QUARTERLY REPORT

April 1 – June 30, 2026

Hampton Roads Sanitation District

1434 Air Rail Avenue

Virginia Beach, VA 23455

September 10, 2026

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1. Introduction and Purpose

On September 26, 2007, the Hampton Roads Sanitation District (HRSD) entered into a Special Order by Consent (SOC) with the Virginia Department of Environmental Quality (DEQ) and thirteen (13) area Localities for the purpose of resolving certain alleged violations of environmental laws and regulations related to Sanitary Sewer Overflows (SSOs). On February 23, 2010, HRSD entered into an Amended Consent Decree ("Consent Decree") with the United States of America and the Commonwealth of Virginia for the purpose of fulfilling the objectives of the Clean Water Act and the Virginia State Water Control Law. This Consent Decree has been modified seven times by agreement of all parties in 2011, 2013, 2014, 2017, 2022, 2024 and 2026. In December 2014, the SOC was eliminated by DEQ and HRSD is no longer under state enforcement. On February 8, 2022, the Fifth Amendment to the Consent Decree was entered.

The Fifth Amendment to the Consent Decree requires:

"HRSD will submit quarterly SSO reports to VADEQ and EPA, in which HRSD will identify all SSOs, SSDs, Prohibited Bypasses, or unauthorized discharges from the HRSD SS System or the HRSD STPs. HRSD will identify those SSOs, SSDs, Prohibited Bypasses, or unauthorized discharges for which it asserts a claim of force majeure. If HRSD asserts a force majeure claim, it shall document the basis for such claim in the quarterly SSO reports. It will pay the associated undisputed stipulated penalties for all SSOs, SSDs, Prohibited Bypasses, or unauthorized discharges for which it did not assert a claim of force majeure within 90 days of the close of each calendar quarter. In addition, HRSD will submit all of HRSD's post-storm synopses reports for rain events during the quarterly reporting period to VADEQ and EPA as part of the quarterly reports for rain events that satisfy HRSD's current criteria for publishing a post-storm analysis, i.e.: (a.) one or more rain gauge sites meet a two-year or greater rainfall recurrence interval and at least 50% of sites in any treatment plant service area receive one inch of rainfall or greater; (b.) a rain gauge meets a five-year or greater rainfall recurrence interval; or (c.) a weather-related SSO occurs."

This quarterly report is submitted pursuant to Section XVII.D of the Consent Decree. HRSD has prepared this quarterly report in accordance with the above requirements to apprise the EPA (representing the United States of America) and the DEQ (representing the Commonwealth of Virginia) of steps taken toward meeting the obligations of the Consent Decree. Specifically, this quarterly report summarizes all Sanitary Sewer Overflows (SSOs), Sanitary Sewer Discharges (SSDs), Prohibited Bypasses, or unauthorized discharges from the HRSD Sanitary Sewer System or the HRSD Sewage Treatment Plants from April 1, 2026, through June 30, 2026, the associated post-storm synopses reports, claims of force majeure, and undisputed stipulated penalties.

During the reporting period, there were a total of eleven (11) SSOs, SSDs, Prohibited Bypasses, and unauthorized discharges from the HRSD SS System or the HRSD STPs. These are summarized in Tables 1 & 2.

2. Claim of Force Majeure

2.1. Sanitary Sewer Overflow

There were two (2) SSOs from the HRSD SS System during the 3-month reporting period. HRSD asserts a force majeure claim for zero (0) of the SSOs.

2.1.1. Basis of Claim

A description of the circumstances supporting a claim of force majeure is included in Table 1.

2.2. Unusual Discharges (Sanitary Sewer Discharge, Prohibited Bypasses, Unauthorized Discharge)

There were nine (9) unusual discharges from the HRSD SS System or the HRSD STPs during the 3-month reporting period. HRSD asserts a force majeure claim for four (4) Unusual Discharges that were non potable water, final effluent or there was no discharge to waters of Virginia or the United States.

2.2.1. Basis of Claim

A description of the circumstances supporting a claim of force majeure is included in Table 2.

3. Undisputed Stipulated Penalties

3.1. Sanitary Sewer Overflow

There were two (2) SSOs from the HRSD SS System during the 3-month reporting period. HRSD will pay undisputed stipulated penalties in the amount of $1,250 for two (2) SSOs.

3.1.1. Basis of Undisputed Stipulated Penalties
Calculation of undisputed stipulated penalties is outlined in Section XX "Stipulated Penalties" paragraph 110 of the Consent Decree. The calculated stipulated penalties are shown in Table 1.

Volume of the SSD or Prohibited Bypass	Penalty from the date of entry
Less than 100 gallons	$ 100
100 to 2,499 gallons	$ 750
2,500 to 9,999 gallons	$ 1,250
10,000 to 99,999 gallons	$ 4,700
100,000 to 999,999 gallons	$ 10,000
1,000,000 gallons or greater	$ 15,000

3.2. Unusual Discharges (Sanitary Sewer Discharge, Prohibited Bypasses, Unauthorized Discharge)
There were nine (9) unusual discharges from the HRSD SS System or the HRSD STPs during the 3-month reporting period. HRSD will pay undisputed stipulated penalties in the amount of $2,200 for five (5) Unusual Discharges.

3.2.1. Basis of Undisputed Stipulated Penalties

Calculation of undisputed stipulated penalties is outlined in Section XX "Stipulated Penalties" paragraph 110 of the Consent Decree. The calculated stipulated penalties are shown in Table 2.

Volume of the SSD or Prohibited Bypass	Penalty from the date of entry
Less than 100 gallons	$ 100
100 to 2,499 gallons	$ 750
2,500 to 9,999 gallons	$ 1,250
10,000 to 99,999 gallons	$ 4,700
100,000 to 999,999 gallons	$ 10,000
1,000,000 gallons or greater	$ 15,000

4. Post-Storm Synopses Reports

Post-Storm Synopses Reports are generated when:

- One or more rain gauge sites meet a two year or greater rainfall recurrence interval and 50% of sites receive one inch or greater rainfall
- A rain gauge meets a five-year or greater rainfall recurrence interval or
- A capacity related wet weather SSO occurs

There were two (2) Post-Storm Synopses Reports for the 3-month reporting period.

Table 1. Detailed Listing of HRSD SSOs

(April 1 – June 30, 2026)

Date and Time of Incident	Location	Sewer System Component	Potential Receiving Waters	Spilled In Jurisdiction	SSO Classification	Description of Incident from SSORS	SSO Duration	Action Taken and Explanation of SSO	Discharge Quantity (gallons)**	Amount Reaching State Waters (gallons)**	DEQ IR	Force Majeure Rationale or Stipulated Penalty
04/10/2026 11:30AM	8724 Gramel Street	Gramel Street & W Westmont Avenue Force Main (SF-007)	Storm catchment draining to Oastes Creek / Willoughby Bay	Norfolk	Infrastructure	HRSD received a report from the City of Norfolk of a sewage spill near Gramel Street and W Westmont Avenue and identified a failure in a 20-inch prestressed concrete cylinder pipe (PCCP) force main. Previous calls were received on 3/8/26 and 4/4/26, and the area was excavated, but a source could not be located. On April 10, 2026, HRSD located a failure originating from an abandoned section of 20-inch PCCP still connected to the active force main.	5 hour(s) 15 minute(s)	HRSD field staff responded immediately, confirmed this spill appeared to originate from HRSD infrastructure due to pressurized flow conditions, and began recovering sewage with a vactor before it reached the storm drain while coordinating with the City of Norfolk to temporarily hold flows. Hydro excavation began at 4:45 PM, at which point the spill ceased, and crews identified a failed section of previously abandoned PCCP pipe with exposed cage impressions. Crews installed a temporary sump pump to discharge to a nearby manhole and secured the site overnight. The following day, crews implemented pump-and-haul operations, isolated the line, removed the damaged section, and installed a capped transition piece. The site was cleaned of visible debris and restored, and crews jetted and vac'd the gutter on Gramel Street to collect any sewage or debris. The likely cause of the failure was internal corrosion from an air pocket created by improper abandonment. -----April 14, 2026 04:39 PM-----	8,625	3,750	SSORS#2026-T-106748	1,250

Table 1. Detailed Listing of HRSD SSOs

(April 1 – June 30, 2026)

Date and Time of Incident	Location	Sewer System Component	Potential Receiving Waters	Spilled In Jurisdiction	SSO Classification	Description of Incident from SSORS	SSO Duration	Action Taken and Explanation of SSO	Discharge Quantity (gallons)**	Amount Reaching State Waters (gallons)**	DEQ IR	Force Majeure Rationale or Stipulated Penalty
05/06/2026 10:50AM	Near 4701 E Virginia Beach Boulevard	E. Virginia Beach Boulevard Riser / Valve (SF-091)	Elizabeth River	Norfolk	Infrastructure	HRSD was notified of wastewater sporadically bubbling up from beneath the sidewalk adjacent to a system riser/valve. Approximately 375 gallons of wastewater was released. The spill has periodically continued to release but has been collected by a sump in place that drains to a City of Norfolk manhole. A final volume will be updated upon repair.	4 hour(s) 40 minute(s)	A sump was installed to recover lost flow and send it to a nearby City of Norfolk manhole. An investigation by HRSD staff found that the City of Norfolk or a private business has a large break in a line, with visible water releasing. It is believed that this is the possible source of the water at the HRSD asset. HRSD staff closed a connection valve at the City/Private owner spill location, which appeared to stop the release at the HRSD asset. Further investigation by the City of Norfolk and HRSD will be conducted to determine the problem and source. -----May 6, 2026 10:22 PM----- It was determined the morning of 5/7/26 that the spill had started to flow again despite the valve having been closed, and that HRSD and the City of Norfolk had two separate sanitary sewer breaks near each other. The sump that had been put in place was able to collect all spilled water. HRSD was also able to collect the 375 gallons initially spilled. The contractor working on repairs for the City of Norfolk spill will be	375	0	SSORS#2026-T-106748	0

Table 1. Detailed Listing of HRSD SSOs

(April 1 – June 30, 2026)

Date and Time of Incident	Location	Sewer System Component	Potential Receiving Waters	Spilled In Jurisdiction	SSO Classification	Description of Incident from SSORS	SSO Duration	Action Taken and Explanation of SSO	Discharge Quantity (gallons)**	Amount Reaching State Waters (gallons)**	DEQ IR	Force Majeure Rationale or Stipulated Penalty
								assisting in excavation and repairs of the HRSD asset starting Monday, 5/11/26. HRSD expects to have no volume lost at the time repairs are complete. -----May 10, 2026 09:05 PM--- Repairs were completed on the damaged section of pipe on 5/13/26. Contractors discovered a failed sleeve fitting on the 1995 era ductile iron pipe, similar to the simultaneous failure that occurred on the Norfolk pipe, roughly 150 feet down the road. Contractors replaced two fittings and approximately 10 feet of pipe. HRSD recovered all released water during this event. -----May 15, 2026 09:09 AM--				

Table 2. Detailed Listing of HRSD Treatment Plant Unusual Discharges

(April 1 – June 30, 2026)

Date	Location	Description/Cause	Duration of Event (min)	Corrective Action	Estimated Quantity Discharged (gallons)	Estimated Quantity to State Waters (gallons)	Type of Overflow	Receiving Water	Force Majeure Rationale Or Stipulated Penalty
4/1/2026	Nansemond	During the SWIFT Quarterly shutdown, the Drain Pump station that was receiving flow from the SWIFT process tanks overfilled due to pumps tripping out. The spill stopped once pumps were reset and began pumping. An investigation determined the spill occurred at 13:03 and ended at 14:03, when the operator noticed the water spilling to the ground. An estimated 4,000 gallons were spilled, and ~3,500 gallons were recovered by maintenance staff. Approximately 500 gallons were lost to run-off and soil absorption.	0	Once the drain well was identified as overflowing, pumps were reset, brought back online, and began bringing the well down. Maintenance responded immediately and captured all they could with a vac trailer.	4000	500	SWIFT Process Water	Ground	$750
4/7/2026	Nansemond	While attempting to prime the influent pumps to send water to the HRSD SWIFT facility, a small leak occurred at the check valve, causing approximately 50 gallons of secondary clarifier effluent (SCE) to spill on the ground.	45	Staff closed the check valve to stop the spill.	50	50	Secondary Clarifying Effluent (SCE)	Ground	$100
4/13/2026	Army Base	4inch NPW branch line for Odor control A process broke causing a spill.	6	Valve was closed to secure NPW line until repairs could be made.	1000	1000	Non-Potable Water (NPW)	Ground, Storm Drain	NPW
4/23/2026	Nansemond	Contractors were operating a diesel pump to pump down a Return Activated Sludge (RAS) line during a shutdown when the hose broke free from the receiving tank and spilled RAS on the ground.	5	The contractors secured the pump and put dirt down to absorb any spilled RAS liquid. Plant staff used a vac trailer to recover as much spill volume as possible. Dirt was removed and disposed of appropriately.	4500	3750	Return Activated Sludge (RAS)	Ground	$1,250
5/27/2026	Nansemond	The centrifuge hopper filled up with sludge and spilled in the truck bay. The bay could not handle the flow, and approximately 500 gallons of feed sludge spilled into the storm drain outside of the truck bay. The flow was captured in a retention pond.	8	Operators secured the centrifuge feed flow and on call staff cleaned up the road and storm drain. Plant staff was able to pump out the retention pond to completely to capture entire spill.	500	0	Centrifuge feed sludge	Storm drain to retention pond	N/A
5/28/2026	Nansemond	Contractors removed a cap on a fire hydrant that was under pressure, and the mechanism was broken in the fully open position. The hydrant was tagged out of service, but the label went missing. Ultimately, this resulted in an unrecoverable spill of approximately 1,000 gallons of Non-Potable Water (NPW).	10	Contractors closed valves in the in-ground plant NPW loop securing NPW flow to the hydrant and replaced the cap.	1000	1000	Non-Potable Water (NPW)	Ground	NPW
6/3/2026	Nansemond	While contractors were stress testing a temporary Secondary Clarifier Effluent (SCE) flow control structure bypass pumping system, non-potable water (NPW) leaked to the ground from flanges across High Density Polyethylene (HDPE) piping. Approximately 500 gallons of NPW were lost.	30	Contractors shut off the pumps to stop the flow and leak.	500	500	Non-Potable Water (NPW)	Ground	NPW
6/9/2026	Nansemond	Power was secured to the SWIFT Research Center for a planned shutdown, when power was reestablished, the drain pump station pumps did not get switched back to auto. The drain well began to fill with Non-Potable water (NPW) from the ozone cooling loop and ultimately overflowed, resulting in a spill of approximately 100 gallons of NPW.	3	Plant staff placed drain pumps into auto, and pumped down the drain well.	100	100	Non-Potable Water (NPW)	Ground	NPW

Table 2. Detailed Listing of HRSD Treatment Plant Unusual Discharges (April 1 – June 30, 2026)									
6/10/2026	Army Base	Sodium Hypochlorite was discovered at the flange suction side of the Sodium Hypochlorite storage tank. The leak had pressurized and sprayed over the side of the containment wall onto the ground(Soil).	90	Maintenance made the repair to flange securing the leak.	25	25	Sodium Hypochlorite	Ground	$100

Note: NPW (non-potable water) is fully treated and chlorinated final effluent.

Appendix A. Post-Storm Synopses Reports

There were two (2) qualifying events this quarter.

Appendix B. Definitions

"Bypass" shall mean the intentional diversion of waste streams from any portion of a treatment facility, as defined by 40 C.F.R. § 122.41(m).

"HRSD SS System" or "HRSD Sanitary Sewer System" shall mean the wastewater collection and transmission systems, including all pipes, Force Mains, Gravity Sewer Lines, lift stations, Pumping Stations, Pressure Reducing Stations, manholes, and any other appurtenances thereto, which are owned or operated by HRSD as of the Effective Date of this Consent Decree, and which serve the Localities. It does not include the portions of the sewer system that serves the Middle Peninsula communities within King William County, King and Queen County, Middlesex County, and Mathews County.

