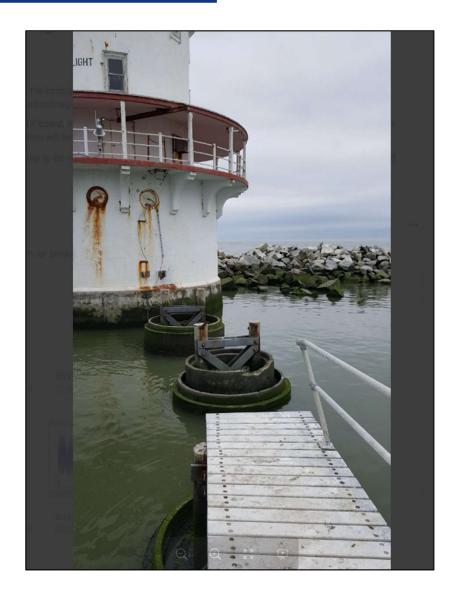
db0301 (Philadelphia) currents – 100.0%

db0502 (Brown Shoal LB10) currents – 72%



Brandywine Shoal access/ upgrades

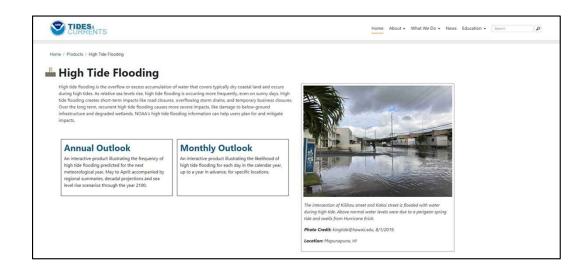
- Update from Cape May Whale Watchers (owner?) that there is still no safe access
- In the process of rebuilding the dock this summer
- Repair wind and air temp
- Install a second (backup)
 water level sensor

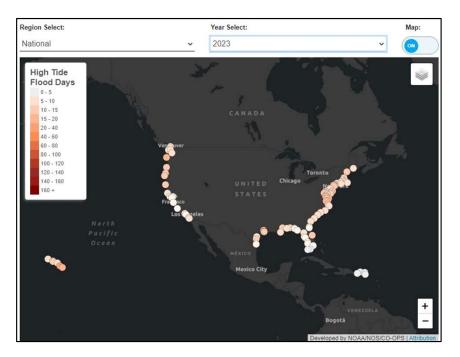




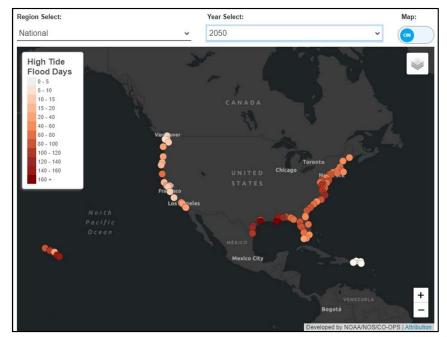
High Tide Flooding Products

- Integrated High Tide Flooding Products
- Interactive dashboards & visualizations
- Links to additional internal & external resources
- Flooding predictions across timescales











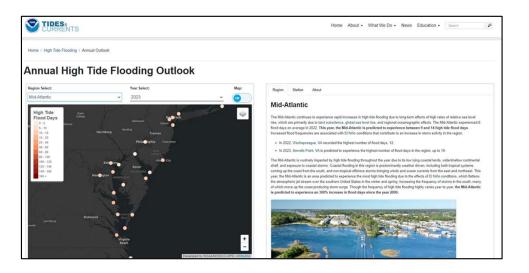
High Tide Flooding Products

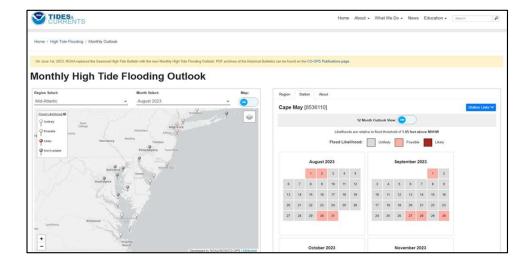
Annual High Tide Flooding Outlook

- Number of high tide flood days for the coming year at specific stations
- Projections out to 2050
- Regional impact summaries
- Supports long-term planning

