

A photograph of a city street covered in snow during a winter storm. In the foreground, a person wearing a dark coat and a backpack is walking across the snow. The street is lined with tall buildings, and a large, ornate building with a clock tower is visible in the background. The sky is a pale blue, suggesting dusk or dawn. Streetlights and traffic lights are visible, with one traffic light showing a red light. A "NO TURNS" sign is also visible on the right side of the street.

# Winter Storm Fern Deep Freeze 2026 USCG Sector Delaware Bay Incident Review

EMFR Ver1 May 2026

Presented to an advisory subcommittee of the DRBC on May 14, 2026. Contents should not be published or re-posted in whole or in part without permission of the presenter or the DRBC.

# The Storm

From January 23 to January 27, 2026, a very large and expansive winter storm, unofficially referred to as Winter Storm Fern by The Weather Channel and various news outlets, or “Snowmageddon” in some areas, caused deadly and catastrophic ice and snow impacts across a very long stretch of land, encompassing Northern Mexico to the Southern and Northeastern United States and into Canada.

All state parks in New Jersey were closed on January 24 at 5:00 p.m. SEPTA also began suspending service on January 25 at 2:00 p.m.

Near 0-degree conditions prior to the storm had already set up the upper Delaware River towards the initial stages of freezing

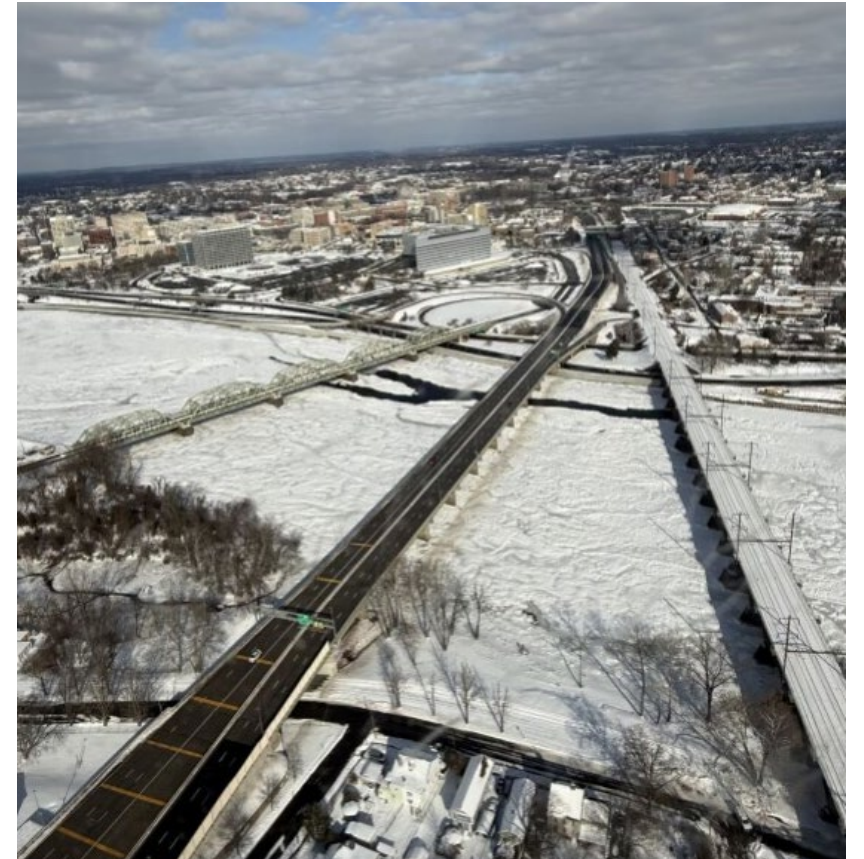
# The Storm

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26 Jan: Sector CO closed the base at Sector Del Bay to give Base Engineering a chance to clear the snow and ice to make the base operational for staff to resume work and get ready for incoming response issues.

Port Condition (modified) Whiskey was set in the lower Delaware Bay due to high winds and visibility securing vessel and facility operations.

Marine Transportation System (MTS) priority targets in the upper Delaware River were identified for protection, and the USCGC William Tate was put on standby to assist if these critical facilities became iced in.



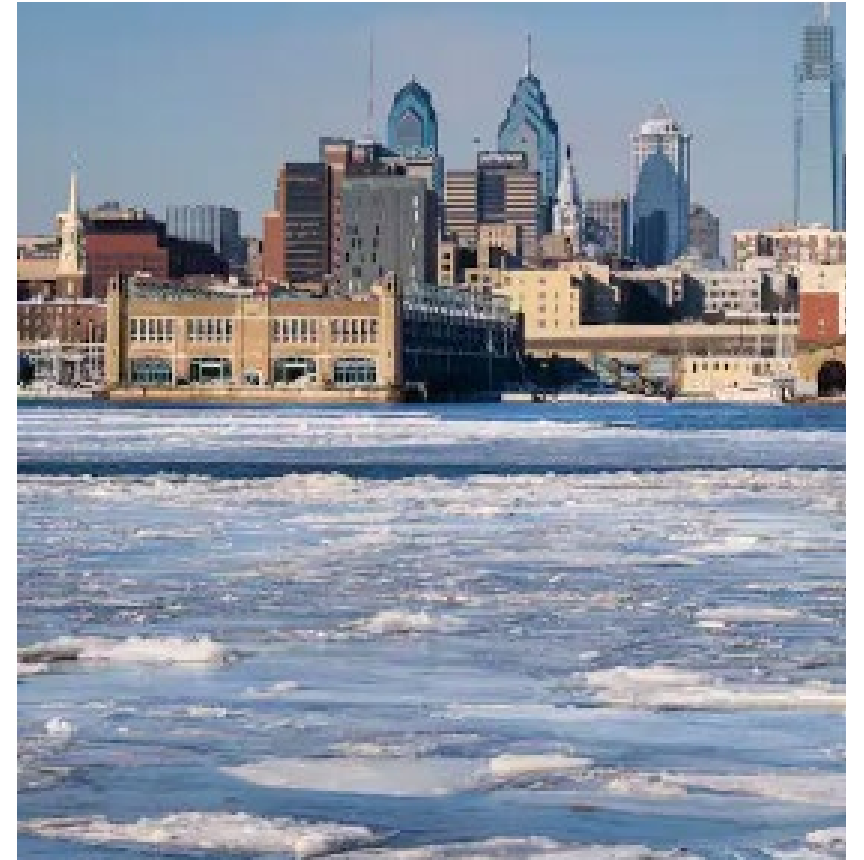
Bridges to Trenton, NJ: 25 Jan 2026

# The Storm

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NWS forecast stated “In addition to the potential major winter storm, dangerous cold is expected to continue after the storm through next weekend. Wind chills and temperatures in the single digits to below zero are expected for several consecutive nights.”