"Non-potable water (NPW)" is fully treated and chlorinated final effluent.

"Prohibited Bypass" shall mean a Bypass within the meaning of 40 C.F.R § 122.41(m)(4).

"Sanitary Sewer Overflow" or "SSO" shall mean an overflow, spill, diversion, or release of wastewater from or caused by the Regional SS System. This term shall include: (i) discharges to waters of the State or United States from the Regional SS System and (ii) any release of wastewater from the Regional SS System to public or private property that does not reach waters of the United States or the State, including Building/Private Property Backups.

"Sanitary Sewer Discharge" or "SSD" shall mean any discharge to waters of the State or the United States from the HRSD SS System through a point source not authorized in any Permit.

Hampton Roads Sanitation District

Post-Storm Report

May 21st - 28th, 2026

HRSD
Sustainable, Innovative Wastewater Treatment

DISCLAIMER:

About the information on this HRSD server

This report is intended to provide the HRSD regional community summary information about the HRSD system during select wet weather events/anomalies. The attached report contains a selection of *official* Interceptor and Treatment data, as well as other environmental and meteorological data provided through other services. In an effort to enhance the HRSD system, the attached products have been made accessible on this server and care must be taken when using such products as they are intended for informational and not operational, legal, or other purposes.

This report is located on an HRSD server and is intended to be available 24 hours a day, seven days a week. However, timely availability and/or delivery of data and products from this server through the Internet is subject to numerous potential constraints and is, therefore, not guaranteed. Official HRSD dissemination of information is available only through a written response to a formal written request for data from the user.

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Summary

From May 21st through May 28th, there was an approximate 166-hour rainfall event that resulted in 5 sites on the North Shore that met a 1 to 10-year rainfall recurrence interval throughout the HRSD rain gauge network. A cold front moved through and then stalled just south of the area which brought cooler temperatures and rain with it. A cool front then came down and merged with the stationary front which along with high moisture in the region caused heavy downpours especially in the peninsulas with reports of flash flood warnings. Finally, a warm front developed pushing north through the region which caused a few scattered showers followed by a cool dry front coming south pushing the rain and moisture out of the area. North Shore sites averaged around 2.55 inches of rain. There was minimal impact on groundwater levels compared to May 2025. See Appendix C for the Historical Shallow Well comparison. See Appendix D for approximate SSO locations. This report will be for North Shore only.

4 Locality interceptor weather-related overflow(s) were reported

HRSD flow and pressure meters met data reliability requirements per the MOM program. For all pressure meters in the aggregate and all pressure-side flow meters in the aggregate for each treatment plant service area listed below, at least 90% reliable data was achieved, based on the duration of system response to this rainfall event. The data reliability for the gravity flow meters is not included in this synopsis.

- Duration of system response: See Table Below
- Aggregate flow meter validity: 93.00%
- Aggregate pressure meter validity: 97.21%

Currently, rainfall recurrence intervals are only analyzed for a maximum of 96-hours. Rainfall analysis begins after 0.1 inches of rain has occurred. A 72-hour dry period of less than 0.1 inches of rain is typically used to signify two separate events. However, if a site returns to "dry weather" conditions prior to the next rainfall that occurs within 72 hours of the previous event, it is also considered for separate analysis. See Appendix A for the Rainfall Total System Maps.

The current criteria for publishing a post-storm analysis are the following:

- One or more rain gauge sites meet a two-year or greater RRI (rainfall recurrence interval) and at least 50% of sites in any treatment plant service area receive one inch of rainfall or greater,
- A rain gauge site meets a five-year or greater RRI, or
- A weather-related SSO occurs.

Sanitary Sewer Overflows:

Localities

Location	Jurisdiction	Start Date
8794 Six Mount Zion Rd	James City	5/25/2026
115 Depot St	James City	5/25/2026
5439 Rockingham Dr	James City	5/25/2026
174 Forest Heights Rd	James City	5/25/2026

Treatment Plant Data: *(Data obtained from Telog Database)*
See Appendix B for HRSD Treatment Plant Flows

HRSD Treatment Plant Data
5/21/2026 – 5/28/2026

North Shore				
Treatment Plant	**Date of Peak Hourly Flow**	**Peak Hourly Flow (MGD)**	**Peak Hour**	**TPSA Total Rainfall Avg (in)**
Boat Harbor	5/21/2026	9.93	22:00	0.00
	5/22/2026	9.86	12:00	0.00
	5/23/2026	10.51	14:00	0.14
	5/24/2026	10.02	16:00	0.01
	5/25/2026	12.99	18:00	0.35
	5/26/2026	11.42	22:00	0.04
	5/27/2026	18.20	21:00	0.90
	5/28/2026	14.45	00:00	0.03
James River	5/21/2026	13.85	21:00	0.00
	5/22/2026	12.86	20:00	0.00
	5/23/2026	14.56	11:00	0.12
	5/24/2026	14.06	12:00	0.01
	5/25/2026	32.46	19:00	1.09
	5/26/2026	16.28	21:00	0.09
	5/27/2026	18.81	21:00	0.57
	5/28/2026	13.31	08:00	0.00
Williamsburg	5/21/2026	9.73	21:00	0.00
	5/22/2026	10.45	09:00	0.30
	5/23/2026	12.88	11:00	0.40
	5/24/2026	11.03	11:00	0.01
	5/25/2026	22.50	19:00	3.23
	5/26/2026	12.90	00:00	0.19
	5/27/2026	14.32	21:00	0.30
	5/28/2026	11.79	09:00	0.00

Treatment Plant	Date of Peak Hourly Flow	Peak Hourly Flow (MGD)	Peak Hour	TPSA Total Rainfall Avg (in)
York River	5/21/2026	10.73	20:00	0.00
	5/22/2026	10.62	13:00	0.07
	5/23/2026	10.79	12:00	0.28
	5/24/2026	10.42	14:00	0.01
	5/25/2026	20.09	16:00	2.01
	5/26/2026	14.22	06:00	0.13
	5/27/2026	14.85	19:00	0.35
	5/28/2026	13.86	06:00	0.01

North Shore

Weather:

Rainfall (HRSD Rainfall Gauges): *Recurrence intervals based on NOAA Atlas 14*

Rain Gauge Site	Peak Rainfall RI (Duration)	Locality
Boat Harbor Treatment Plant Service Area[1]		
Bayshore PS	DNQ	HAMP
Bridge Street Tide Gate	DNQ	HAMP
Boat Harbor	DNQ	NEWP
Copeland Park PS	Invalid	NEWP
Hampton PS 159	Invalid	HAMP
Willard Ave PS Odor Station	DNQ	NEWP
James River Treatment Plant Service Area[1]		
Hilton School PS	DNQ	NEWP
James River Main Flow (Influent)	DNQ	NEWP
Lee Hall PRS	DNQ	NEWP
Lucas Creek PS	Disconnected	NEWP
Morrison PS	DNQ	NEWP
Williamsburg Treatment Plant Service Area[1]		
Ford's Colony	1- to 2-year (36hr)	JCSA
Fort Eustis PS	DNQ	NEWP
Greensprings PS	DNQ	JCA
Solarex	5- to 10-year (36hr)	JCSA
Williamsburg Main Flow (Effluent)	Invalid	JCSA
Williamsburg PS	Invalid	WILL
York Skimino Hills PS	5- to 10-year (36hr)	YORK
York River Treatment Plant Service Area[1]		
Big Bethel PRS	Disconnected	HAMP
Big Bethel at Belgrade	DNQ	HAMP
Freeman PS	DNQ	HAMP
Gloucester Court House	DNQ	GLOU
Guinea Rd at Maryus Rd	DNQ	GLOU
Ordinary PCV	DNQ	GLOU
Poquoson PS 6	DNQ	POQ
Wolf Trappe PCV	1-year (36hr)	YORK
York Kiln Creek 1 PS	DNQ	YORK
York PS 15	Invalid	YORK
York River Main Flow (Influent)	2-year (36hr)	YORK
York River Crossing (York River Rectifier)	DNQ	GLOU

Note:

1. Typical treatment plant service area.

Newport News-Williamsburg International (PHF)

- Wind and Rainfall (daily total):

Date	Gust (max)	Sustained (max)	Sustained (avg)	Direction	Rainfall (in)
05/21/2026	31 mph	23 mph	10 mph	NE	0.00
05/22/2026	23 mph	15 mph	9 mph	NE	0.01
05/23/2026	17 mph	13 mph	7 mph	NE	0.20
05/24/2026	-	8 mph	4 mph	NE	0.00
05/25/2026	21 mph	14 mph	5 mph	W	3.02
05/26/2026	-	14 mph	6 mph	E	0.15
05/27/2026	28 mph	18 mph	9 mph	SW	0.57
05/28/2026	30 mph	16 mph	7 mph	NW	0.00

Tide:

- Yorktown USCG Training Center:
  - Storm Surge: An approximate 1.13-foot storm surge was observed.

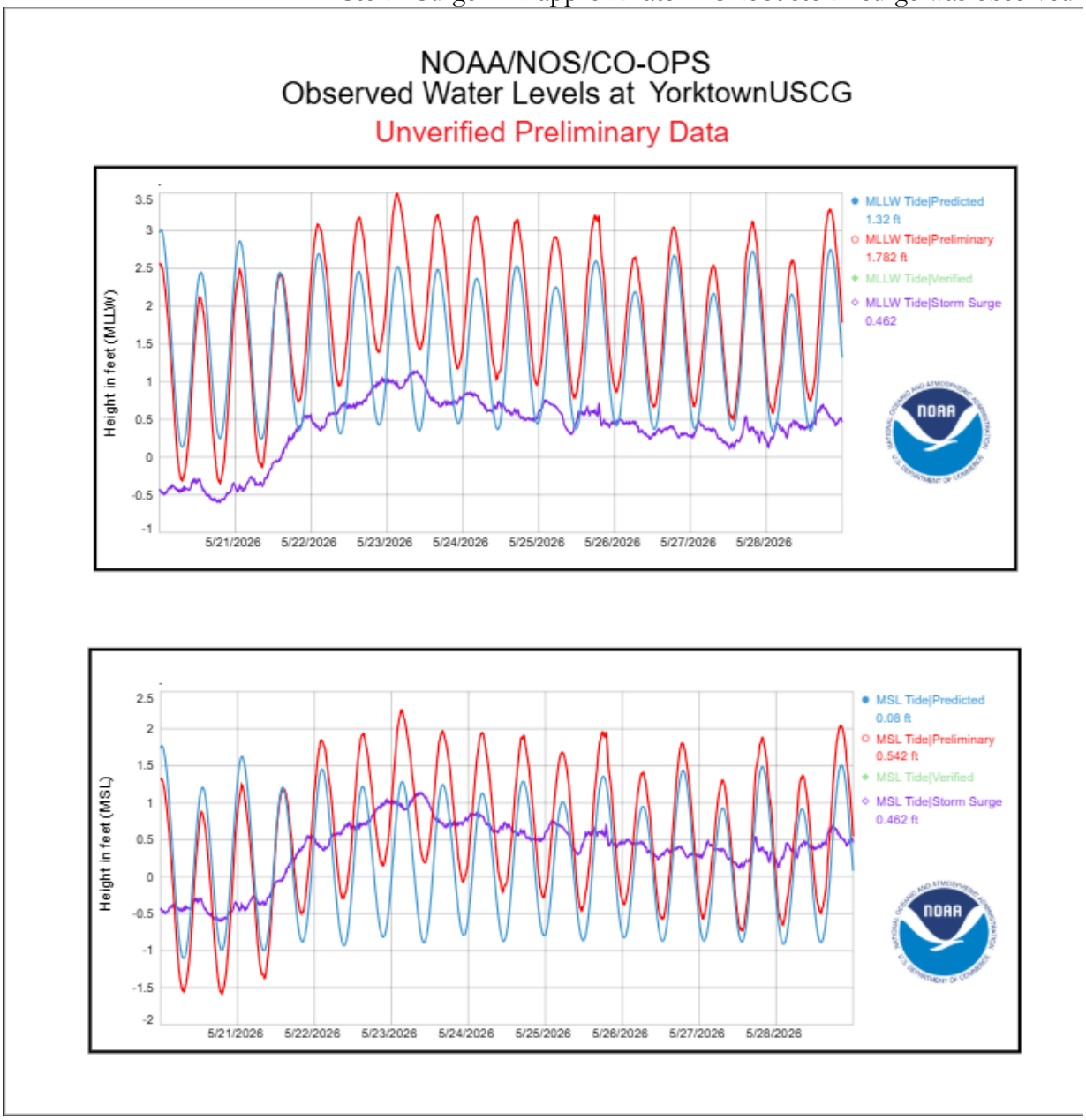


Figure 1. Preliminary data obtained from NOAA and a connection with Open Weather

- Sewells Point Tide Station:
  - Storm Surge: An approximate 1.31 foot storm surge was observed.