Monthly High Tide Flooding Outlook

- Daily flooding likelihoods for specific stations, up to a year in advance
- Regional impact summaries
- Supports near-term planning







Mid-Atlantic Outlook

New York (from the Battery, NY), New Jersey, Delaware, Maryland, Washington D.C., and Virginia

OVERVIEW

The Mid-Atlantic continues to experience rapid increases in high tide flooding due to the long-term effects of high rates of relative <u>sea level rise</u>, primarily due to <u>land subsidence</u>, <u>global sea level rise</u>, and regional oceanographic effects.

2022 SUMMARY

Last year, the Mid-Atlantic experienced 8 flood days on average. The NOAA station with the highest number of flood days was <u>Wachapreague</u>, <u>VA</u>, with 12 days recorded.

2023 OUTLOOK

This year, the Mid-Atlantic is predicted to experience between 9 and 14 high tide flood days, a 300% increase in flood days since the year 2000. The region is predicted to experience some of the most frequent high tide flooding in the Nation, due to the effects of El Niño conditions, which contribute to increased storm activity in the region. NOAA's station in Sewells Point, VA, is expected to experience the highest number of high tide flood days in this region, with 19 days predicted.



Cars drive through flooding caused by a simultaneous above normal high tide and new moon that coincided with heavy rain and onshore winds. Location: Long Neck Road between Rehoboth Bay & Indian River Bay, Millsboro, DE.

Photo credit: Driscoll Drones, 2/25/2020.

What contributes to coastal flooding in the region?

The Mid-Atlantic is routinely impacted by flooding throughout the year due to its low-lying coastal lands, wide and shallow continental shelf, and exposure to coastal storms. Coastal flooding in this region is predominantly weather driven, including both tropical systems coming up the coast from the south, and non-tropical offshore storms bringing winds and ocean currents from the east and northeast.

When will the highest number of stations in the region be at risk of high tide flooding?

In the Mid-Atlantic, the highest number of stations are likely to experience high tide flooding during **September** and October 2023. The region will have a risk of high tide flooding during these months because perigean spring tides will occur during the full moons. Mean sea levels are also generally higher in the early fall months due to warmer, expanding ocean water and changes in weather patterns, further increasing the likelihood of high tide flooding.

Visit the <u>Monthly High Tide Flooding Outlook</u> to see what days specific locations in the region are more likely to experience high tide flooding. As potential flooding days grow closer, visit the <u>Coastal Inundation Dashboard</u> to monitor water levels in real-time.

What kind of impacts might I expect?

Low-lying areas may flood, but more severe flooding and coastal erosion may occur if high tide flooding coincides with a storm. Some locations along the Mid-Atlantic coast will have their highest tides of the year and lower than normal tides will also occur. High tide flooding may lead to temporary business closures, overflowing storm drains, and longer commute times.

HIGH TIDE FLOODING IN THE FUTURE

Over the coming decades, the frequency of high tide flooding is expected to accelerate due to sea level rise. For example, the projected likely decadal range of high tide flood days for <u>Annapolis, MD</u> is 75 – 115 days per year on average. Visit the <u>Annual High Tide Flooding Outlook</u> to view decadal high tide flooding projections out to 2050 under different sea level rise scenarios for other locations in your region.

View the <u>2022 multi-agency Sea Level Rise Technical Report</u> to learn more about the different sea level rise scenarios and the <u>companion application guide</u> to understand how to use the information to best support your local sea level rise planning and adaptation decisions.