Sector Delaware Bay had not conducted/facilitated major icebreaking operations in over 10 years. Hazardous ice conditions could be expected on the river after 5 days of freezing temperatures. The NWS was now predicting that in addition to the previous 3 days of freezing temps we were about to get at least 7 more.





Post Storm: 27 Jan Delaware River Looking South  
From the Burlington Bristol Bridge

# Post Storm

27 Jan 2026

Winds decreased below 20 Kts and Sector Delaware Bay set Ice Condition 1 and lifted Port Condition Whiskey. An incident management team was called up to manage ice related impacts in the Delaware River and Bay. SDB had USCGC William Tate ready to get underway and contracted ice breaking tugs to ensure critical Marine Transportation System (MTS) mobility.

All operational units, including stations, ANTs, MSU Lewes, and Sector were operational, with partial degradations due to hazardous winds, sea state, and icing. The heavy weather bill was set for all stations. STA Manasquan Inlet, STA Barnegat Light, and Air Station Atlantic City all reported roof leaks at their facilities and began seeking options for facility assessments and repairs.



# Ice Conditions: What are they?

Ice Condition Decision Making Guide - Sector Delaware Bay														
Location:	C&D Canal		Lower Delaware River		Upper Delaware River		Delaware Bay		NJ Coast & ICWW		Salem River		Schulykill River	
Ice Condition:	Thickness	Coverage	Thickness	Coverage	Thickness	Coverage	Thickness	Coverage	Thickness	Coverage	Thickness	Coverage	Thickness	Coverage
Seasonal Alert	0-1"	0%	0-1"	0%	0-1"	0%	0-1"	0%	0-1"	0%	0-1"	0%	0-1"	0%
Ice Condition One	1-3"	10-30%	1-3"	10-30%	1-3"	10-30%	1-3"	10-30%	1-3"	10-20%	1-3"	10-30%	1-3"	10-30%
Ice Condition Two	3-9"	30-90%	3-12"	30-90%	3-9"	30-90%	3-12"	30-90%	3-9"	20-60%	3-9"	30-90%	3-9"	30-90%
Ice Condition Three	9+"	90+%	12+"	90+%	9+"	90+%	12+"	90+%	9+"	90+%	9+"	90+%	9+"	90+%

## RESTRICTIONS DUE TO PRESENCE OF ICE

Ice Condition:	Restrictions Imposed:
Seasonal Alert	No restrictions
Ice Condition One	Consider steel hull restriction
Ice Condition Two	Steel hull restriction in place - Consider HP & Keel Cooler Restriction
Ice Condition Three	Steel hull, horsepower, keel cooler restrictions in place. Consider requiring convoys & MTSRU

## WATERWAYS MANAGEMENT BRIEFING SCHEDULE

Ice Condition:	Briefing Schedule:
Seasonal Alert	No brief. Maintain open comms w/ MAC, OGAs, SecBalt, and industry stakeholders
Ice Condition One	Incorporate Ice Condition & Restrictions into morning brief. Update stakeholders via BNM, MSIB, Hotline, CART, D5 website
Ice Condition Two	1000 Brief, Mon - Fri. Conditional brief on Sat/Sun if Thurs - Sun wx forecasts call for overnight SDL & Sub32F days.
Ice Condition Three	1000 Brief Daily



## IMT Stand Up

28 Jan 26

USCG Sector Delaware Bay stood up their Incident Management Team (IMT) on 28 Jan primarily focused on MTS response and providing communications with external stakeholders.

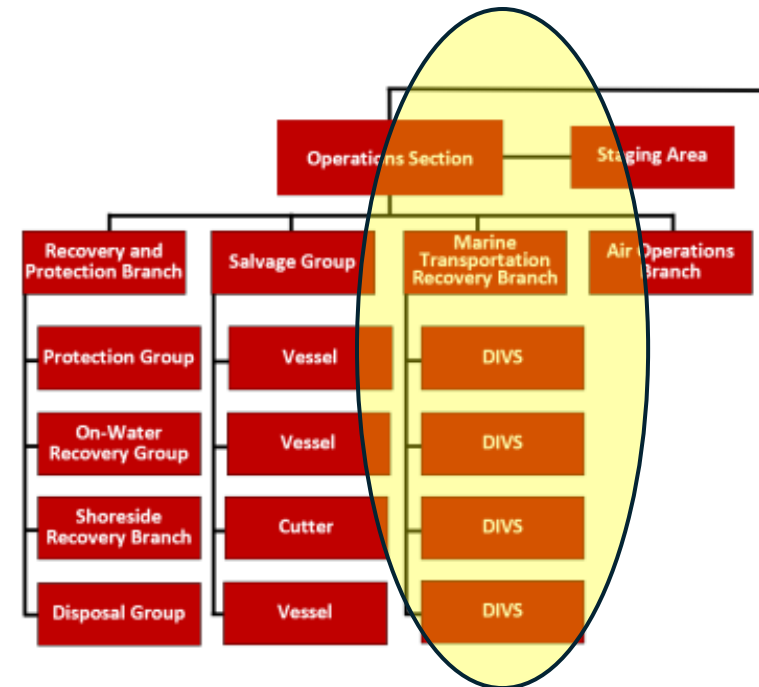
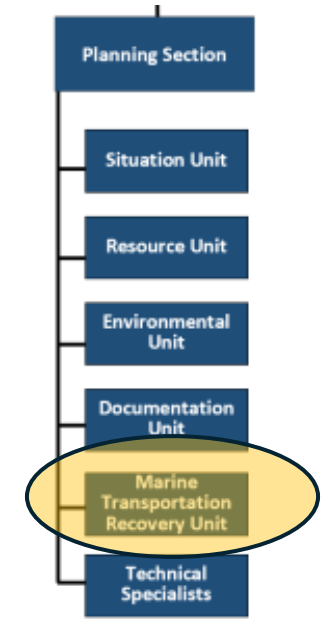
Marine Transportation System Recovery Branch was formed within the operations section.

# Marine Transportation System Recovery Unit/Branch: What is it?

Withing an Incident Command System managed event, the MTS Recovery Unit (MTRSU) is a part of the overall response and recovery effort following a significant port disruption. It is uniquely a USCG construct.

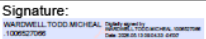
While Federal, State, and local authorities are working on a wide range of emergency response activities, the MTRSU has the singular focus on re-opening the port for the resumption of commercial activity. The MTRSU works for the Planning Section in most responses.

If the event becomes the focus of the response and than the entity will be assigned Operational resources and be moved to the Operations Section.