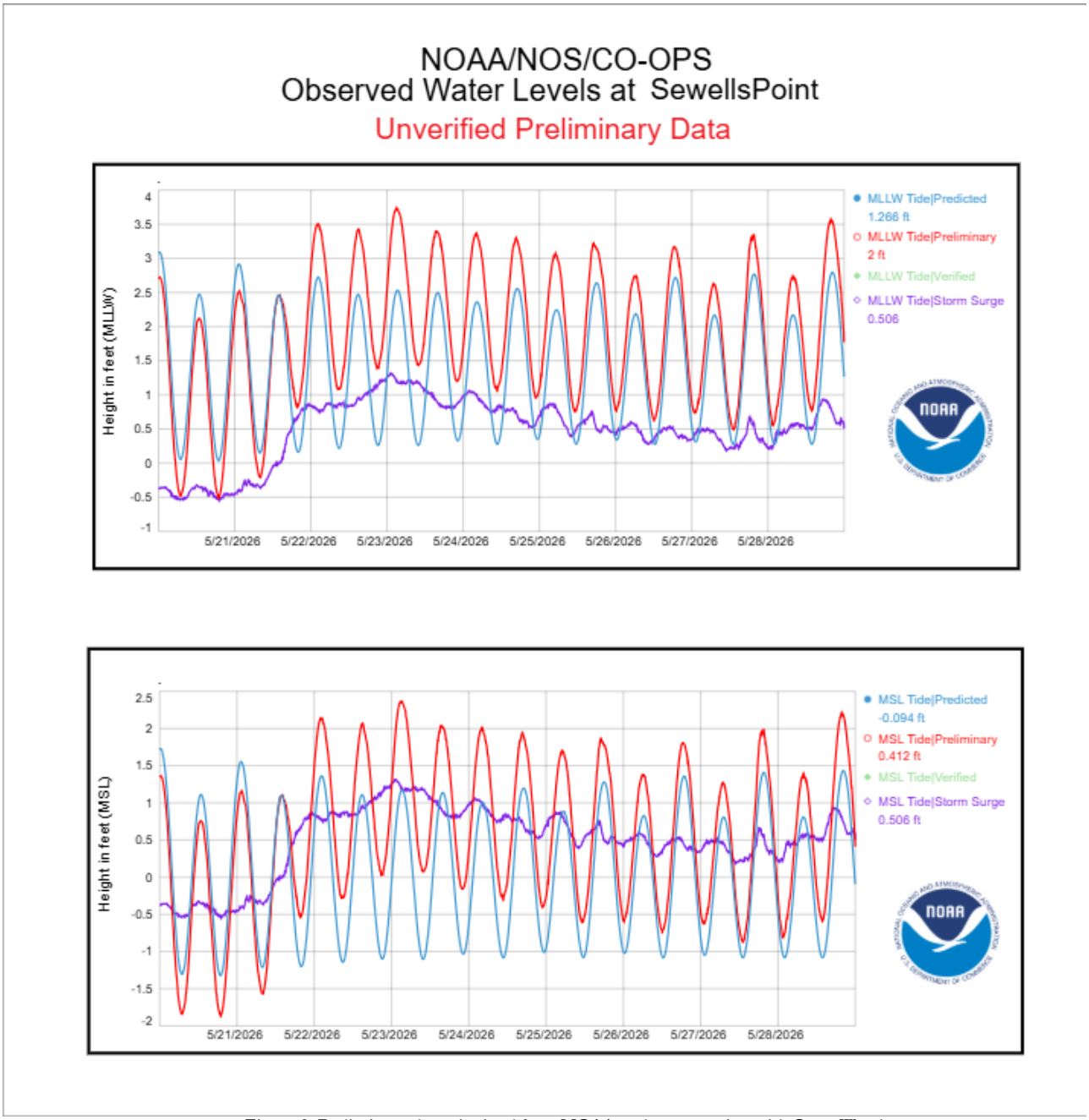
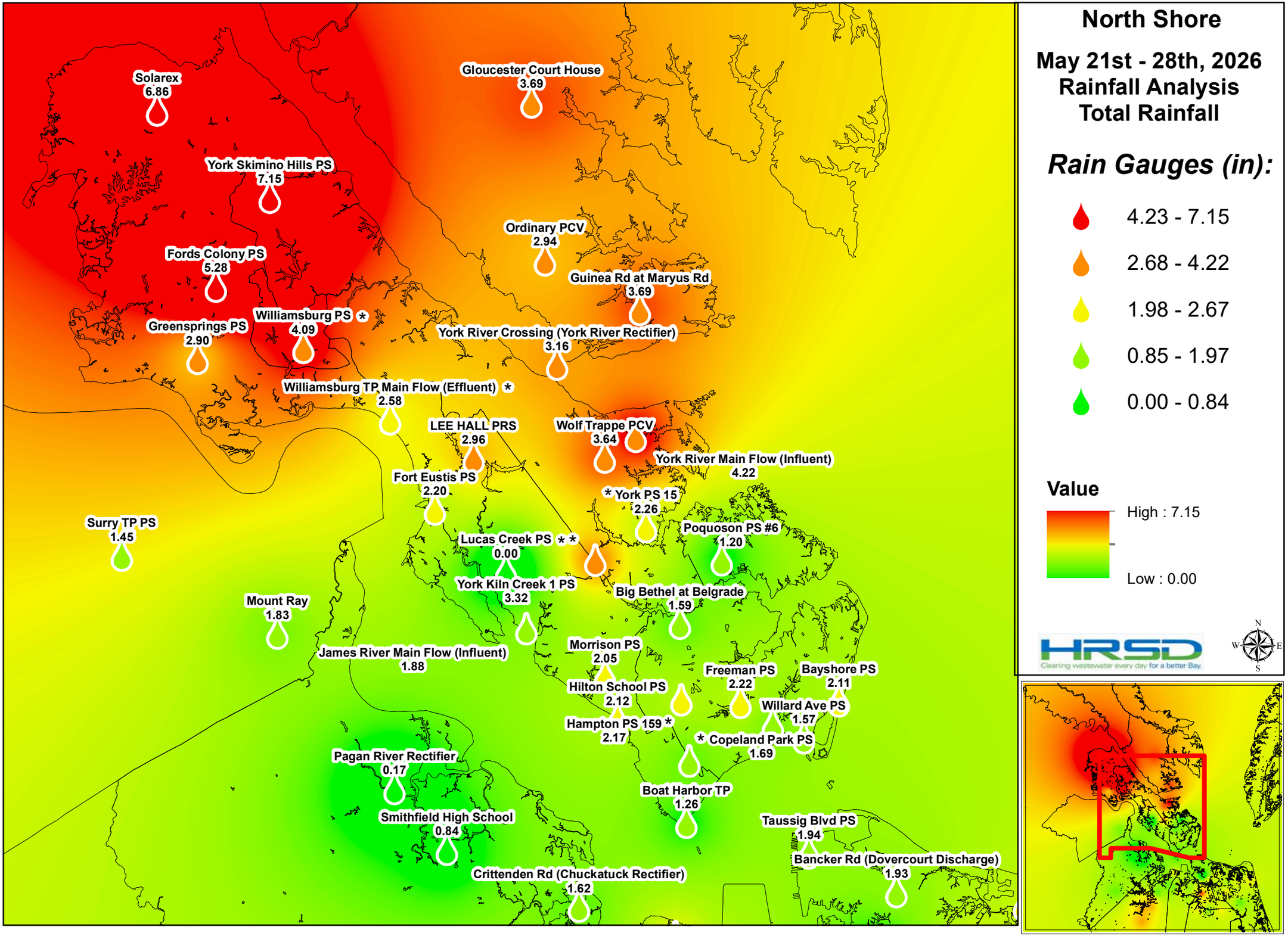


Figure 2. Preliminary data obtained from NOAA and a connection with Open Weather

Appendix A

HRSD Rain Gauge Network
Rainfall Totals



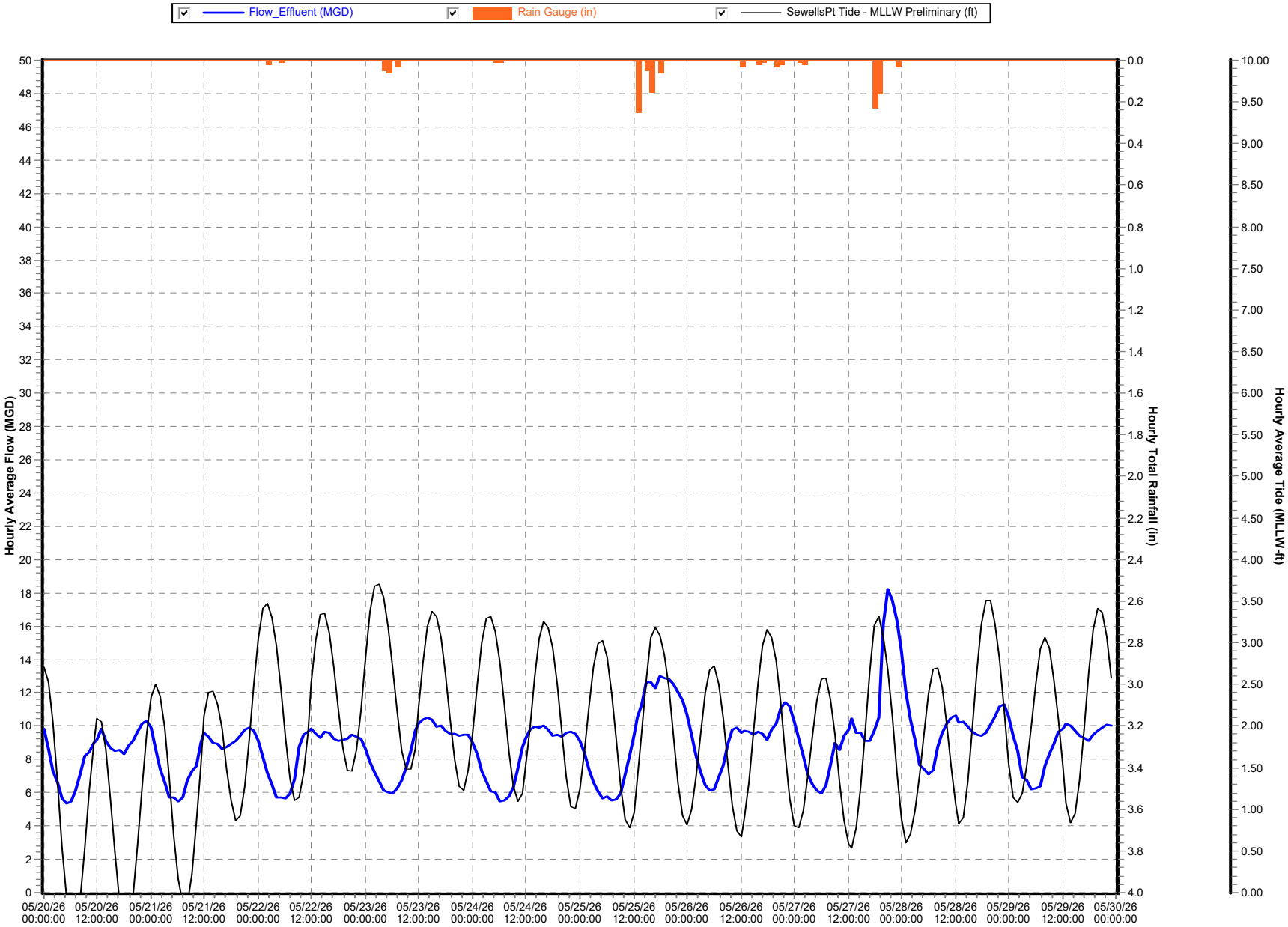
*Note: Rain Gauge was invalid for event and an average of surrounding sites was used. **Rain Gauge disconnected during event. ***Data from NOAA used

Appendix B

HRSD Treatment Plant Flows

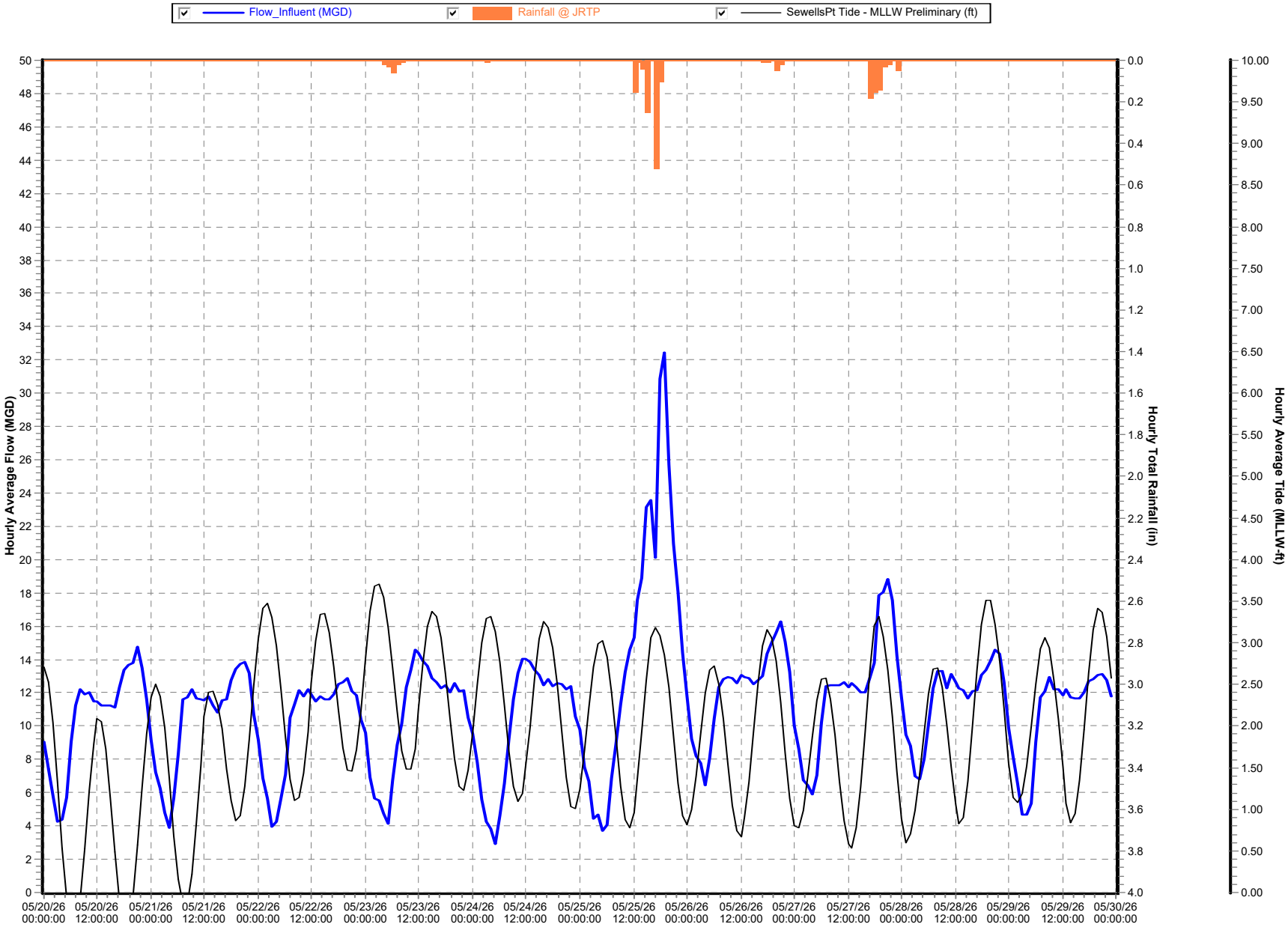
Boat Harbor Treatment Plant

MMPS-075 (05/20/26 to 05/30/26)



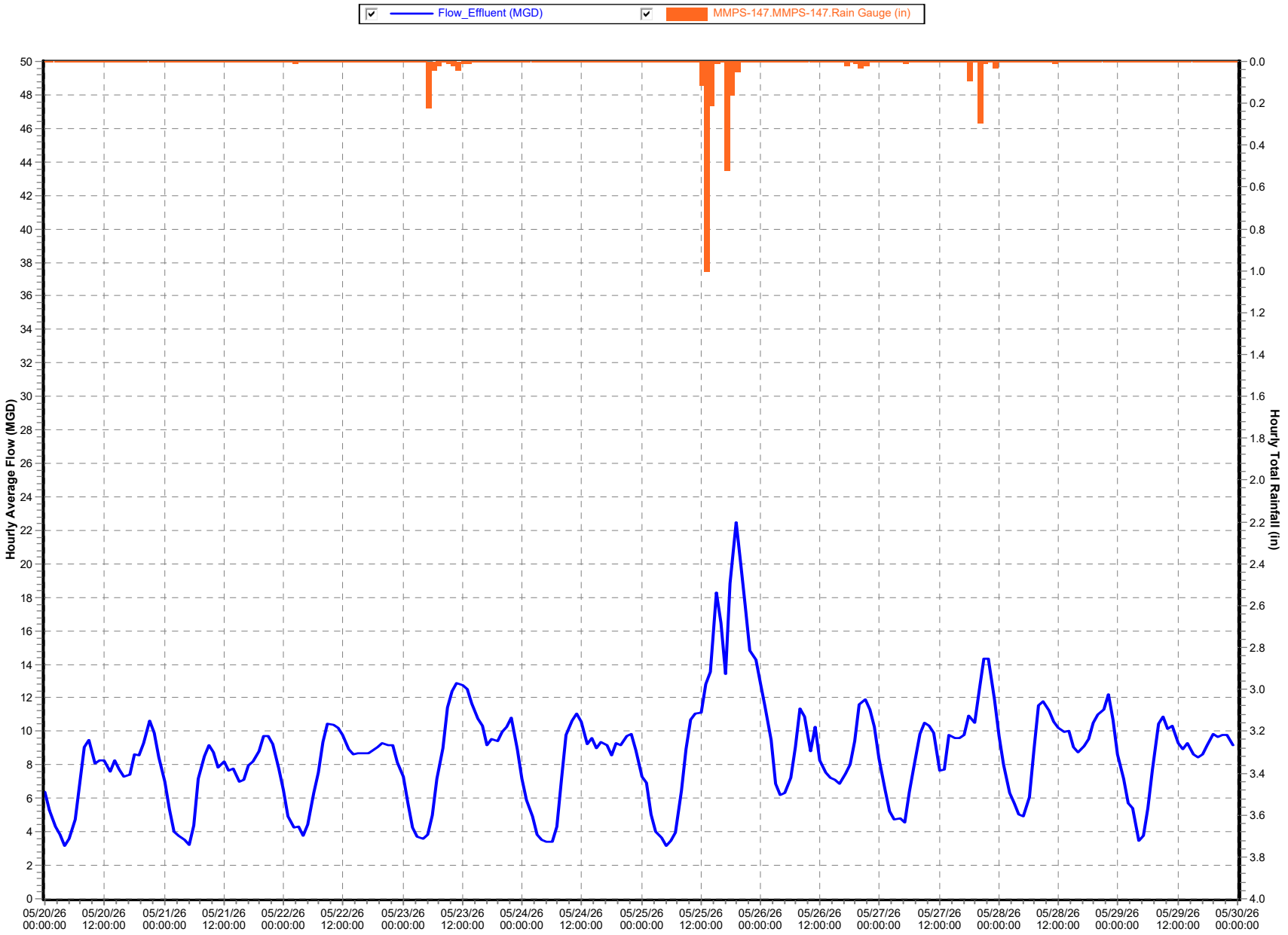
James River Treatment Plant

MMPS-184 (05/20/26 to 05/30/26)