Questions? PORTS_program@noaa.gov christopher.diveglio@noaa.gov

240-620-6919





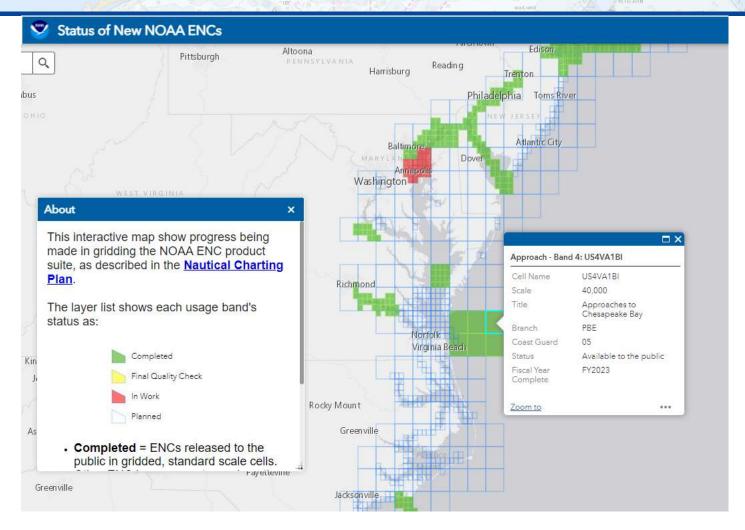


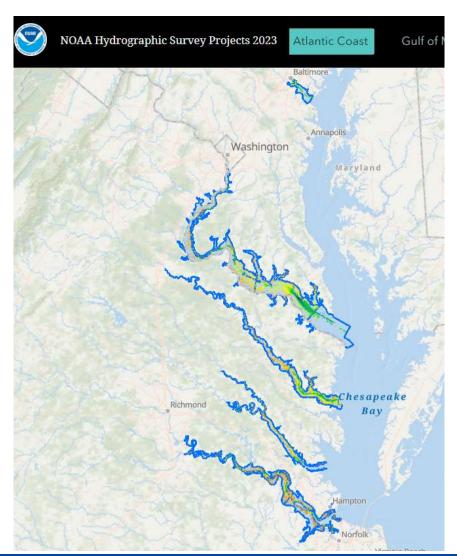
NOAA OCS update

September, 2023

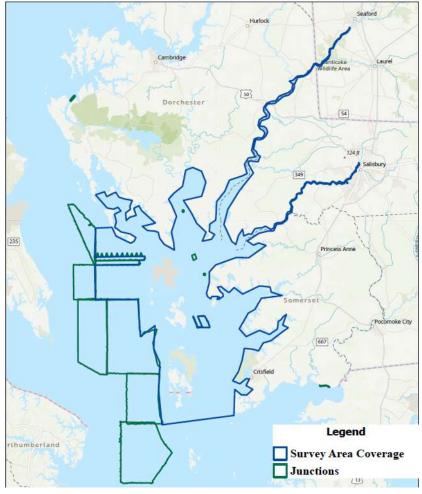
Ryan Wartick – Office of Coast Survey
Ryan.Wartick@noaa.gov
757-268-8164