# Initial Actions/Tasking

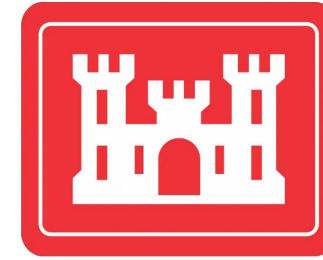
- USCG Icebreaking assets were decommissioned
- Commercial icebreaking tugs/vessels needed to be found and put on contract
- Ice assessments needed to be completed in the northern part of the river
- MTSRU and stakeholder calls needed to be scheduled
- OEMs were contacted with potential critical needs impacts (salt)

DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD <b>INCIDENT ACTION PLAN (IAP) COVER SHEET</b>			
1. Incident Name: Winter Storm Fern	2. Incident Location: Sector Delaware Bay AOR	3. Operational Period (Date/Time): From: 27JAN26 To: 04Feb26	
4. Approved by Incident Commander(s):			
Organization		Name	
USCG		Captain Kate Higgins-Bloom	
USCG		Captain Roberto Rivera	
5. Forms and Documents:			
<b>INCIDENT ACTION PLAN</b>			
The items checked below are included in this Incident Action Plan:			
<input checked="" type="checkbox"/> ICS 202-CG (Incident Objectives)			
<input checked="" type="checkbox"/> ICS 203-CG (Organization List)			
<input checked="" type="checkbox"/> ICS 204-CG(s) (Assignment List) (One copy each of any ICS 204-CG attachments)			
<input checked="" type="checkbox"/> ICS 205-CG (Communications Plan)			
<input type="checkbox"/> ICS 206-CG (Medical Plan)			
<input type="checkbox"/> ICS 207-CG (Organization Chart)			
<input checked="" type="checkbox"/> ICS 208-CG (Safety Message)			
<input checked="" type="checkbox"/> Map / Chart			
<input checked="" type="checkbox"/> Weather Forecast / Tides / Currents			
<u>Other Attachments</u>			
<input checked="" type="checkbox"/> Maritime Safety Information Bulletin			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
<input type="checkbox"/> _____			
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<input type="checkbox"/> _____			
6. Prepared by:			
Name: LT Nicholas Muzo	Position Title: SITL	Signature: 	Date/Time: 27JAN26/ 1054

# Stakeholder Outreach:

- SDB. SDB IMT participated in daily calls with PEMA, Philly OEM, and NJOEM. Sector Commander held daily senior leader sync with PEMA, NJOEM, Philly Mayor's Office, Philly OEM, Army Corps of Engineers.
- MTSRU in daily (or more) syncs with MARAD, Dept of Energy, Dept of Transportation, CISA, Pilots Association, Mariners Advisory Committee, and Maritime Exchange.

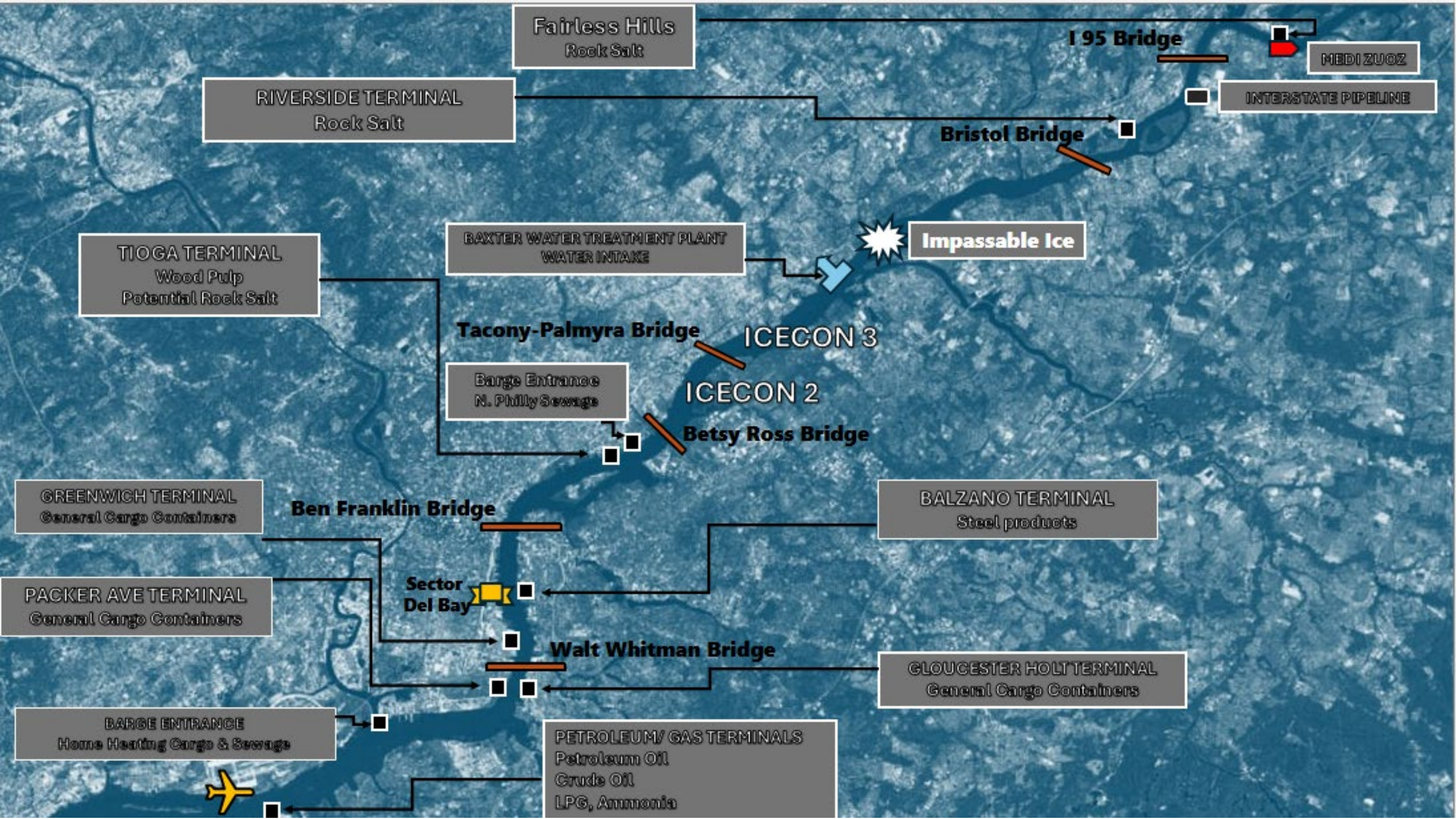
# Some of the Stakeholders Involved:



# 29-30 Jan 2026 Ops

- Sector Delaware Bay COTP remains in Ice Condition 3 for the Delaware River north of the Tacony-Palmyra Bridge, and Ice Condition 2 set for the rest of the Delaware River and Bay south of the Tacony-Palmyra Bridge.
- Tug Miami hired for icebreaking operations using USCG funding. USCGC William Tate continues to assist with ice breaking mission despite limitations
- Icing at the intakes at the Samuel S. Baxter Water Treatment Facility. The facility supplies potable water to over 750,000 Philadelphia residents.
- The 600' foreign flagged bulk carrier M/V MEDI ZUOZ is beset in ice at the Riverside Concrete facility in Bristol, PA.
- NJ/PA OEM's have received concerning messages over cancelled road salt deliveries to Fairless Hills
- Philadelphia WD sewage dock operations just below the Tacony Palmyra bridge are being threatened
- Burlington NJ jet fuel pipeline dock for JB MDL is presently becoming non-navigable due to ice conditions. DOD/DLA representatives are sought for notification.