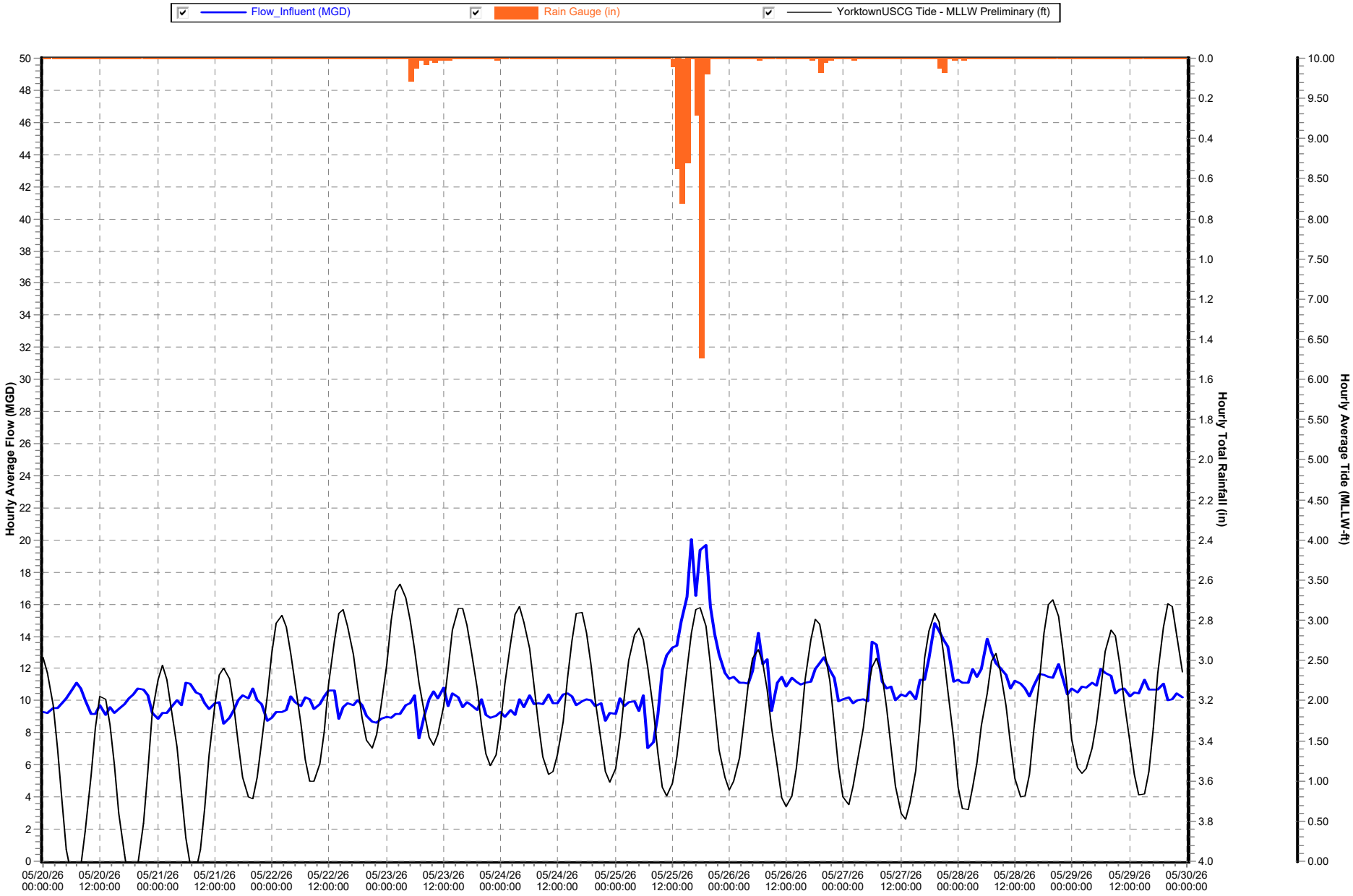
Williamsburg Treatment Plant

MMPS-222 (05/20/26 to 05/30/26)



York River Treatment Plant

MMPS-235 (05/20/26 to 05/30/26)



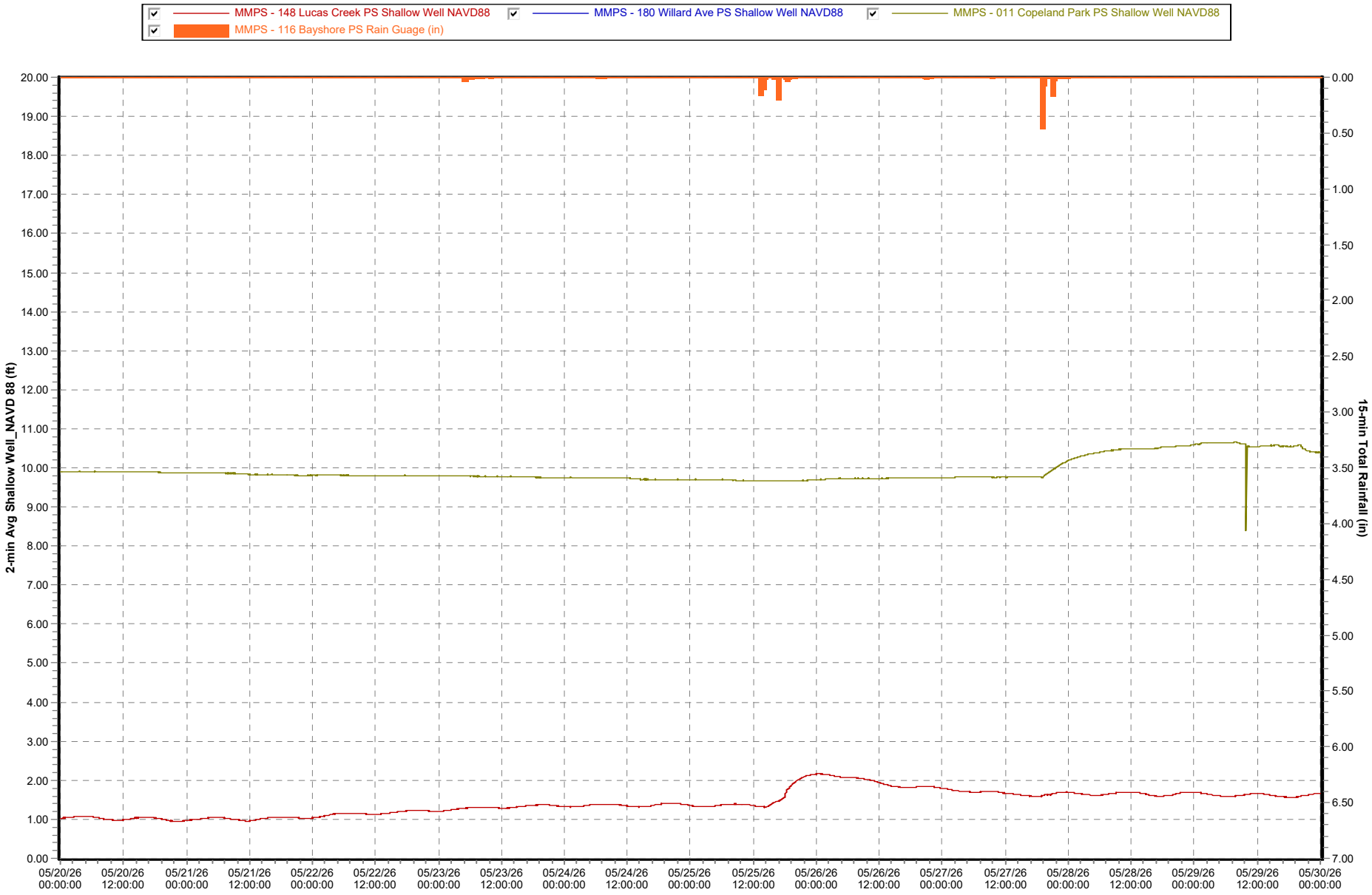
Appendix C

Shallow Well Analysis

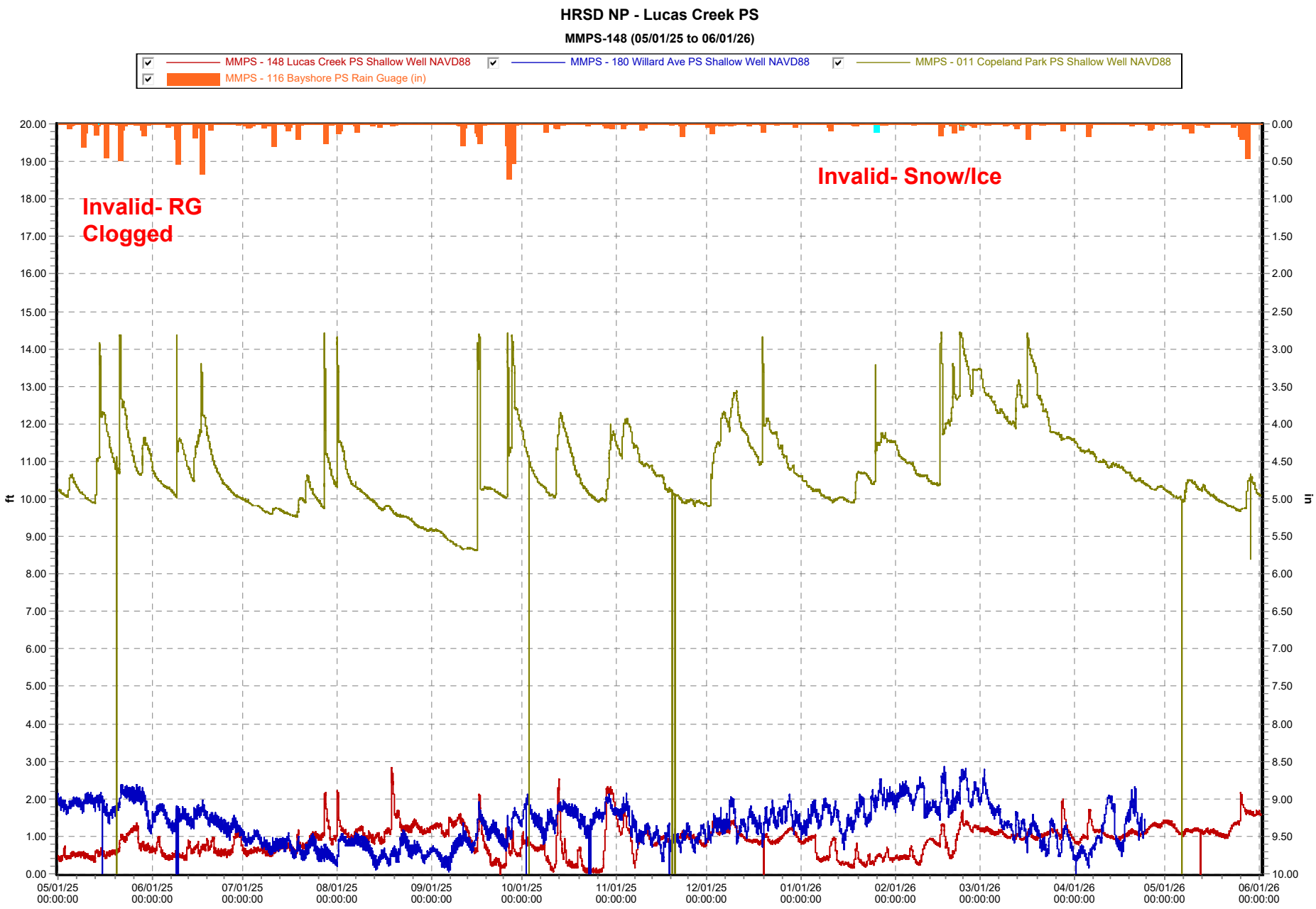
10 Day

North Shore Shallow Well Graphs

05/20/26 to 05/30/26



1 Year


HRSD NP - Lucas Creek PS
MMPS-148 (05/01/25 to 06/01/26)
MMPS - 148 Lucas Creek PS Shallow Well NAVD88
MMPS - 180 Willard Ave PS Shallow Well NAVD88
MMPS - 011 Copeland Park PS Shallow Well NAVD88
MMPS - 116 Bayshore PS Rain Guage (in)
Invalid- RG Clogged
Invalid- Snow/Ice
ft
in
20.00
19.00
18.00
17.00
16.00
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14.00
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09/01/25 00:00:00
10/01/25 00:00:00
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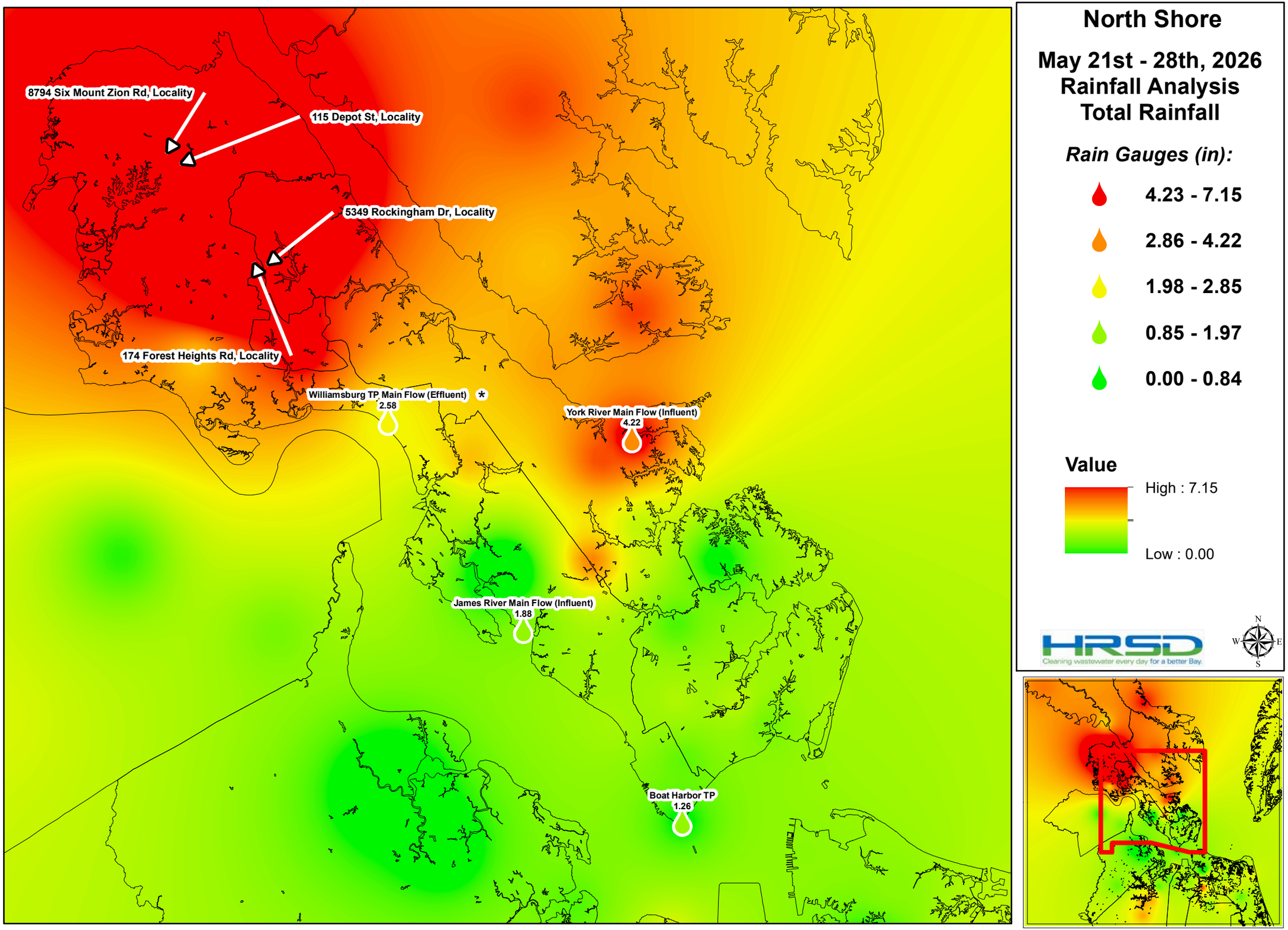
03/01/26 00:00:00
04/01/26 00:00:00
05/01/26 00:00:00
06/01/26 00:00:00

Appendix D

SSO Map



*Note: Rain Gauge was invalid for event and an average of surrounding sites was used. **Rain Gauge disconnected during event

Hampton Roads Sanitation District

Post-Storm Report

June 22nd - 23rd, 2026

HRSD
Sustainable, Innovative Wastewater Treatment

DISCLAIMER:

About the information on this HRSD server

This report is intended to provide the HRSD regional community summary information about the HRSD system during select wet weather events/anomalies. The attached report contains a selection of *official* Interceptor and Treatment data, as well as other environmental and meteorological data provided through other services. In an effort to enhance the HRSD system, the attached products have been made accessible on this server and care must be taken when using such products as they are intended for informational and not operational, legal, or other purposes.