ENC Gridding progress: Supporting CVOW

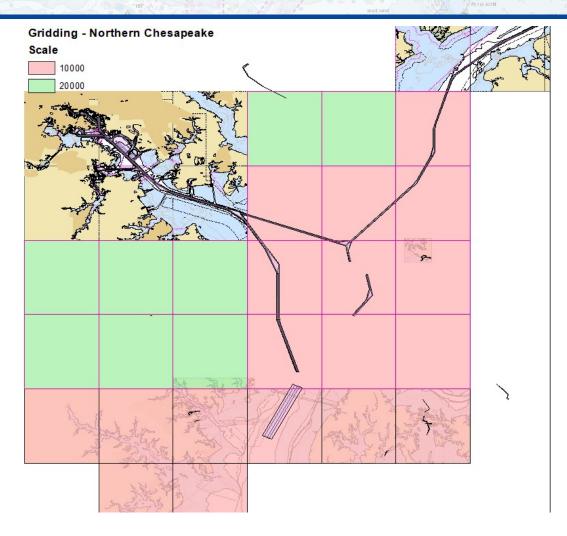








New 1:10K charts in place of 1:40K ~October



NOAA Custom Chart Viewer



NOAA launches new chart display service

New service is based on electronic navigational chart data

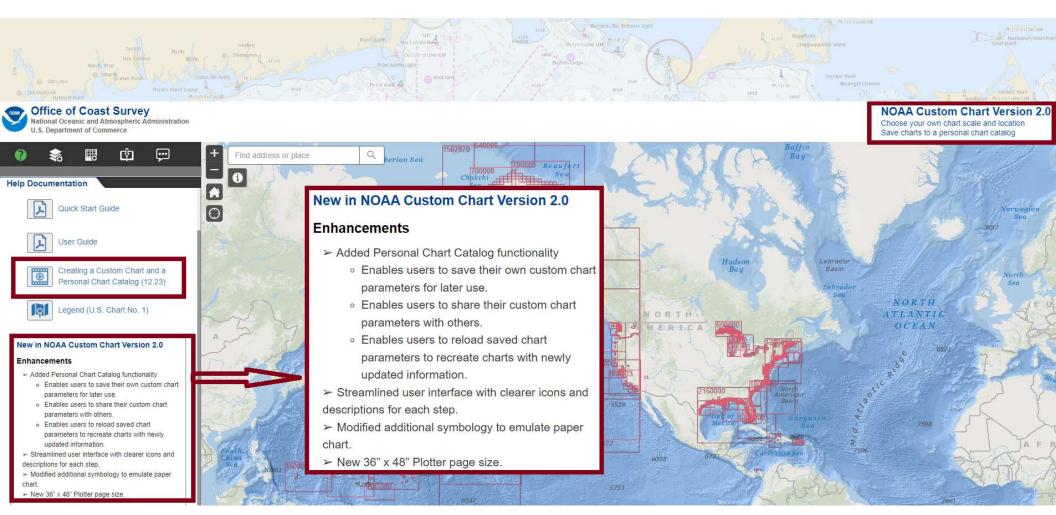
The new NOAA Chart Display Service (NCDS) renders NOAA electronic navigational chart (NOAA ENC®) data with "traditional paper chart" symbology in online and offline applications for which a basemap of nautical chart data is desired, including GIS, web-based, and mobile mapping applications. The new service uses symbols, labels, and color schemes familiar to those who have used NOAA paper nautical charts or the NOAA Custom Chart application. NCDS is available as Esri REST Map Service, OGC Web Map Service (WMS), and MBTiles formats.

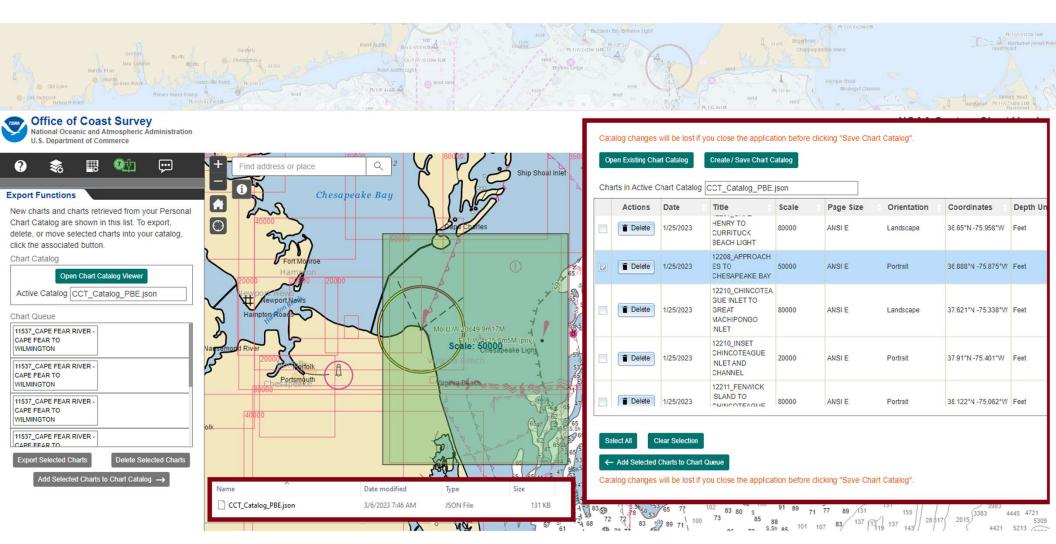
NOAA is developing its own online NCDS viewer that will enable users to easily pan and zoom through U.S. ENC data rendered by the NCDS. This <u>preview of the viewer</u> – available on the Coast Survey website soon – will give you an idea of what the NCDS rendered data looks like.