# 31Jan-02Feb 2026 Ops

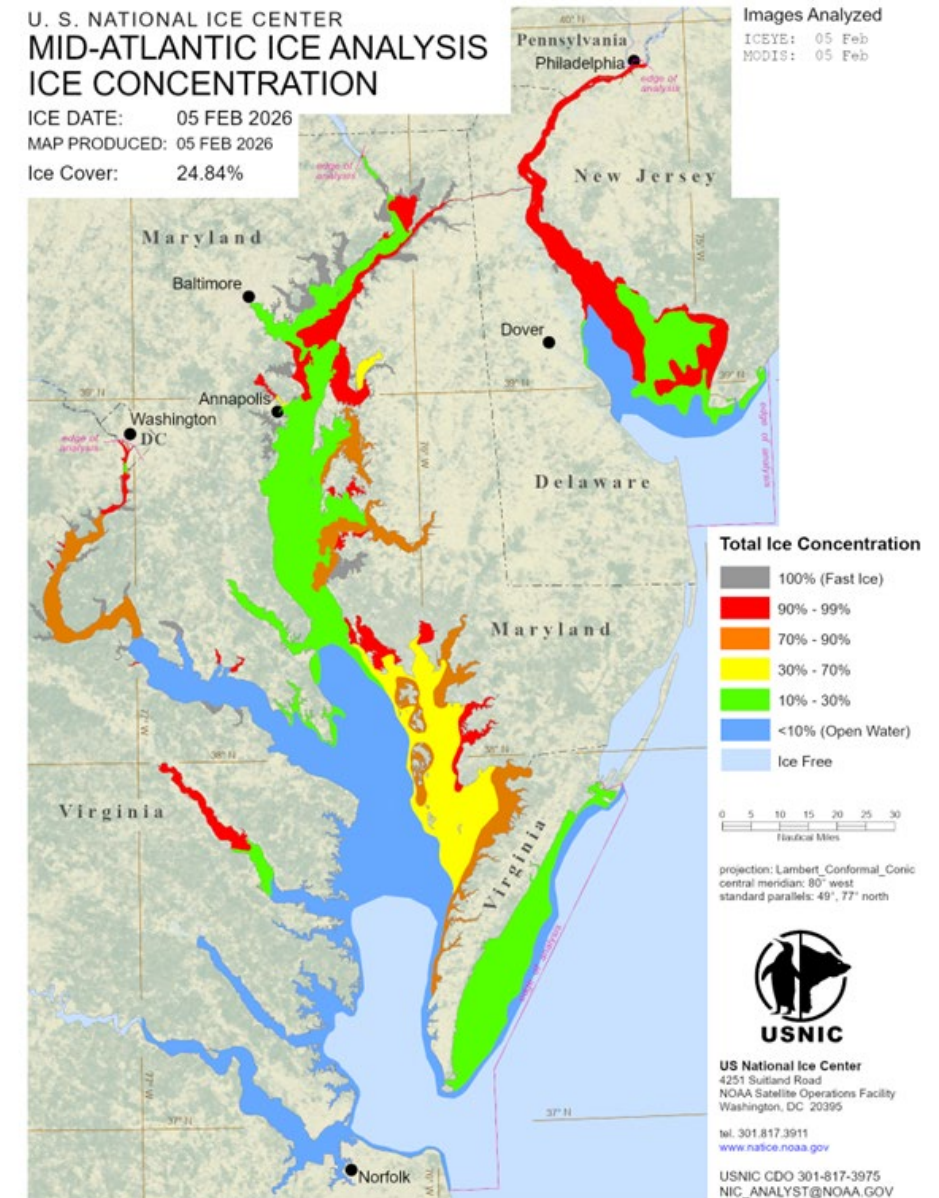
- Port Condition Whiskey (Modified: this was due to winds/visibility); Ice Condition 3 (North of Tacony-Palmyra Bridge) and 2 (South of Tacony-Palmyra Bridge).
- Tug Miami paused for icebreaking operations and given over to Philadelphia for use in and around Baxter Water plant. Another heavy ice breaking tug was found and was enroute. USCGC William Tate continued to assist with ice breaking mission despite limitations
- The 600' foreign flagged bulk carrier M/V MEDI ZUOZ was fully beset in ice at the Riverside Concrete facility in Bristol, PA. Fire pumps and some engineering water systems were frozen. Crew welfare is being monitored as they cannot get off at this pier due to no access to land
- At least 3 bulk carrier vessels carrying road salt were diverted to other moorings from this facility due to inaccessibility from icing
- Philadelphia WD sewage dock operations just below the Tacony Palmyra bridge were threatened as ice continues to build up
- Burlington NJ jet fuel pipeline dock for JB MDL is was becoming non-navigable due to ice conditions. DOD/DLA representatives were sought for notification. Dover AFB southern connection was also having issues with navigation.
- Croydon Power Plant Constellation Energy (Ice Con 3). The Croydon Plant tanks were at 87%, which was 150 hours (6 Days) of full load run time. Constellation Energy worked to schedule a 25K barrel #2 oil barge on February 3rd or 4th, inaccessible by vessel, then current ice thickness was beyond the capability of our local Coast Guard assets and the AOR's harbor tugs



Paulsboro Refinery, NJ

# 02Feb-06Feb 2026 Ops

- Port Condition Normal; Winter Port Condition: Two; Ice Condition 3 (North of Tacony-Palmyra Bridge) and 2 (South of Tacony-Palmyra Bridge).
- Commercial heavy ice breaking tug Atlantic Salvor was brought in to break heavy ice up toward Fairless Hills. USCGC William Tate suffered multiple systems damage due to ice breaking operations. The crew continues to fix the vessel to put it back in service only to damage other systems
- CPI Oil Refinery at Mantua Creek (Ice Con 2) inaccessible due to ice along the pier.
- All current vessels carrying salt were diverted at the national state EMAC level towards southern states that had no salt reserves for winter impact. Initial salt shortages were exaggerated at the local level and validated as adequate at the state level
- CISA was contacted for assistance with regional planning assistance and help with DOD supply lines. Initial efforts were unfocused due to unfamiliarity with the USCG MTS information requirements. End products became useful
- Croydon Power Plant Constellation Energy notified USCG that they had not been activated and were part of a power consortium. Due to a lack of damage to power transmission infrastructure the fuel levels of the plant were adequate to maintain the plant until the channel could be cleared
- Most USCG small boat station were either not mission capable or partially mission capable in the Sector Del Bay AOR. Over 17 Aids to Navigation were missing or off station. E-Aton (Electronic Aids to Navigation) was requested to cover the missing ATON on the river system.