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Summary

From June 22nd through June 23rd, there was an approximate 21-hour rainfall event that resulted in 4 sites on the North Shore and 16 sites on the South Shore that met a 1 to 5-year rainfall recurrence interval throughout the HRSD rain gauge network. A warm front passed north of the area and the region saw an increase in humidity and heat. The heat index climbed to over 100 degrees with isolated showers scattered throughout. Overnight and into the next day there were large areas of rain and thunderstorms moving through the area. There were reports of flooding on the southside but also the rain helped alleviate some drought conditions the area had been going through. North Shore sites averaged around 1.79 inches of rain while South Shore sites averaged around 1.91 inches. There was noticeable impact on groundwater levels compared to June 2025. See Appendix C for the Historical Shallow Well comparison.

HRSD flow and pressure meters met data reliability requirements per the MOM program. For all pressure meters in the aggregate and all pressure-side flow meters in the aggregate for each treatment plant service area listed below, at least 88% reliable data was achieved, based on the duration of system response to this rainfall event. The data reliability for the gravity flow meters is not included in this synopsis.

- Duration of system response: See Table Below
- Aggregate flow meter validity: 88.62%
- Aggregate pressure meter validity: 98.42%

Currently, rainfall recurrence intervals are only analyzed for a maximum of 96-hours. Rainfall analysis begins after 0.1 inches of rain has occurred. A 72-hour dry period of less than 0.1 inches of rain is typically used to signify two separate events. However, if a site returns to "dry weather" conditions prior to the next rainfall that occurs within 72 hours of the previous event, it is also considered for separate analysis. See Appendix A for the Rainfall Total System Maps.

The current criteria for publishing a post-storm analysis are the following:

- One or more rain gauge sites meet a two-year or greater RRI (rainfall recurrence interval) and at least 50% of sites in any treatment plant service area receive one inch of rainfall or greater,
- A rain gauge site meets a five-year or greater RRI, or
- A weather-related SSO occurs.

Treatment Plant Data: *(Data obtained from Telog Database)*
See Appendix B for HRSD Treatment Plant Flows

HRSD Treatment Plant Data
6/22/2026 – 6/23/2026

North Shore				
Treatment Plant	**Date of Peak Hourly Flow**	**Peak Hourly Flow (MGD)**	**Peak Hour**	**TPSA Total Rainfall Avg (in)**
Boat Harbor	6/22/2026	12.86	23:00	0.98
	6/23/2026	18.51	00:00	0.30
James River	6/22/2026	24.62	23:00	0.97
	6/23/2026	19.73	00:00	0.60
Williamsburg	6/22/2026	22.78	22:00	1.31
	6/23/2026	22.42	15:00	0.97
York River	6/22/2026	14.64	23:00	1.12
	6/23/2026	13.92	17:00	1.12

HRSD Treatment Plant Data
6/22/2026 – 6/23/2026

South Shore				
Treatment Plant	**Date of Peak Hourly Flow**	**Peak Hourly Flow (MGD)**	**Peak Hour**	**TPSA Total Rainfall Avg (in)**
Army Base	6/22/2026	11.37	23:00	1.05
	6/23/2026	17.61	17:00	1.00
Atlantic	6/22/2026	59.71	21:00	0.88
	6/23/2026	99.47	17:00	1.76
Nansemond	6/22/2026	22.28	23:00	0.80
	6/23/2026	31.70	17:00	1.10
VIP	6/22/2026	28.21	23:00	0.96
	6/23/2026	58.05	17:00	1.77

North Shore

Weather:

Rainfall (HRSD Rainfall Gauges): *Recurrence intervals based on NOAA Atlas 14*

Rain Gauge Site	Peak Rainfall RI (Duration)	Locality
Boat Harbor Treatment Plant Service Area[1]		
Bayshore PS	DNQ	HAMP
Bridge Street Tide Gate	DNQ	HAMP
Boat Harbor	DNQ	NEWP
Copeland Park PS	DNQ	NEWP
Hampton PS 159	DNQ	HAMP
Willard Ave PS Odor Station	DNQ	NEWP
James River Treatment Plant Service Area[1]		
Hilton School PS	1-year (1hr)	NEWP
James River Main Flow (Influent)	DNQ	NEWP
Lee Hall PRS	DNQ	NEWP
Lucas Creek PS	Disconnected	NEWP
Morrison PS	DNQ	NEWP
Williamsburg Treatment Plant Service Area[1]		
Ford's Colony	DNQ	JCSA
Fort Eustis PS	DNQ	NEWP
Greensprings PS	DNQ	JCA
Solarex	DNQ	JCSA
Williamsburg Main Flow (Effluent)	DNQ	JCSA
Williamsburg PS	DNQ	WILL
York Skimino Hills PS	DNQ	YORK
York River Treatment Plant Service Area[1]		
Big Bethel PRS	Disconnected	HAMP
Big Bethel at Belgrade	DNQ	HAMP
Freeman PS	DNQ	HAMP
Gloucester Court House	DNQ	GLOU
Guinea Rd at Maryus Rd	1- to 2-year (1hr)	GLOU
Ordinary PCV	2- to 5-year (1hr)	GLOU
Poquoson PS 6	DNQ	POQ
Wolf Trappe PCV	DNQ	YORK
York Kiln Creek 1 PS	1-year (1hr)	YORK
York PS 15	DNQ	YORK
York River Main Flow (Influent)	DNQ	YORK
York River Crossing (York River Rectifier)	DNQ	GLOU

Note:

1. Typical treatment plant service area.

Newport News-Williamsburg International (PHF)

- Wind and Rainfall (daily total):

Date	Gust (max)	Sustained (max)	Sustained (avg)	Direction	Rainfall (in)
06/22/2026	46 mph	32 mph	11 mph	SW	1.16
06/23/2026	37 mph	13 mph	8 mph	W	1.10

Tide:

- Yorktown USCG Training Center:
  - Storm Surge: An approximate 1.09-foot storm surge was observed.

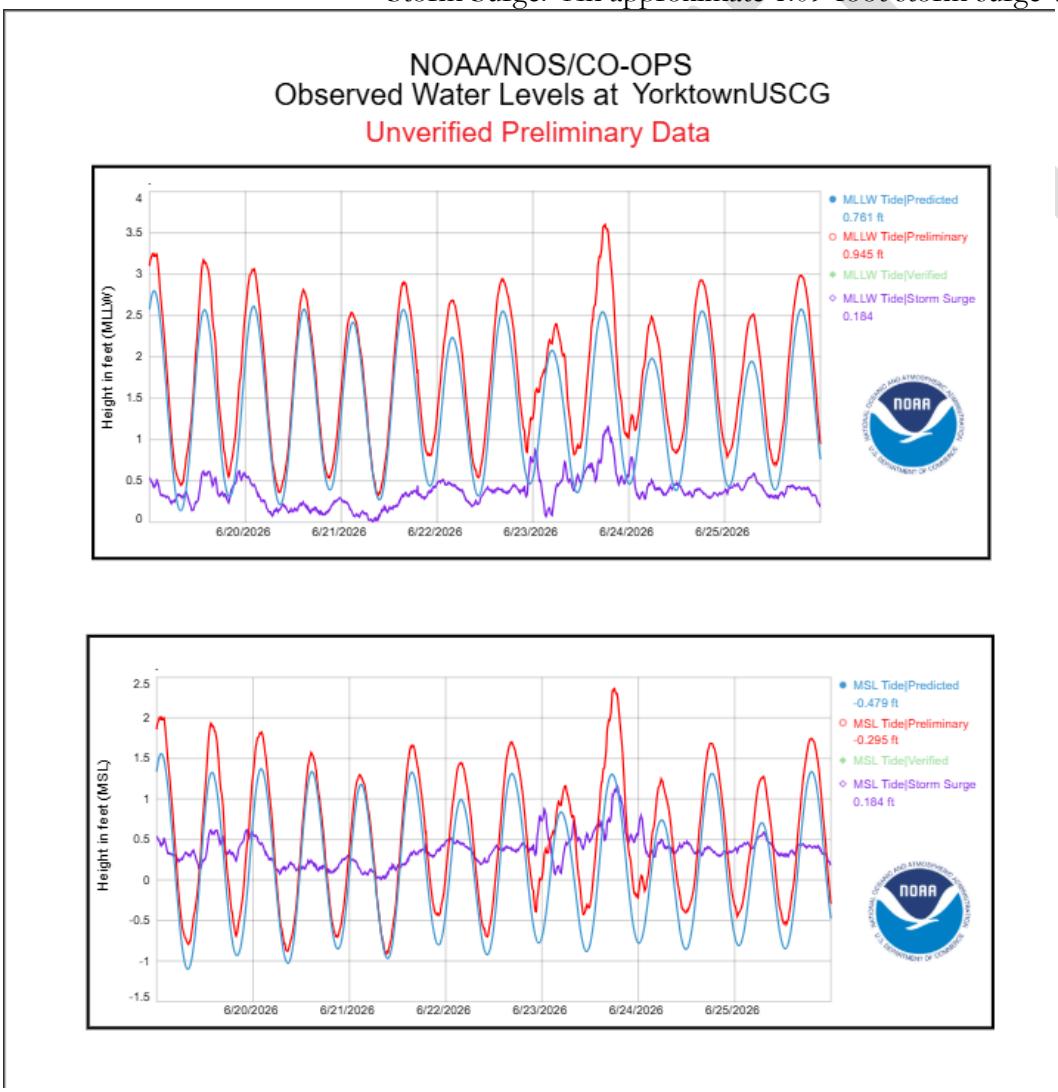


Figure 1. Preliminary data obtained from NOAA and a connection with Open Weather

- Sewells Point Tide Station:
  - Storm Surge: An approximate 1.20 foot storm surge was observed.

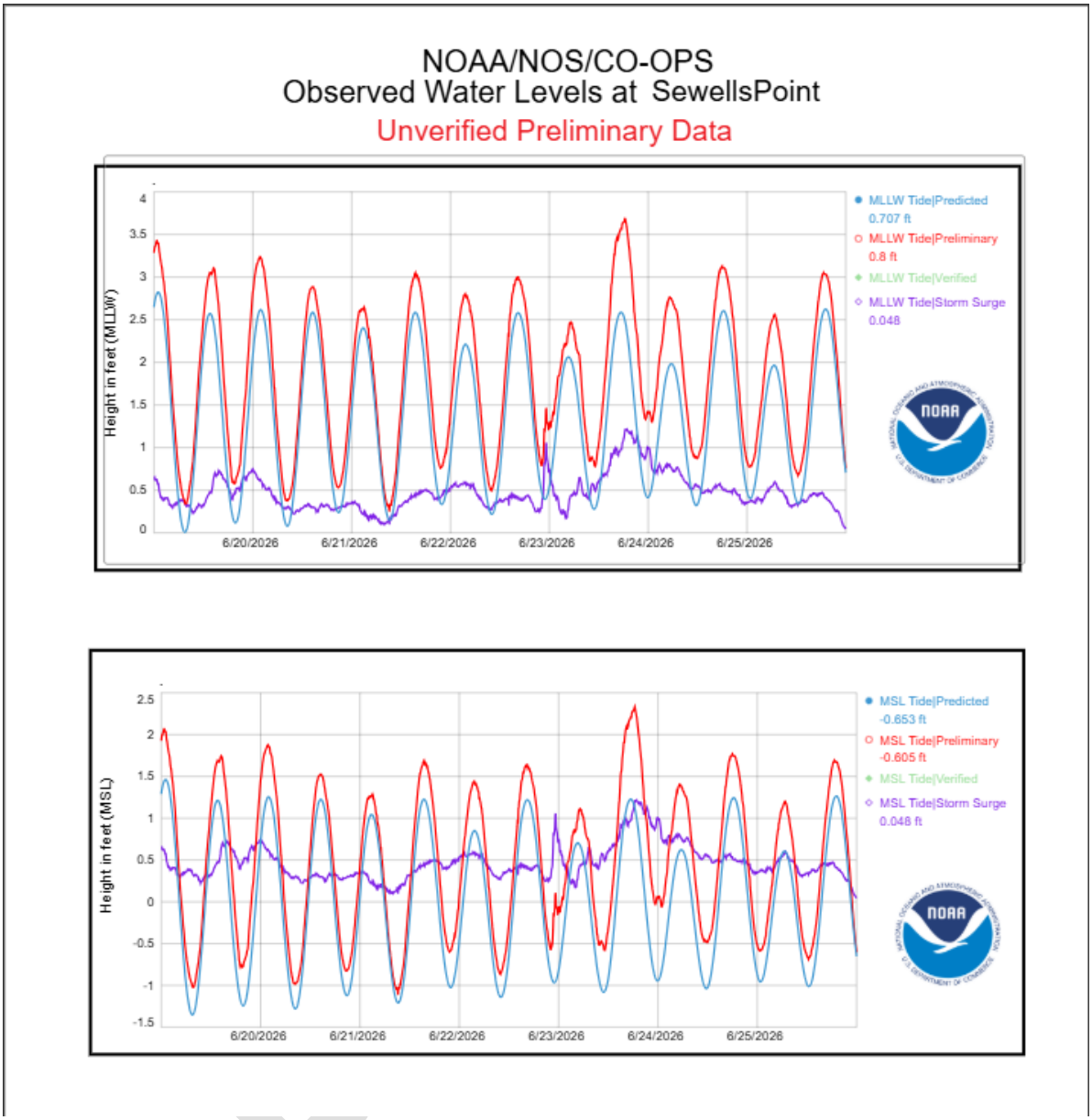


Figure 2. Preliminary data obtained from NOAA and a connection with Open Weather

South Shore

Weather:

Rainfall (HRSD Rainfall Gauges): *Recurrence intervals based on NOAA Atlas 14*

Rain Gauge Site	Peak Rainfall RI (Duration)	Locality
Army Base Treatment Plant Service Area[1]		
Bancker Rd (Dovercourt Discharge)	DNQ	NORF
Taussig Blvd PS	DNQ	NORF
Atlantic Treatment Plant Service Area[1]		
Callison at GB Locks	1-year (24hr)	CHES
Chesapeake PS 243	1-year (24hr)	CHES
Chesapeake PS 254	Disconnected	CHES
Courthouse PRS	DNQ	VAB
Elbow Rd PRS	1-year (1hr)	CHES
John B. Dey MLV-AT side	1-year (3hr)	VAB
Hickory EOL	1-year (24hr)	CHES
Kempsville PRS	DNQ	VAB
Lagomar IFM at Atlantic TP	DNQ	VAB
Laskin Rd PRS	DNQ	VAB
Pine Tree PRS	DNQ	VAB
Shipps Corner PRS	DNQ	VAB
Ches-Liz Treatment Plant Service Area[1]		
Dozier's Corner PS	1- to 2-year (1hr)	CHES
Independence PRS	DNQ	VAB
Northampton Blvd at Wesleyan Dr	1-year (2hr)	NORF
Providence PRS	DNQ	VAB
Shore Dr @ Jack Frost	1-year (2hr)	CHES
Nansemond Treatment Plant Service Area[1]		
Bowers Hill PRS	1-year (1hr)	CHES
Cedar Lane PS	DNQ	PORT
Cedar Rd at Dominon Blvd	1-year (24hr)	CHES
Chesapeake PS 20	DNQ	CHES
Chesapeake PS 238	Disconnected	CHES
Crittenden Rd_Chuckatuck Rectifier	DNQ	SUFF
Deep Creek PRS	2-year (1hr)	CHES
Hill Point Rectifier	DNQ	SUFF
Lake Kilby WTP	DNQ	SUFF
Nansemond Main Flow (Effluent)	DNQ	SUFF
Pagan River Rectifier	1-year (1hr)	IOW
Pughsville PS	DNQ	SUFF
Route 337 PRS	DNQ	CHES
Smithfield High School	1-year (1hr)	IOW
Suffolk PS	DNQ	SUFF
Suffolk PS 81	DNQ	SUFF
Suffolk PS 87	DNQ	SUFF

Rain Gauge Site	Peak Rainfall RI (Duration)	Locality
Windsor Duke St PS	Disconnected	IOW
Windsor EOL	DNQ	SUFF
VIP Treatment Plant Service Area[1]		
Elizabeth River Crossing_Eastern Branch	2- to 5-year (3hr)	NORF
Ferebee Avenue PS	1- to 2-year (1hr)	CHES
Luxembourg Avenue PS	Disconnected	NORF
Rodman Ave PS	DNQ	PORT
Va Beach Blvd PS	1- to 2-year (3hr)	NORF
VIP Main Flow (Effluent)	DNQ	NORF

Note:

1. Typical treatment plant service area.

*Duration represents the minimum amount of time it took to reach the specified RRI.