The NCDS replaces the Raster Navigational Chart (RNC) Tile Service and the Seamless RNC Service. These services are being shut down on March 15 as part of NOAA's continuing transition away from traditional paper and raster nautical charts in order to focus on improving_and_modernizing_ENC_coverage. Production of all traditional paper and raster charts will end by January 2025, as described on Coast Survey's Farewell to Traditional Nautical Charts web page.

Links for all of these ENC-based display services are on Coast Survey's <u>ENC Display Services</u> web page. Note that the links do not open viewers that can display the ENC data directly. The links provide access to the rendered ENC data that software and web map developers can use in their applications to display the data.

Coast Survey is interested in knowing how developers are implementing the new NOAA Chart Display Service in online and offline applications, and what users think about the way the ENC data is being portrayed. You can submit questions or comments, and report problems, through Coast Survey's <u>ASSIST</u> stakeholder engagement and feedback tool. NOAA is developing its own online NCDS viewer that will enable users to easily pan and zoom through U.S. ENC data rendered by the NCDS. This <u>preview of the viewer</u> – available on the Coast Survey website soon – will give you an idea of what the NCDS rendered data looks like.

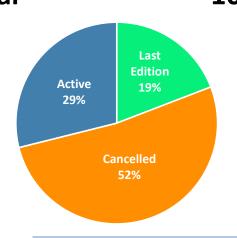


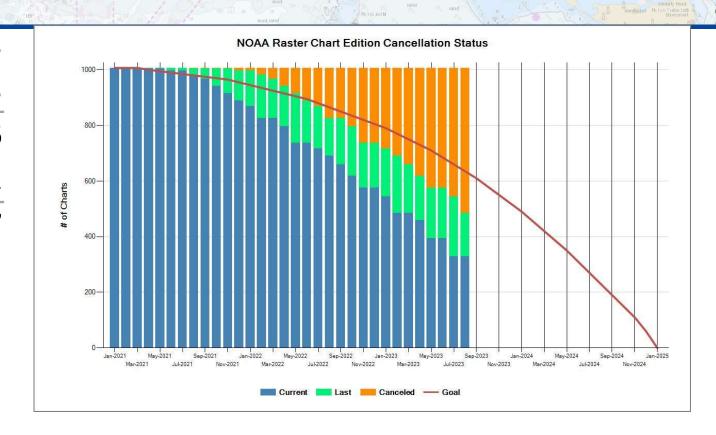




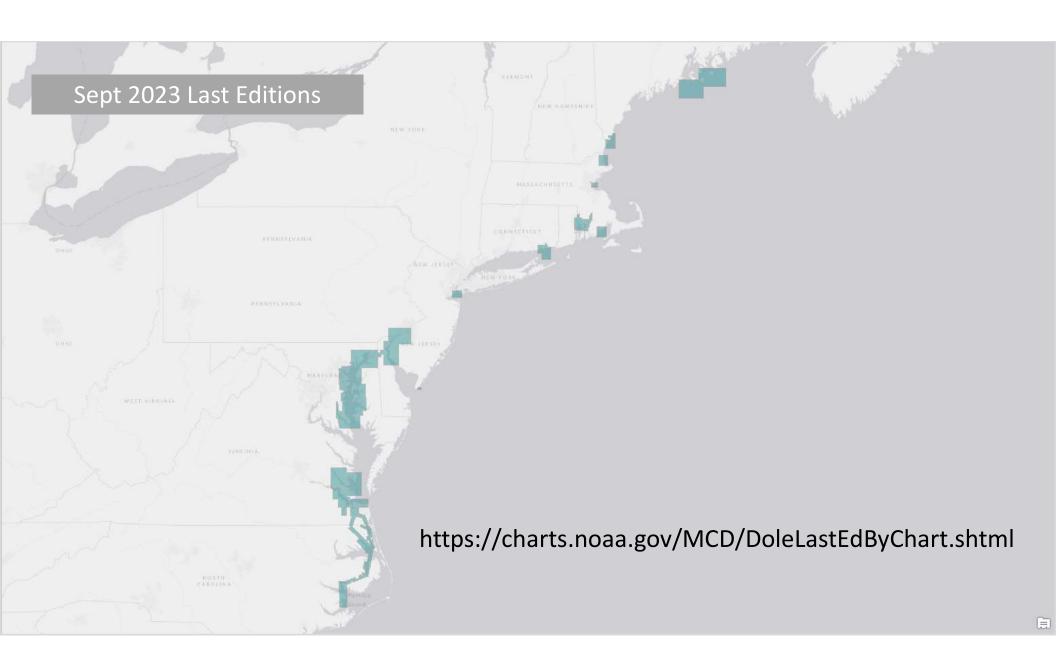
Raster Chart Status as of Sep 7, 2023

Canceled 523
Last Edition + 193
Subtotal 716
Active Charts + 291
Total 1007





291 charts / 9 months = 33 last editions per month through June 2024 to complete sunset by Jan 2025.



₩eekly Chart Updates





https://distribution.charts.noaa.gov/weekly_updates/

High Tide Flooding: Mid-Atlantic Outlook

Overview:

• The Mid-Atlantic continues to experience rapid increases in high tide flooding due to the long-term effects of high rates of relative sea level rise, primarily due to land subsidence, global sea level rise, and regional oceanographic effects.