# Projected Weather Conditions

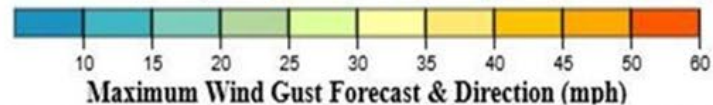
## Temperature Forecast (°F)

		2/6	2/7	2/8	2/9	2/10	2/11	2/12	2/13	Maximum
		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	
Allentown, PA	High: 30 Low: 13	26 5	19 2	26 3	34 13	36 20	32 21	34 18	36	
Atlantic City, NJ	High: 34 Low: 22	27 11	22 6	29 11	35 19	39 28	35 26	36 23	39	
Dover, DE	High: 33 Low: 18	27 9	22 6	29 10	38 19	43 27	36 27	37 23	43	
Easton, MD	High: 35 Low: 17	28 12	22 7	29 12	39 20	43 28	38 28	40 24	43	
Georgetown, DE	High: 36 Low: 20	28 10	23 6	30 11	41 19	46 27	39 28	40 23	46	
Hackettstown, NJ	High: 31 Low: 8	21 4	18 -1	26 4	34 11	34 18	32 20	34 17	34	
Mount Pocono, PA	High: 24 Low: 10	19 -1	12 -4	21 2	31 11	31 18	26 17	30 15	31	
Philadelphia, PA	High: 32 Low: 16	27 9	20 5	26 8	34 17	38 25	33 26	34 21	38	
Reading, PA	High: 31 Low: 13	27 6	20 3	26 5	35 15	38 23	33 23	35 20	38	
Toms River, NJ	High: 34 Low: 14	25 8	22 3	27 7	34 14	39 23	34 23	37 19	39	
Trenton, NJ	High: 32 Low: 14	26 8	20 4	26 5	33 13	36 21	33 23	35 19	36	
Wilmington, DE	High: 32 Low: 16	26 9	20 5	27 8	35 18	39 25	34 26	35 21	39	



## Maximum Wind Gust Forecast & Direction (mph)

		2/6	2/7	2/8	2/9	2/10	2/11	2/12	2/13	Maximum
		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	
Allentown, PA	9↗	49↘	37↘	13↘	9↗	14↗	20↘	15↗	49	
Atlantic City, NJ	13↓	53↘	44↘	20↘	10↘	16↗	23↘	20↘	53	
Dover, DE	8↘	55↘	43↘	13↘	9↗	15↗	20↘	16↗	55	
Easton, MD	9↗	52↘	37↘	13↘	9↗	15↗	20↘	16↗	52	
Georgetown, DE	10↗	55↘	43↘	15↘	12↘	17↗	23↘	18↗	55	
Hackettstown, NJ	9↗	47↘	36↘	15↘	10↘	13↗	20↘	15↗	47	
Mount Pocono, PA	13↗	49↘	43↘	26↘	14↗	21↗	25↘	25↘	49	
Philadelphia, PA	7↗	49↘	37↘	12↘	9↗	13↗	20↘	15↗	49	
Reading, PA	10↗	48↘	37↘	14↘	10↘	14↗	21↘	16↗	48	
Toms River, NJ	8↘	55↘	41↘	14↘	9↗	14↗	20↘	16↗	55	
Trenton, NJ	6↗	47↘	35↘	12↘	8↗	12↗	17↘	14↗	47	
Wilmington, DE	8↘	55↘	40↘	12↘	9↗	14↗	20↘	16↗	55	



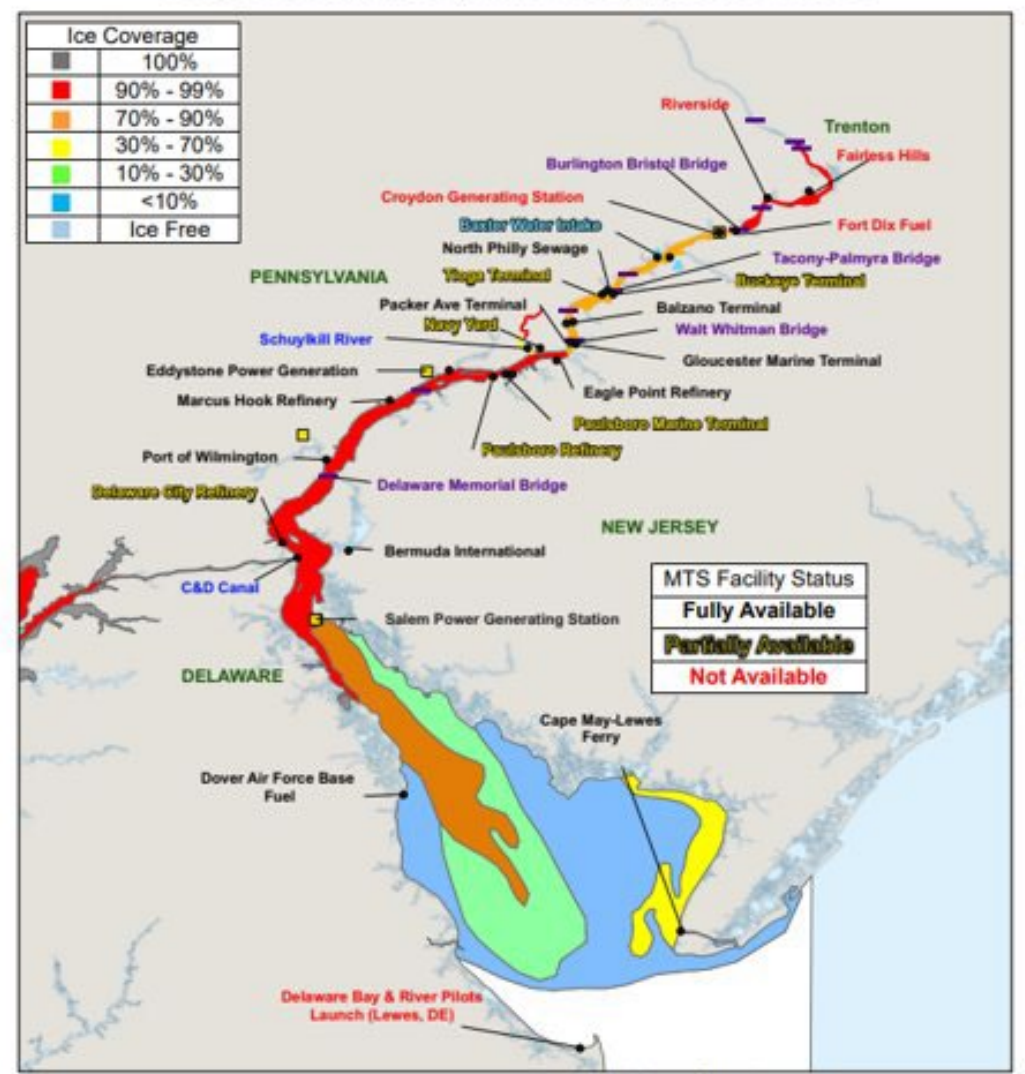
Created: 3 am EST Fri 2/6/2026 | Values are maximums over the period beginning at the time shown.