Norfolk International Airport (ORF)

- Wind and Rainfall (daily total):

Date	Gust (max)	Sustained (max)	Sustained (avg)	Direction	Rainfall (in)
06/22/2026	31 mph	21 mph	13 mph	SW	1.10
06/23/2026	35 mph	23 mph	11 mph	N	2.19

Tide:

- Sewells Point Tide Station:
  - Storm Surge: An approximate 1.20 foot storm surge was observed.

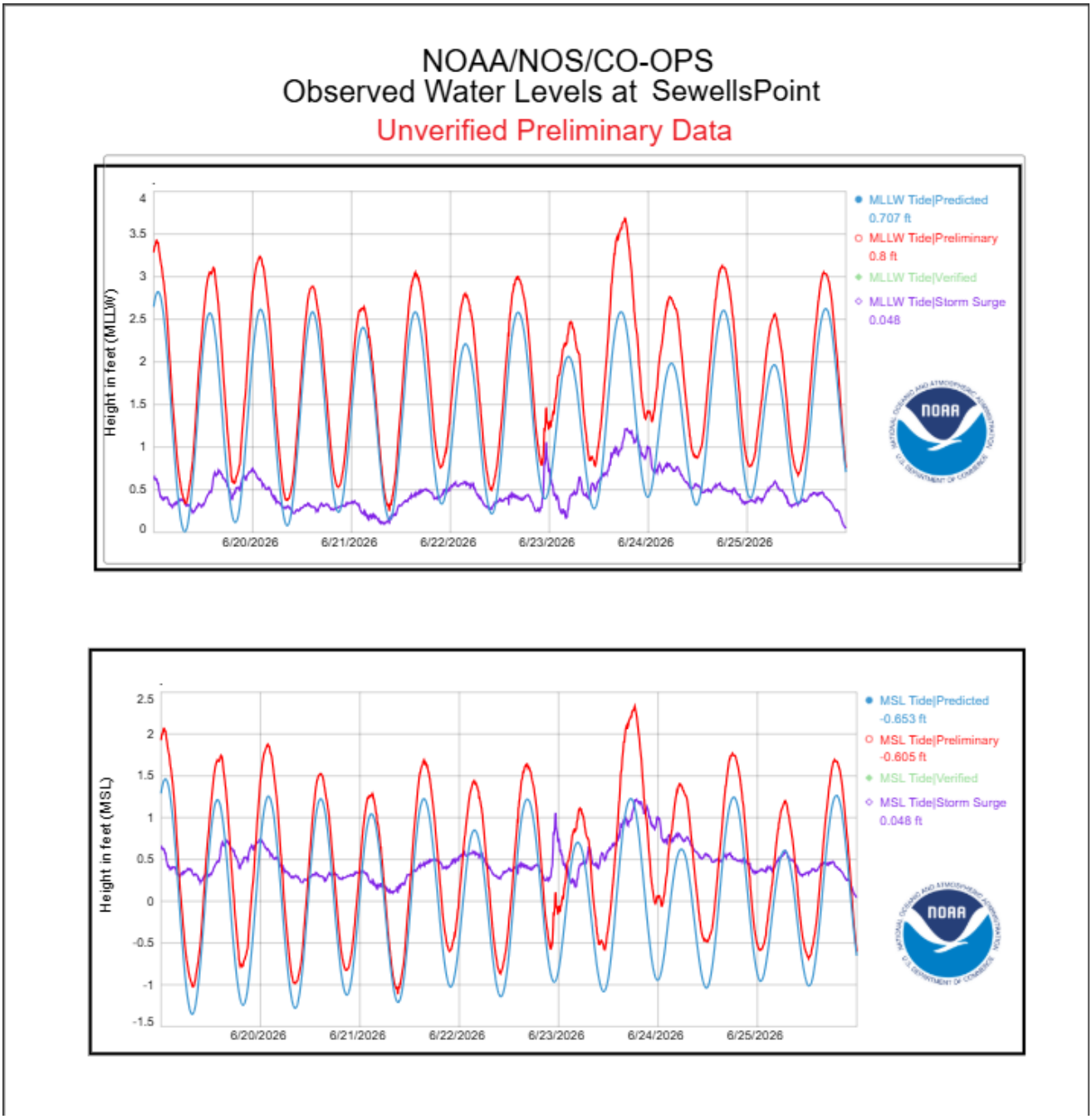


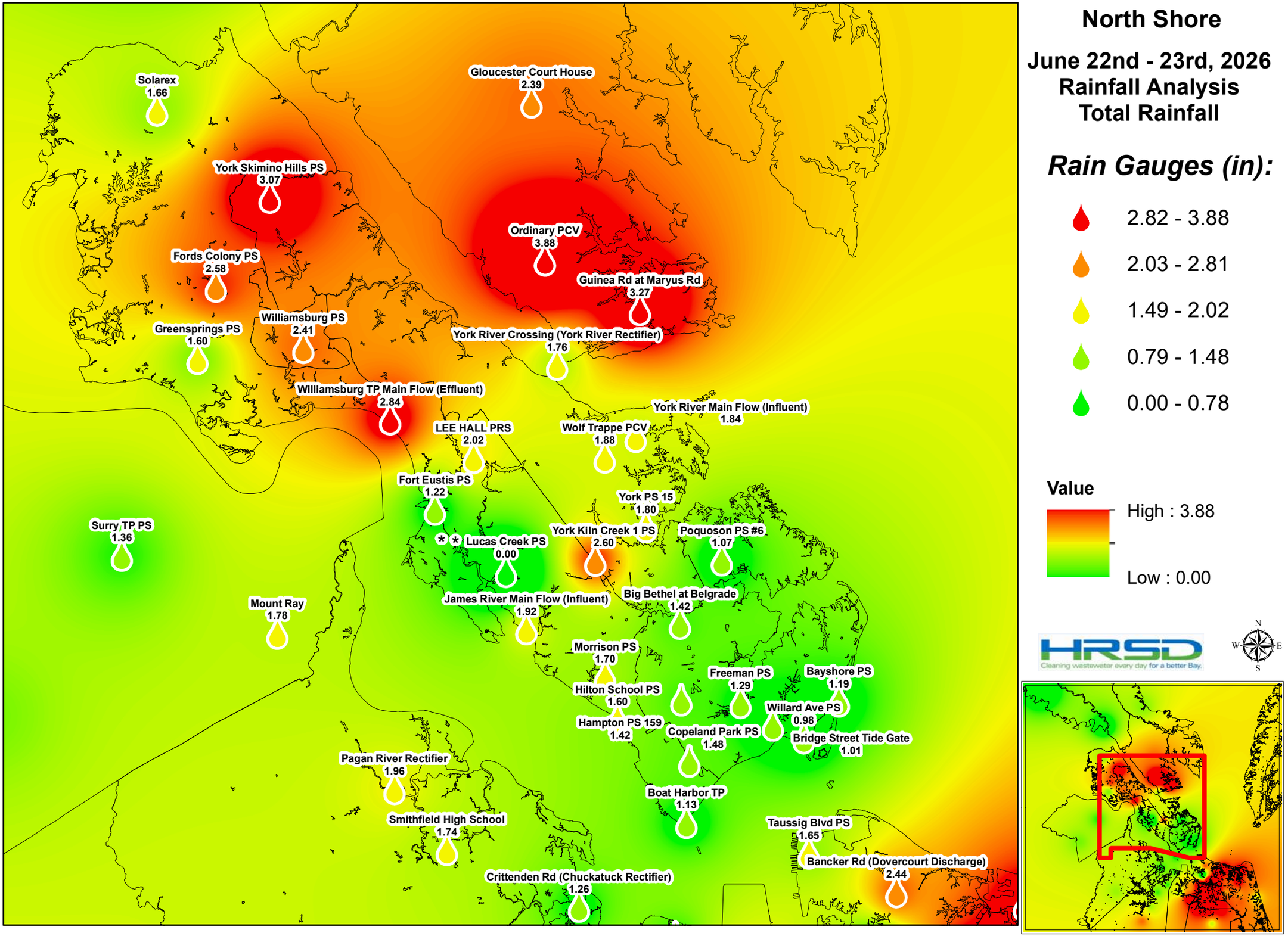
Figure 3. Preliminary data obtained from NOAA and a connection with Open Weather

Shallow Well Analysis:

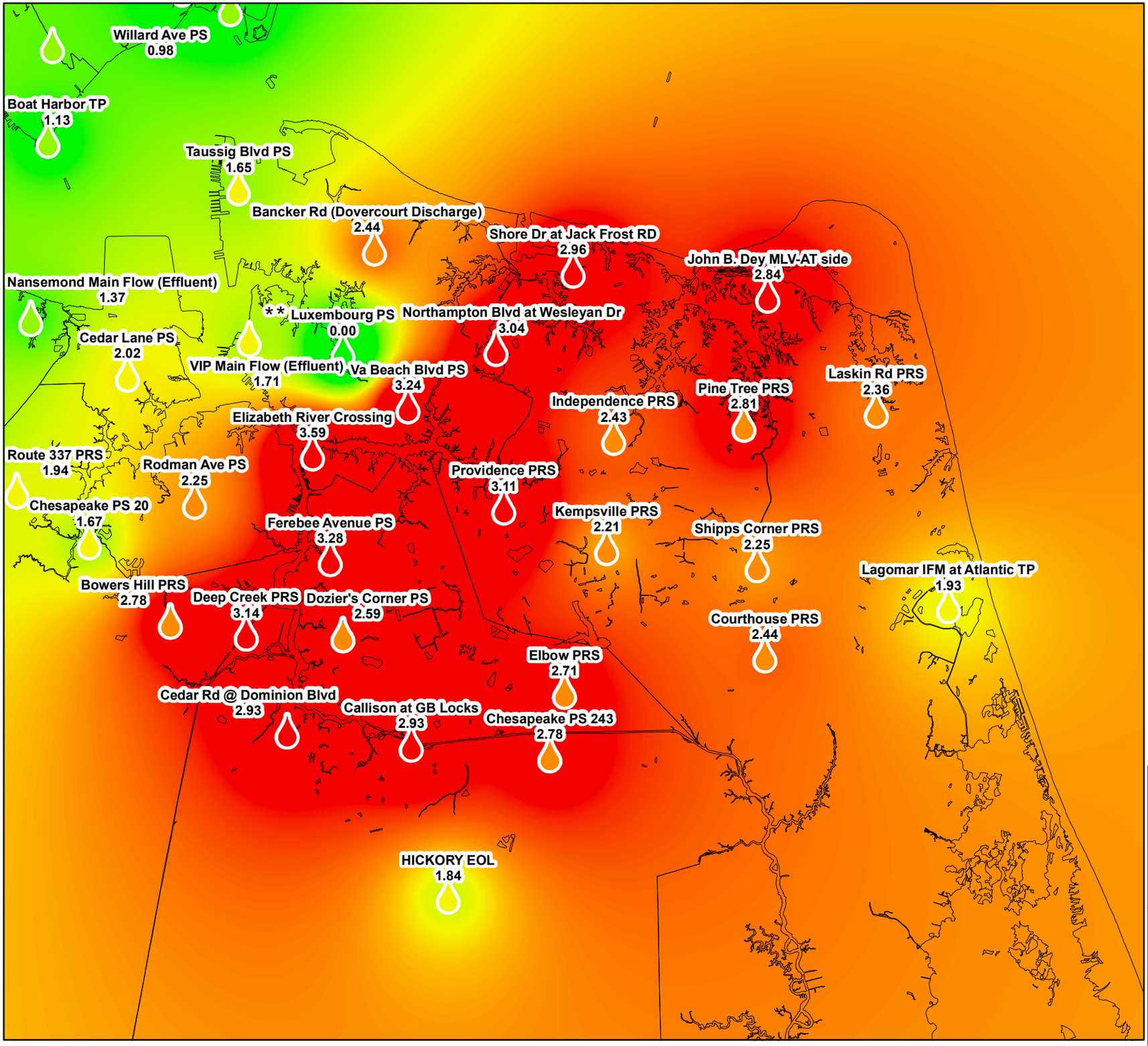
Shallow wells are located at/or near HRSD Pump Stations to measure groundwater levels. The water column is measured using a pressure transducer located near the bottom of the well. The installed sensor measures gauge pressure in inches of water. The Shallow Well_NAVD88 measurement referenced in Appendix C refers to the elevation (referenced as NAVD 88) of the sensor plus the gauge measurement in feet.