2. 2022 Summary:

• Last year, the Mid-Atlantic experienced 8 flood days on average. The NOAA station with the highest number of flood days was Wachapreague, VA, with 12 days recorded.

3. 2023 Outlook:

- This year, the Mid-Atlantic is predicted to experience between 9 and 14 high tide flood days, a 300% increase in flood days since the year 2000.
 The region is predicted to experience some of the most frequent high tide flooding in the Nation, due to the effects of El Niño conditions, which contribute to increased storm activity in the region.
- NOAA's station in <u>Sewells Point, VA</u>, is expected to experience the highest number of high tide flood days in this region, with 19 days predicted.
- 1. What contributes to coastal flooding in the region?
 - The Mid-Atlantic is routinely impacted by flooding throughout the year due to its low-lying coastal lands, wide and shallow continental shelf, and exposure to coastal storms. Coastal flooding in this region is predominantly weather driven, including both tropical systems coming up the coast from the south, and non-tropical offshore storms bringing winds and ocean currents from the east and northeast.
- 2. When might I expect high tide flooding to occur?
 - In the Mid-Atlantic, the highest number of stations are likely to experience high tide flooding during September and October 2023. The region will have a risk of high tide flooding during these months because perigean spring tides will occur during the full moons. Mean sea levels are also generally higher in the early fall months due to warmer, expanding ocean water and changes in weather patterns, further increasing the likelihood of high tide flooding.
- Visit the Monthly High Tide Flooding Outlook to see what days specific locations in the region are more likely to experience high tide flooding. As potential flooding days grow closer, visit the Coastal Inundation Dashboard to monitor water levels in real-time.