Created: 3 am EST Fri 2/6/2026 | Values are accumulations over the period beginning at the time shown.

# 07Feb-13 Feb 2026 Ops

- Port Condition Normal; Winter Port Condition: Two; Ice Condition 3 (North of Tacony-Palmyra Bridge) and 2 (South of Tacony-Palmyra Bridge).
- Commercial heavy ice breaking tug was brought in to break heavy ice up toward Fairless Hills. USCGC William Tate suffered multiple systems damage due to ice breaking operations. Tate stood down for maintenance. Second cutter called up from Baltimore to cover but it too developed maintenance issues.
- CPI Oil Refinery at Mantua Creek (Ice Con 2) inaccessible due to ice along the pier.
- Cape May Lewes Ferry ran limited operations due to both icing at one of the NJ docks and one ferry having mechanical issues.
- Eagle Point and Paulsboro Refinery as well as Buckeye Pipeline all had mooring issues at their facilities due to drifting ice build up.

Sector Delaware Bay MTS Ice Impact 09FEB26



2/9/2026

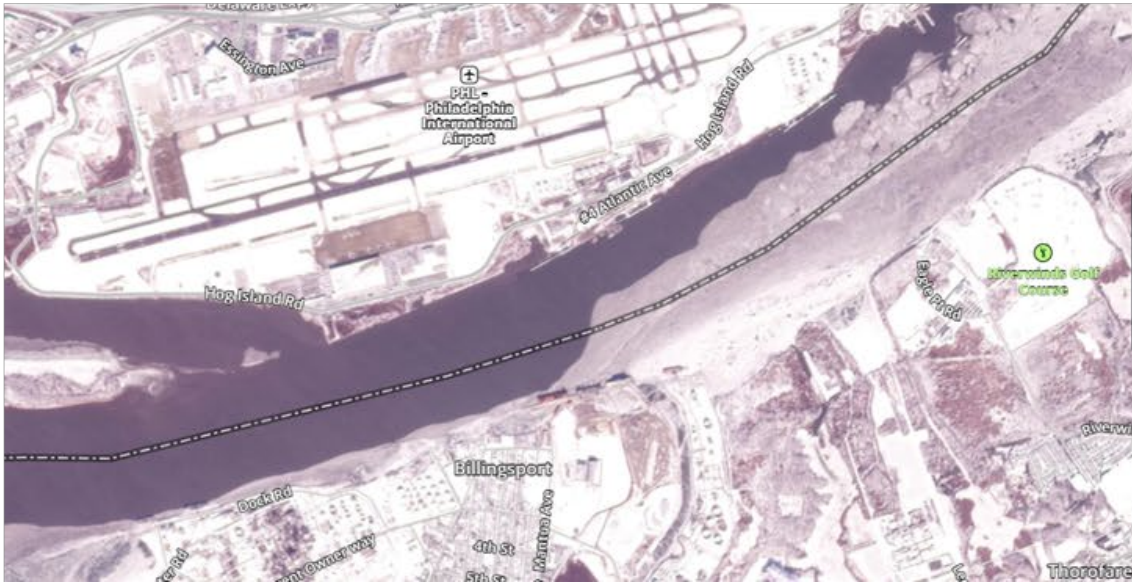
**Ice Thickness Overview**

- 1) Upper Delaware River: Fast, sheet, and pancake ice primarily 4 - 8 inches, with isolated areas of piled ice 10 - 12 inches.
- 2) Delaware River: Sheet, pancake, and frazil ice primarily 3 - 5 inches, along New Jersey. Isolated areas of piled ice 7 - 10 inches. The main navigation channel is partially impacted by pancake and frazil ice, dependent on winds and tidal influence.
- 3) Delaware Bay: Flows of sheet and pancake ice 2 - 4 inches, primarily along the New Jersey shoreline. The main navigation channel is partially impacted by sheet and pancake ice, dependent on winds and tidal influence.