Appendix A

HRSD Rain Gauge Network
Rainfall Totals



*Note: Rain Gauge was invalid for event and an average of surrounding sites was used. **Rain Gauge disconnected during event. ***Data from NOAA used



South Shore - East

June 22nd - 23rd, 2026
Rainfall Analysis
Total Rainfall

Rain Gauges (in):

- 2.82 - 3.88
- 2.03 - 2.81
- 1.49 - 2.02
- 0.79 - 1.48
- 0.00 - 0.78

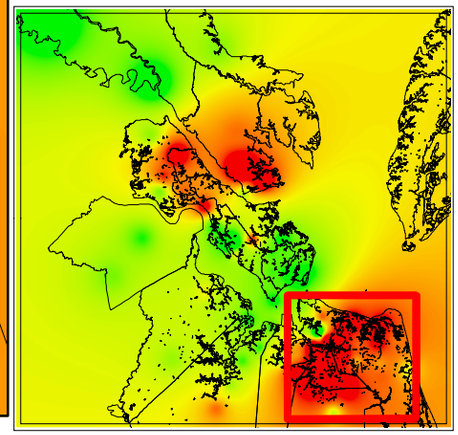
Value

High : 3.88

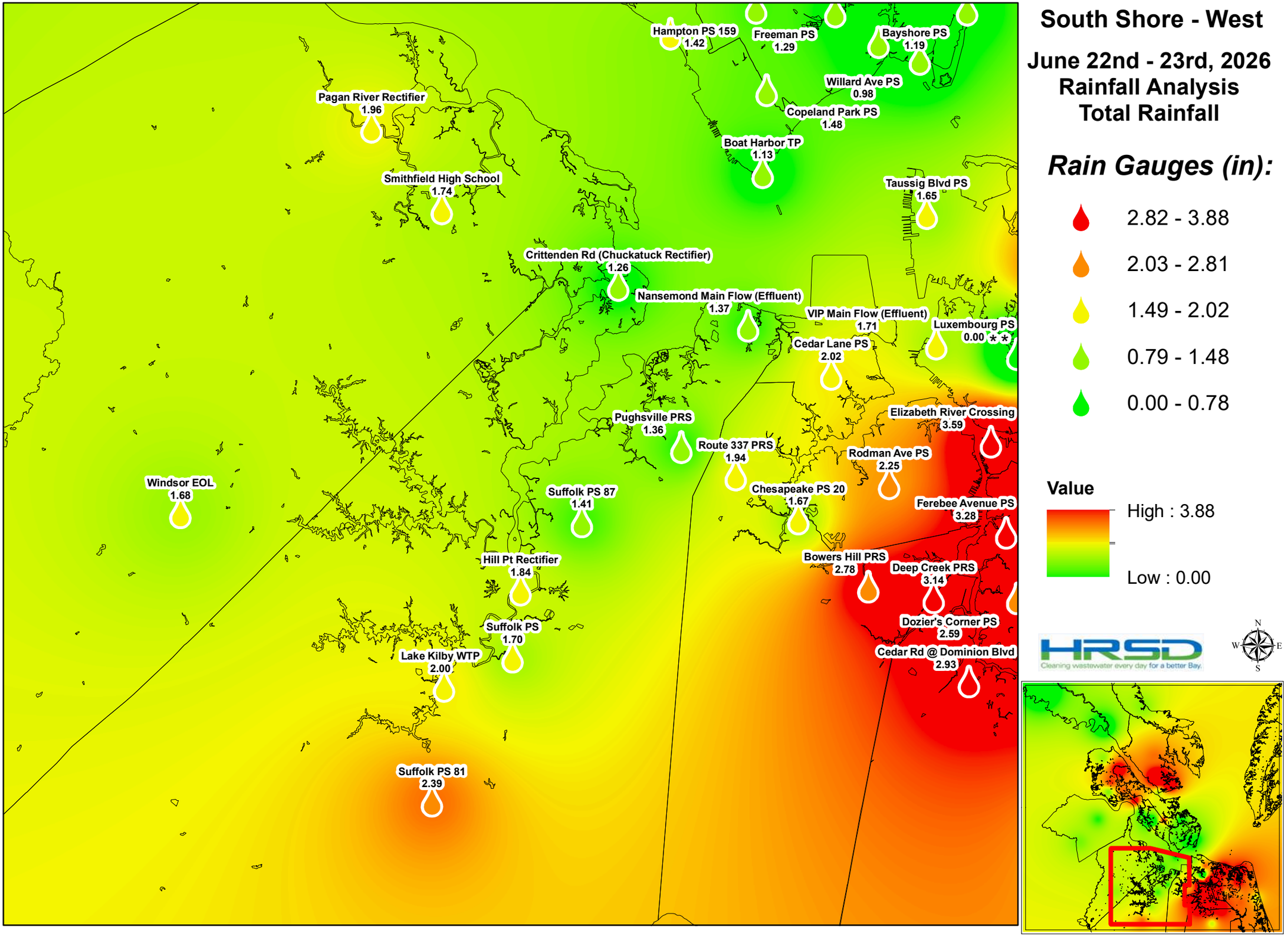
Low : 0.00

HRSD
Cleaning wastewater every day for a better Bay.

N W E S



*Note: Rain Gauge was invalid for event and an average of surrounding sites was used. **Rain Gauge disconnected during event. ***Data from NOAA used



South Shore - West

June 22nd - 23rd, 2026 Rainfall Analysis Total Rainfall

Rain Gauges (in):

- 2.82 - 3.88
- 2.03 - 2.81
- 1.49 - 2.02
- 0.79 - 1.48
- 0.00 - 0.78

Value

High : 3.88

Low : 0.00

HRSD
Cleaning wastewater every day for a better Bay.

N
W E
S

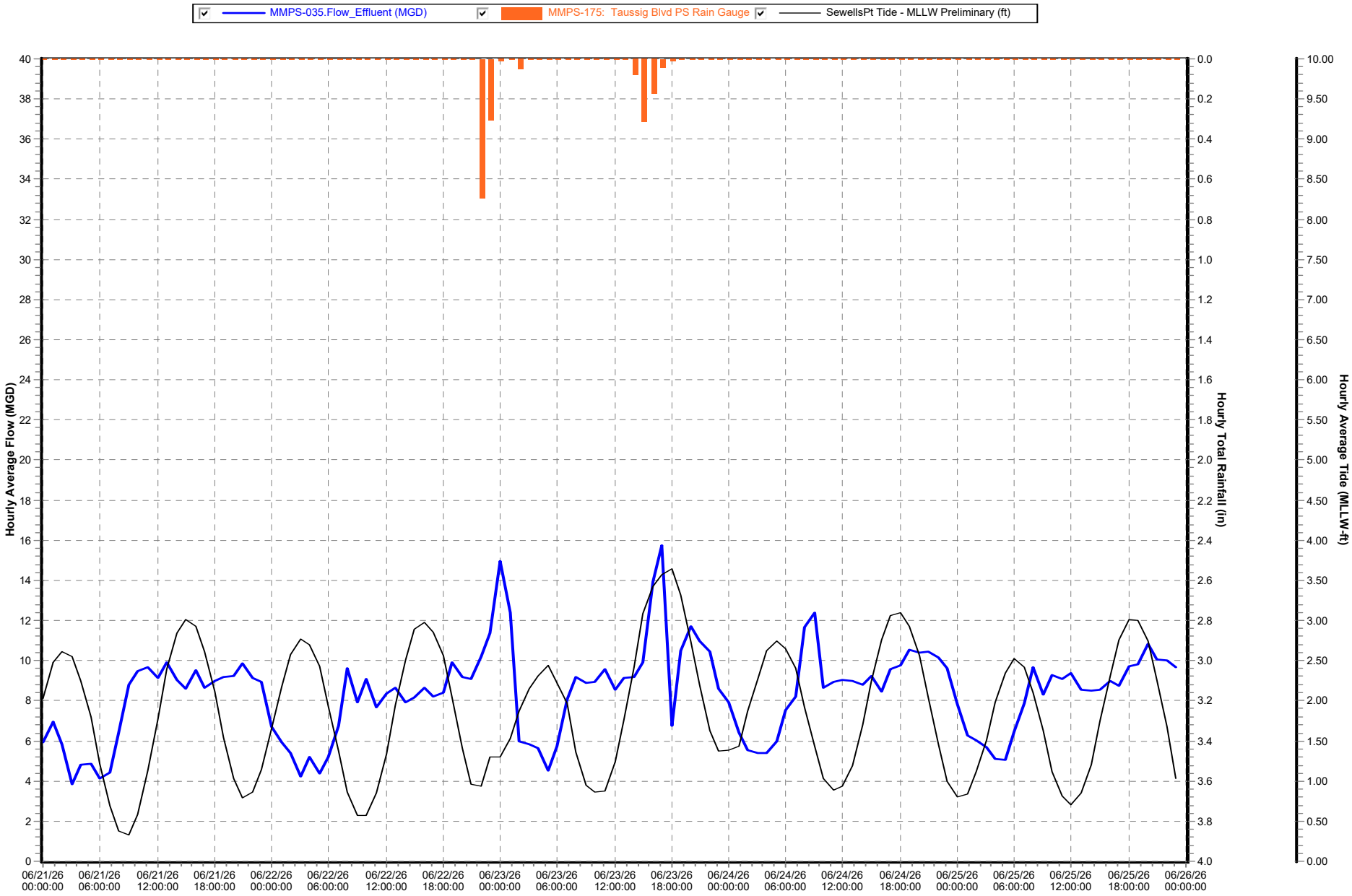
*Note: Rain Gauge was invalid for event and an average of surrounding sites was used. **Rain Gauge disconnected during event. ***Data from NOAA used

Appendix B

HRSD Treatment Plant Flows

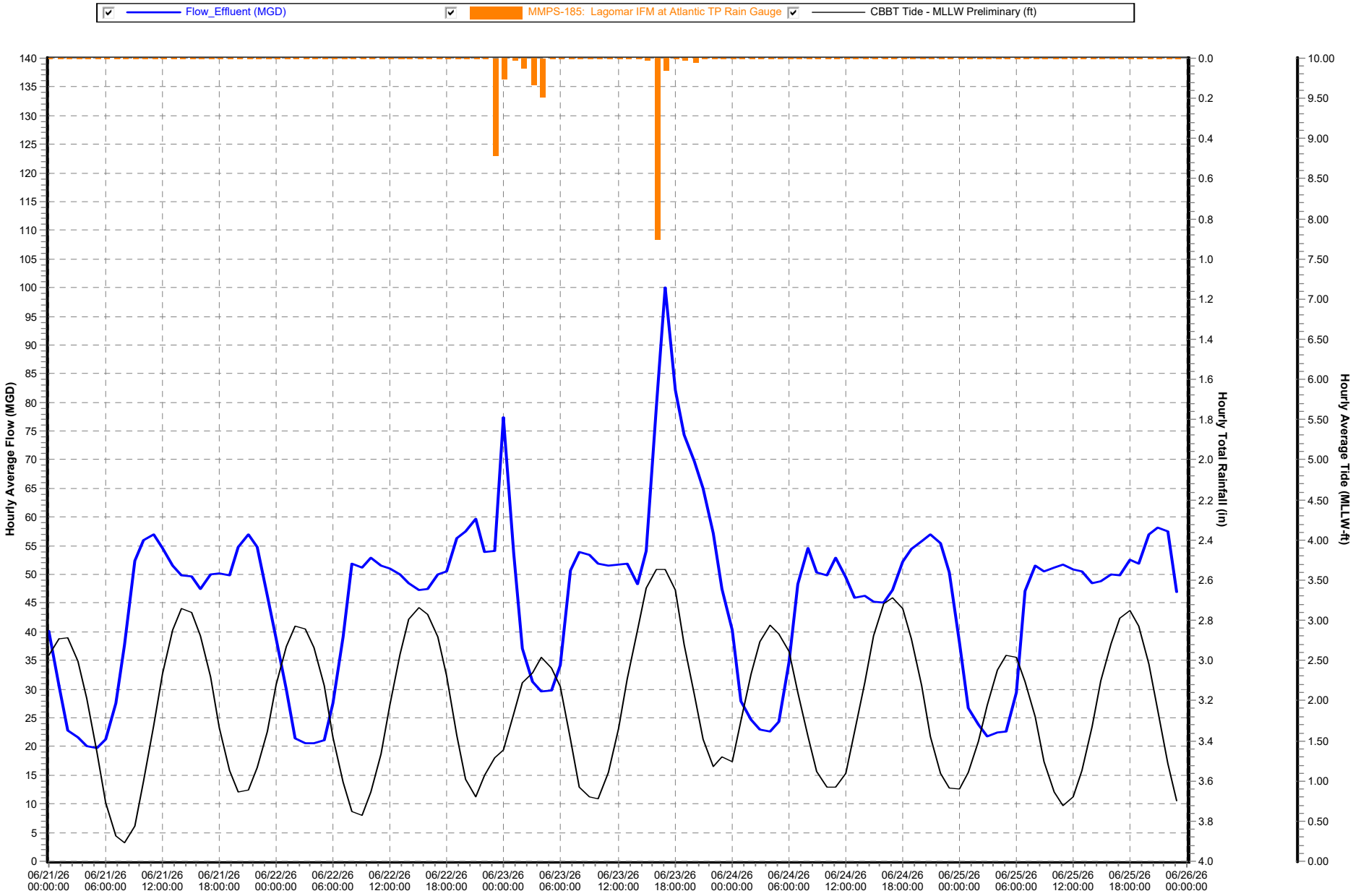
Army Base Treatment Plant

MMPS-035 (06/21/26 to 06/26/26)



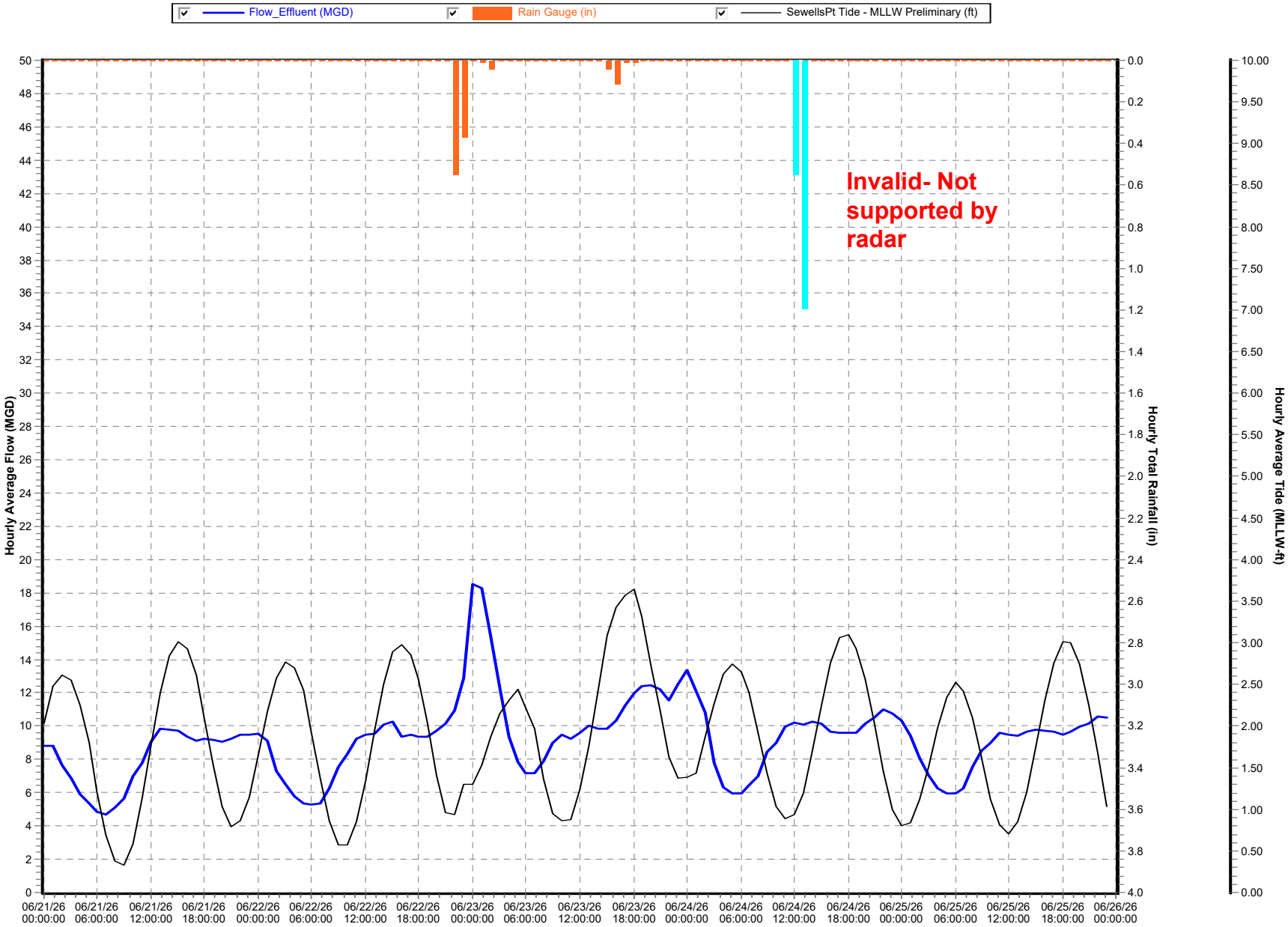
Atlantic Treatment Plant

MMPS-071 (06/21/26 to 06/26/26)