Updated OCS Strategic Plan goals



NOAA survey assets







Thomas Jefferson Norfolk, Virginia



Ferdinand R. Hassler New Hampshire



Bay Hydro II Silver Spring, Maryland



5 Navigation Response Teams (NRTs)



King Air







Comments and Feedback ASSIST Tool Restor Point Assessment From Business (Great Point Assessment From Busine



https://www.nauticalcharts.noaa.gov/customer-service/assist/





NOAA OCS update

September, 2023

Ryan Wartick – Office of Coast Survey
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Agenda

Overview of NJWP Development

Construction Progress

Permit Application Schedule

NJWP Development Timeframe

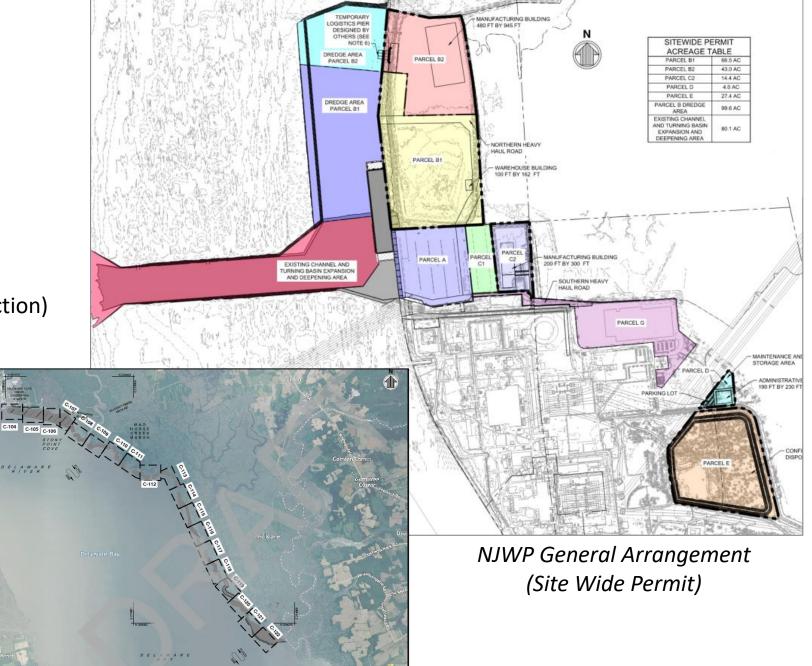
Open Discussion & Questions



NJWP Rendering

NJWP Overview

- Marshaling Ports
 - Parcel A (under construction)
 - Parcel B1
- Manufacturing Facilities
 - Parcel B2
 - Parcel C (C1 under construction)
 - Parcel G (substation under construction)
- Offices/Parking
 - Parcel D
- Confined Disposal Facility
 - Parcel E
- Beneficial Use Project



Beneficial Use: Stoney Point Cove & Mad Horse Creek Marsh

Construction Progress (August 2023)



Parcel A

Construction Progress (August 2023)



Parcel C1

Permit Application Schedule

Agency Coordination

- Lessons learned and initial discussions incorporated into permitting approach
- Coordination meetings have been held with independent agencies, as well as joint agency meetings, ad-hoc related to Phase 1B and 2 permit submission.
- Agency coordination will be ongoing during the permit process









Phase 1B Permit Submission Status (Parcels C1, G, and Southern Heavy Haul Road)

COMPLETE

NJDEP Land Use IPs*

Feb 2023

~ 5 months

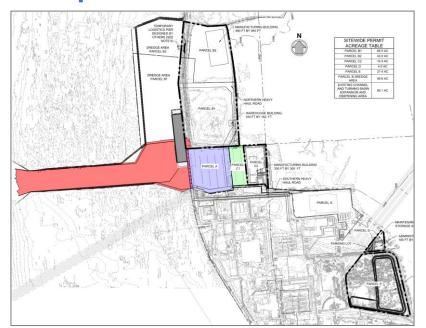
June 2023

Phase 2 Sitewide Permit Submission Status (Parcels B1, B2, C2, D, E, BU, Logistics Pier, and Northern Heavy Haul Road)