- MTS Facilities
- Generating Stations
- Water Intake
- Bridges

# Paulsboro NJ

07FEB26 07FEB26

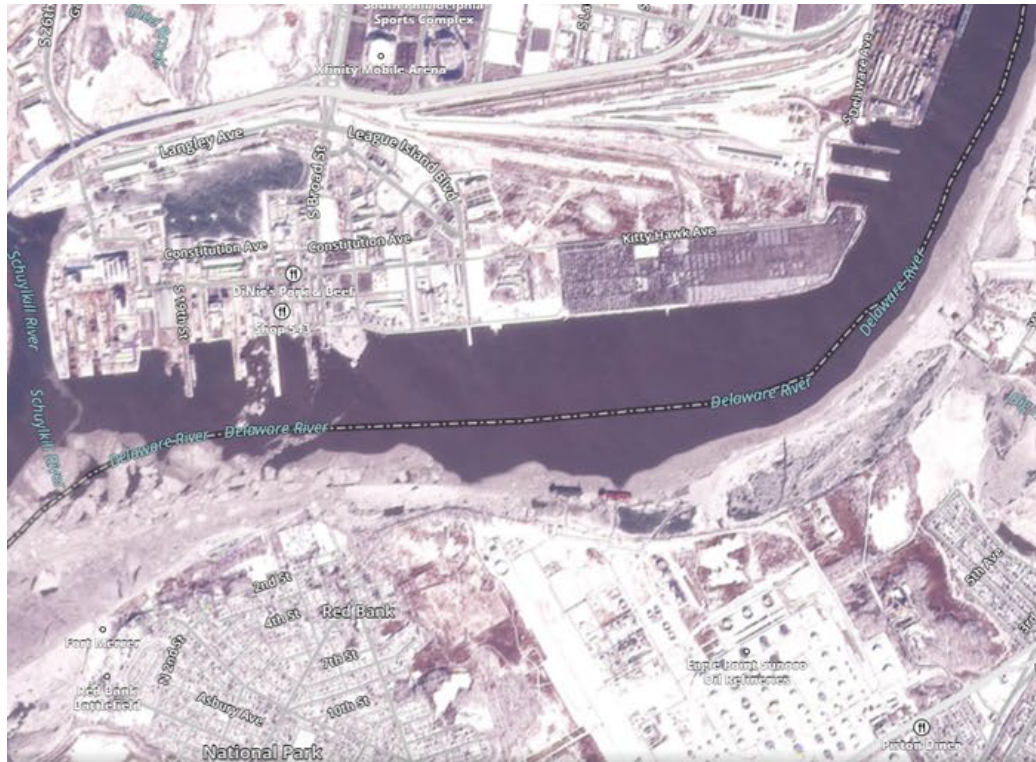


08FEB26 08FEB26



# Eagle Point Refinery

07FEB26



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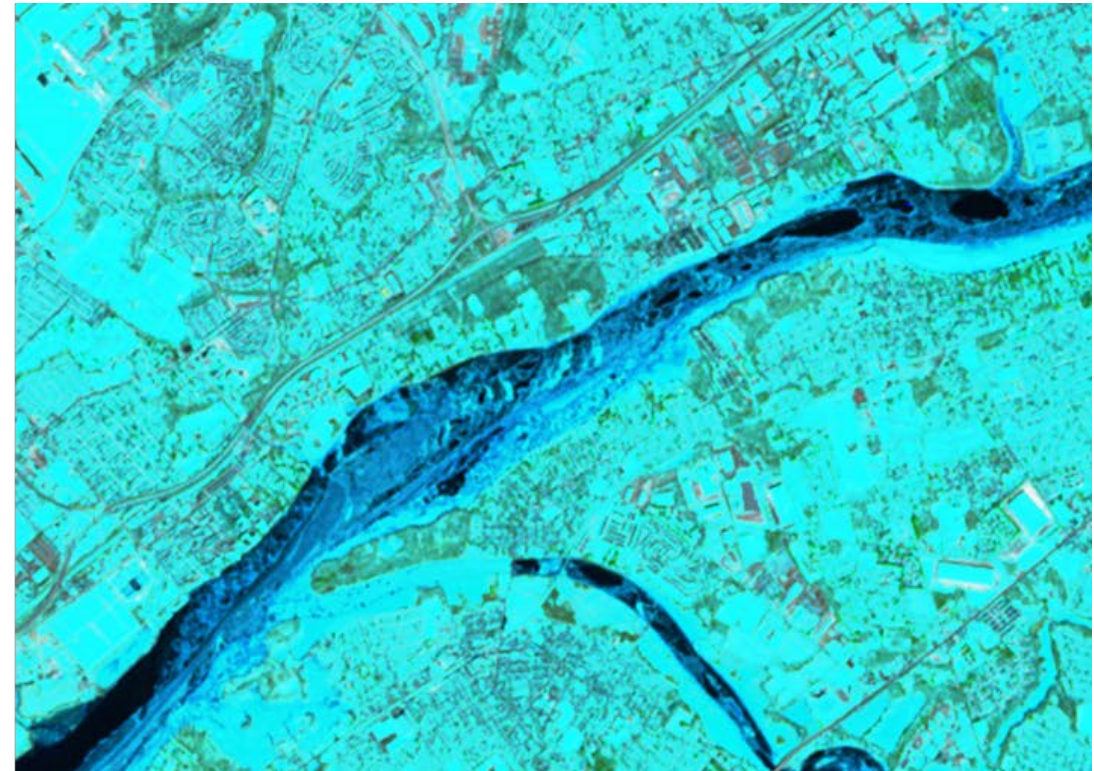
# Baxter Water Treatment

SAR (Synthetic Aperture Radar) Images to the Right.  
Used by satellites for looking through clouds etc.