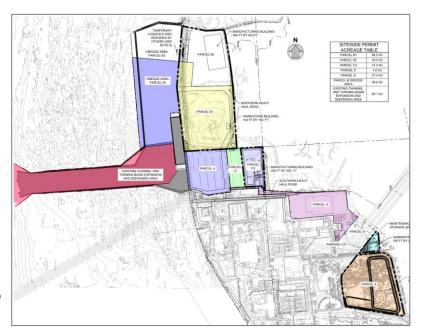
~ 9 months October 2023 Feb 2023 NJDEP Land Use IPs* Feb 2023 ~ 15 months May 2024 USACE Section 10/404 IP* ~ 11 months **DRBC** Docket Approval Apr 2024 May 2023 Mar 2023 ~ 11 months **DNREC Coastal Consistency** Feb 2024

^{*} Note – Does not include General Permit/Nationwide Permits for test pile program which will be done as separate activities and are anticipated to take approximately 30 days

NJWP Development Timeframe



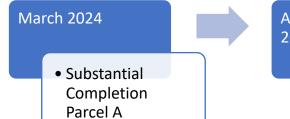
2024



2026/7



What to expect for 2024



As Early as April

• Vessel Operations Start

Aug/Sept 2024

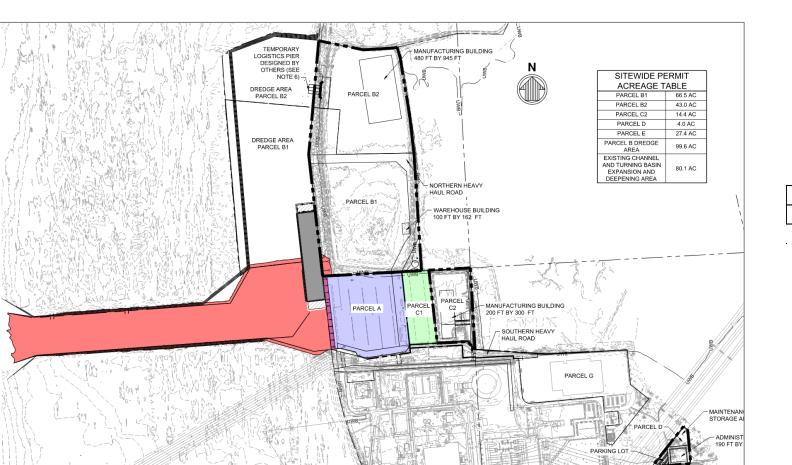
 Main Substation Completed

Q3 2024

• Parcel E CDF Completed

October 2024

Parcel C1
 Completed (add. marshalling)



	Vessel Calls for Parcel			
Parcel	Feeder Barge (Installing)	Delivery Vessel (Components)		
А	92	31		
	Every 2 days	Every 7.5-10 days		

What to expect for 2024





2025 and beyond

End of 2024

Dredging Parcel B1 Lite

End of 2025

Parcel C2 Completed

Mid-2026

• B1 Lite Completed

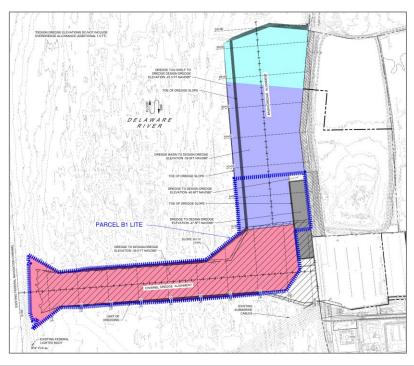
2027

Parcel G

2028

• Parcel B2





	Vessel Calls for Parcel			
Parcel	Feeder Barge (Installing)	Export Barge (Exporting to other project)	Delivery Vessel (Components)	Delivery Vessel (Sub Components)
А	92	0	31	0
B1	106	0	49	0
С	0	18	0	27
G	0	18	0	27
B2	0	30	0	30
TOTAL	198	66	80	84

Milestones Before Start of Operations

- Provide Project Data to Pilots Association and MAC
- NOAA Charting
- Test Run for Pilots (Q1 2024) MITAGS
- Onboarding of a Port Operator (solicitation forthcoming)
- USCGS Approval