**07FEB26**



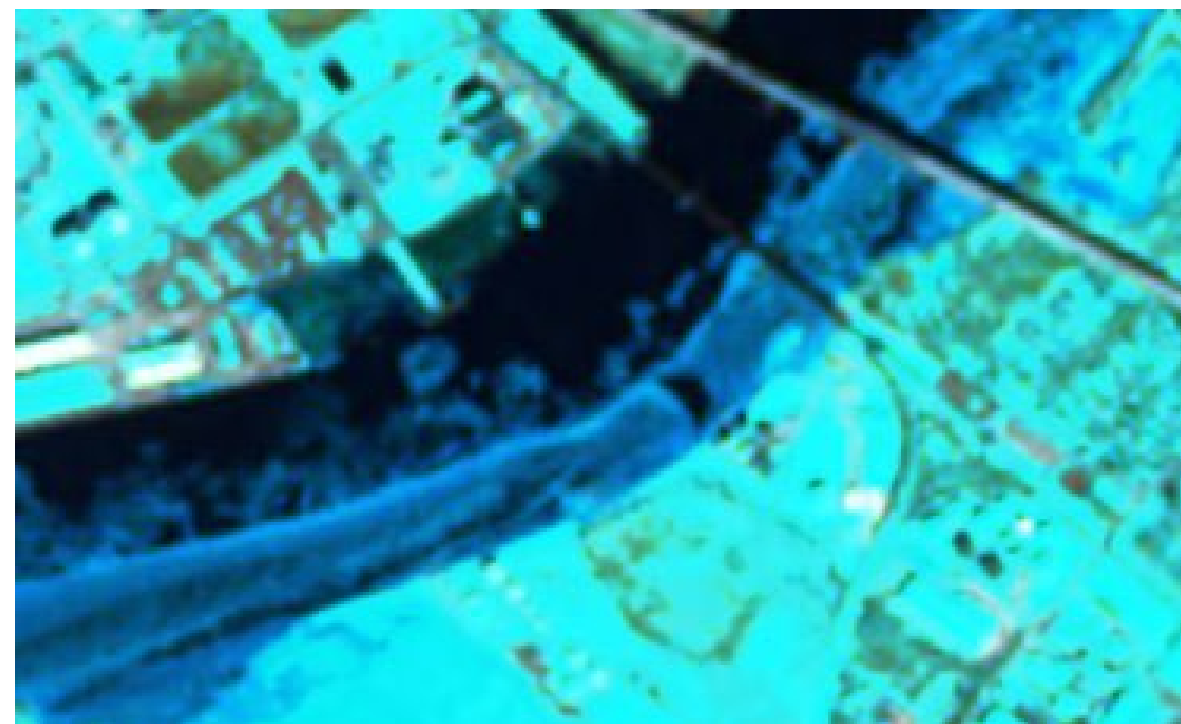
**08FEB26**



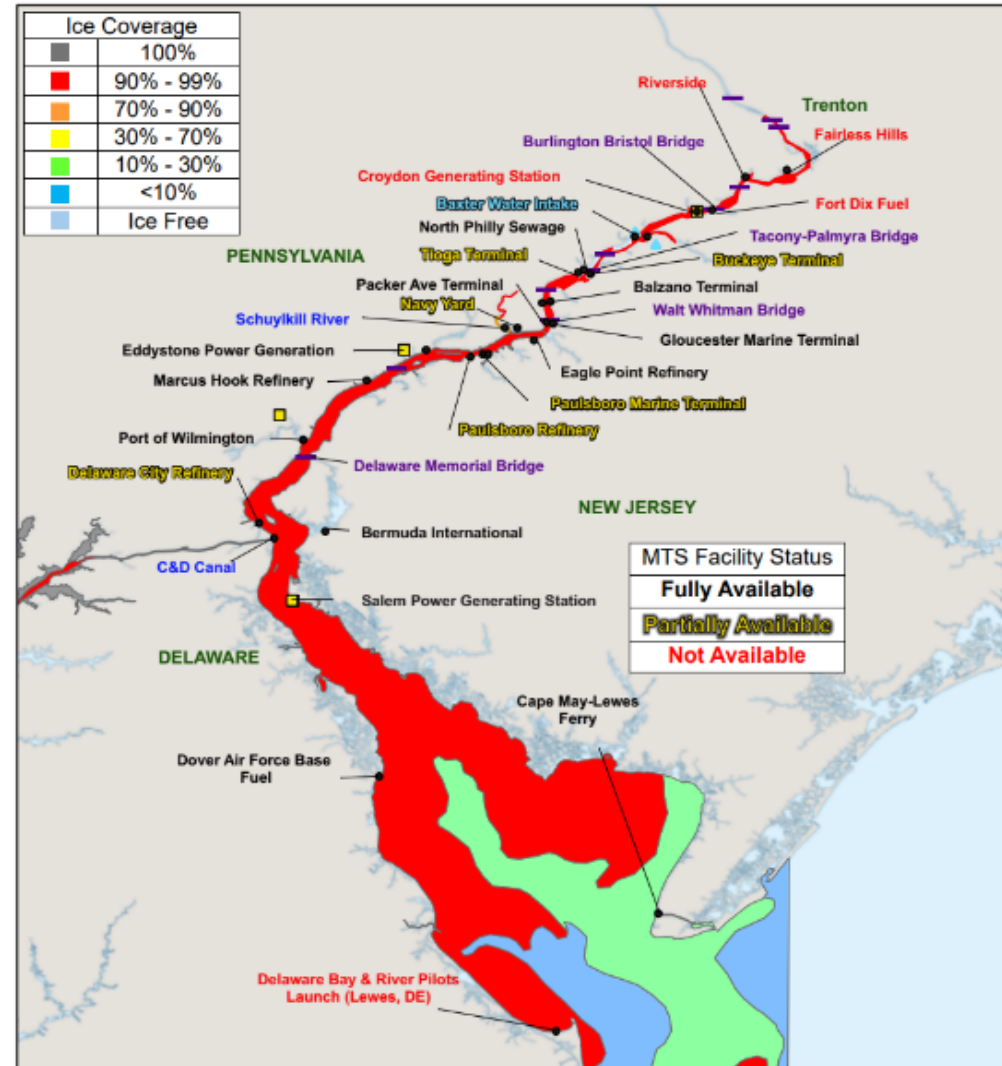
# Buckeye Pipeline

07FEB26

08FEB26



# Ice Impact Map Update: 11 Feb 26



2/11/2026

Ice Thickness Overview

- MTS Facilities
- Generating Stations
- ▲ Water Intake
- Bridges

- 1) Upper Delaware River: Fast, sheet, and pancake ice primarily 8 - 10 inches, with isolated areas of piled ice 12 - 18 inches.
- 2) Delaware River: Sheet and pancake ice primarily 5 - 7 inches, along New Jersey. Isolated areas of piled ice 10 - 12 inches. The main navigation channel is partially impacted by pancake, dependent on winds and tidal influence.
- 3) Delaware Bay: Flows of sheet and pancake ice 2 - 5 inches. The main navigation channel is partially impacted by sheet and pancake ice, dependent on winds and tidal influence.



# Final State

- The USCG Sector stood down the IMT on 09 Feb. The MTSRB was transitioned to a single MTSRU and then run out of the Sector Delaware Bay Waterways Management Shop.
- DHS shutdown started 14 Feb. Many civilians were recalled as essential at Del Bay due to port ice issues/response.
- On 16 Feb MSIB 10-26 relaxed ice condition 3 for the upper Delaware River after a series of warm days in the upper 50's to 60's.
- On 04 March 2026 ice conditions were fully lifted and the port returned to a seasonal ice alert
- MTS was facilitated/assisted by the Sector directly for over 18 days.

# Lessons Learned

- Sec Del Bay desperately needs to replace its lost “in house” low draft, heavy ice breaking capability.
- Not all stakeholder contacts communicate with internally with each other even within states/cities such as Water Department, Sewage, Philadelphia OEM, power, FD etc. Go out of your way to ensure you are reaching everyone.
- The USCG needs to understand the make-up of the local power grid as well as the consortiums it is a part of.
- USCG needs to continue to work with CISA’s Infrastructure Protection teams to develop useful information products that will be helpful in future events.
- Tug and barge tracking as well as vital statistics on HP, hull type etc for operators inside the port should be maintained.
- Closer coordination with municipalities as to what intakes/facilities need protection or assistance in advance would allow the USCG to enter these into their Common Access Reporting Tool (CART) so that they are never overlooked during future incidents.
- USCG “lost” 56 Aids to Navigation buoys, range lights or platforms during the ice event. These ATON’s may take years to replace. Sec Del Bay has asked operators on the river for a listing of critical items to repair first and an additional list of those that they may feel are unnecessary to put back.
- Some small towns/municipalities claimed they were out of salt. This led to a sense of urgency that was not needed in finding alternate berths for bulk vessels carrying salt. State and county yards had more than enough salt to provide smaller towns etc (at cost not free!). In the future CG should check with State/County DOT prior to multiple local concerns. Temps were well below freezing so road salt was mostly useless! Most DOTs were not using it so there were no real shortages.
- DHS shutdowns initially did not affect operations, but the CG civilians went without a paycheck for over 68 days. DHS budget would not allow commercial tugs to get paid for ice breaking operations for over 2.5 months!



**ATON Operations Post Storm:**



Boat Ramp on Linden Ave, Jan 29 2026

# Questions?

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Specialist

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