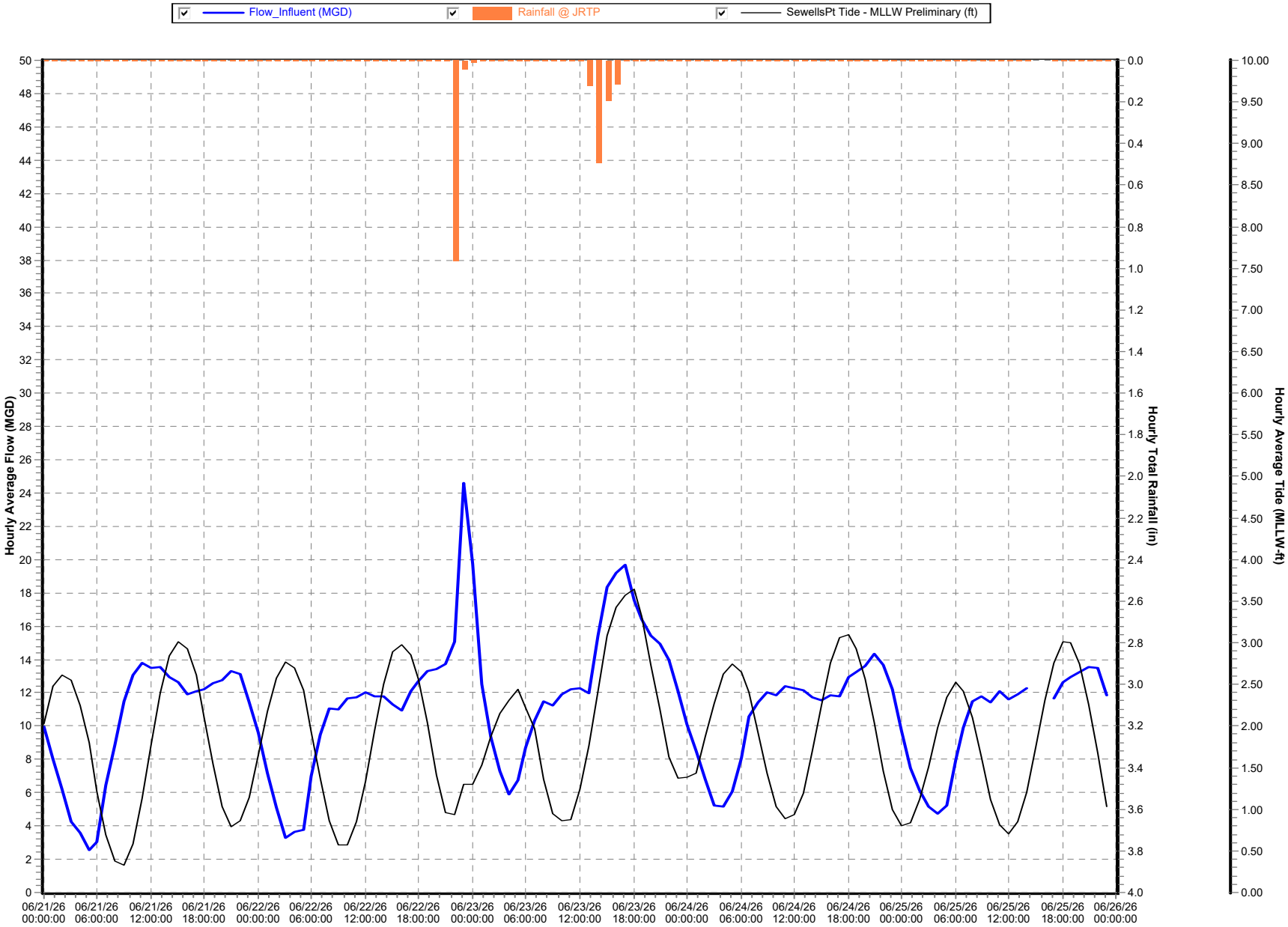
Boat Harbor Treatment Plant

MMPS-075 (06/21/26 to 06/26/26)



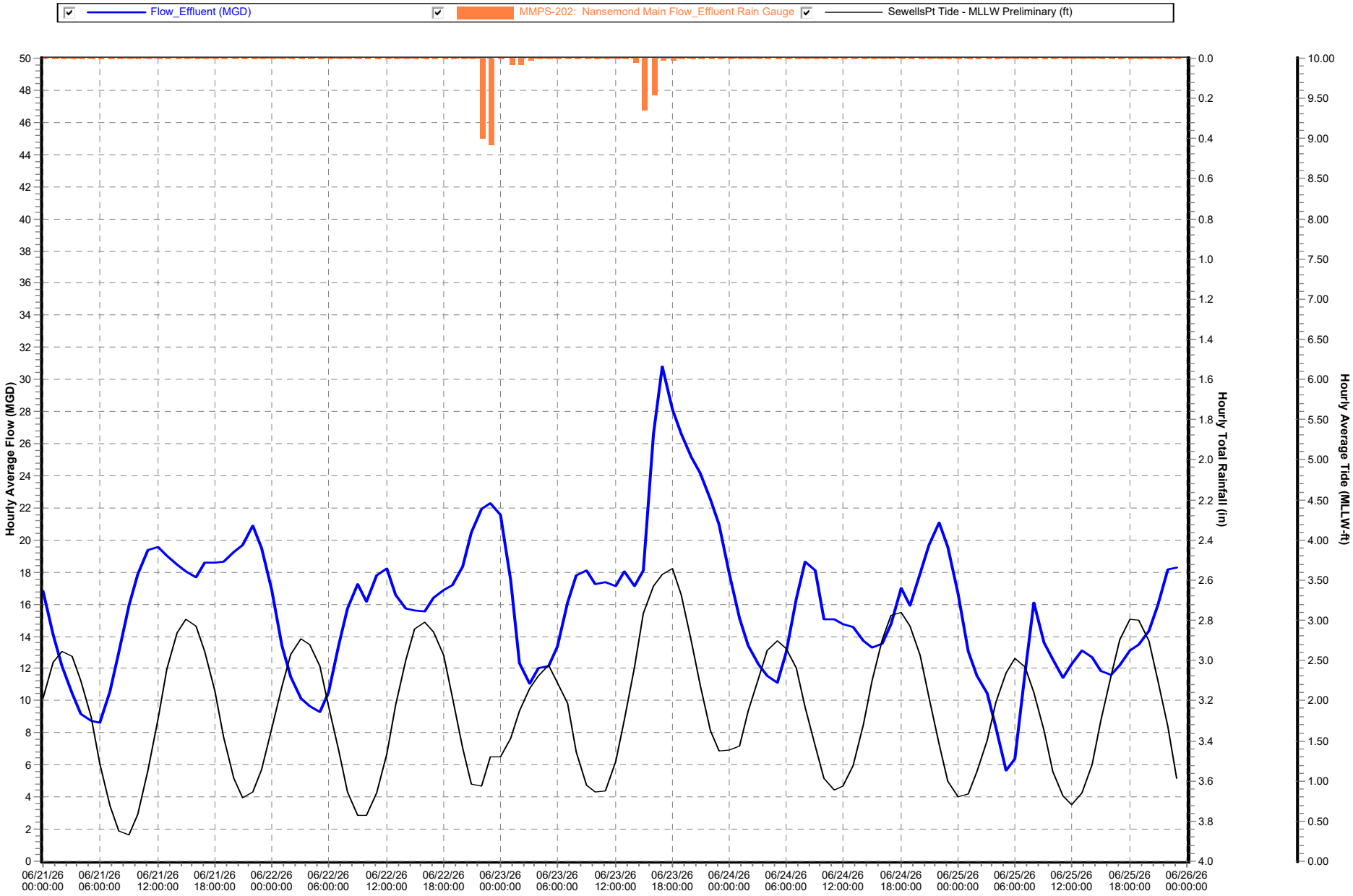
James River Treatment Plant

MMPS-184 (06/21/26 to 06/26/26)



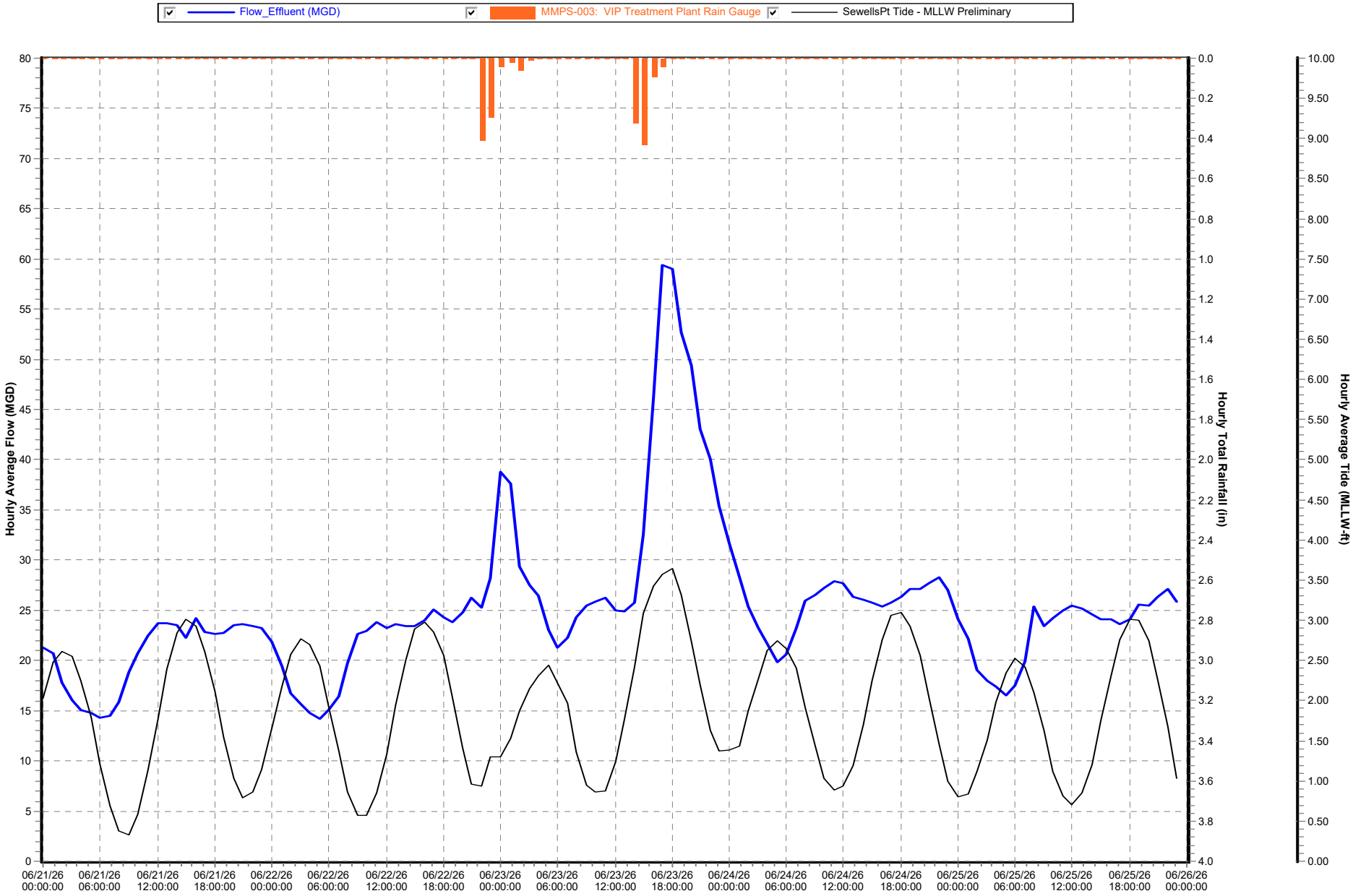
Nansemond Treatment Plant

MMPS-202 (06/21/26 to 06/26/26)



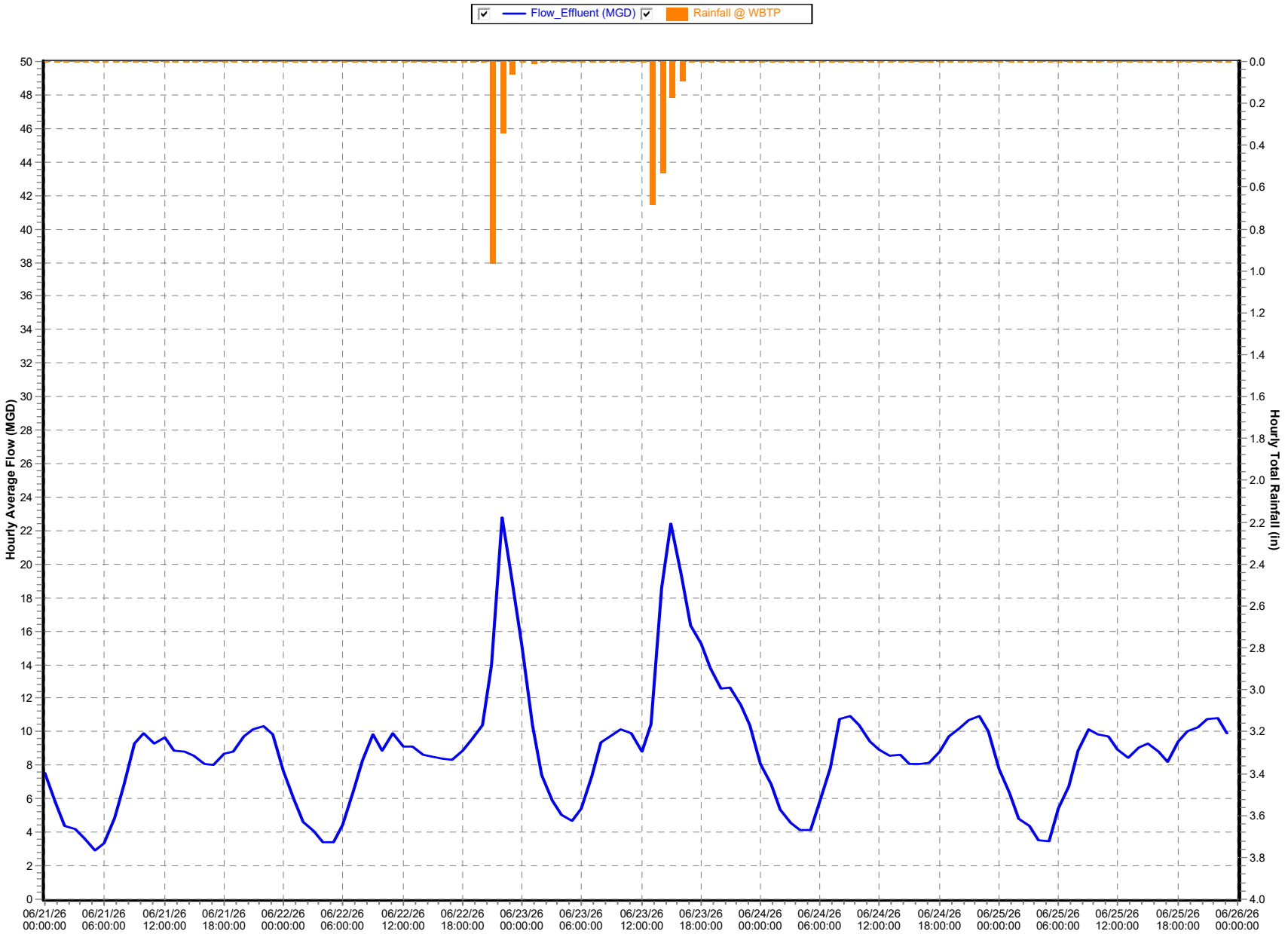
VIP Treatment Plant

MMPS-003 (06/21/26 to 06/26/26)



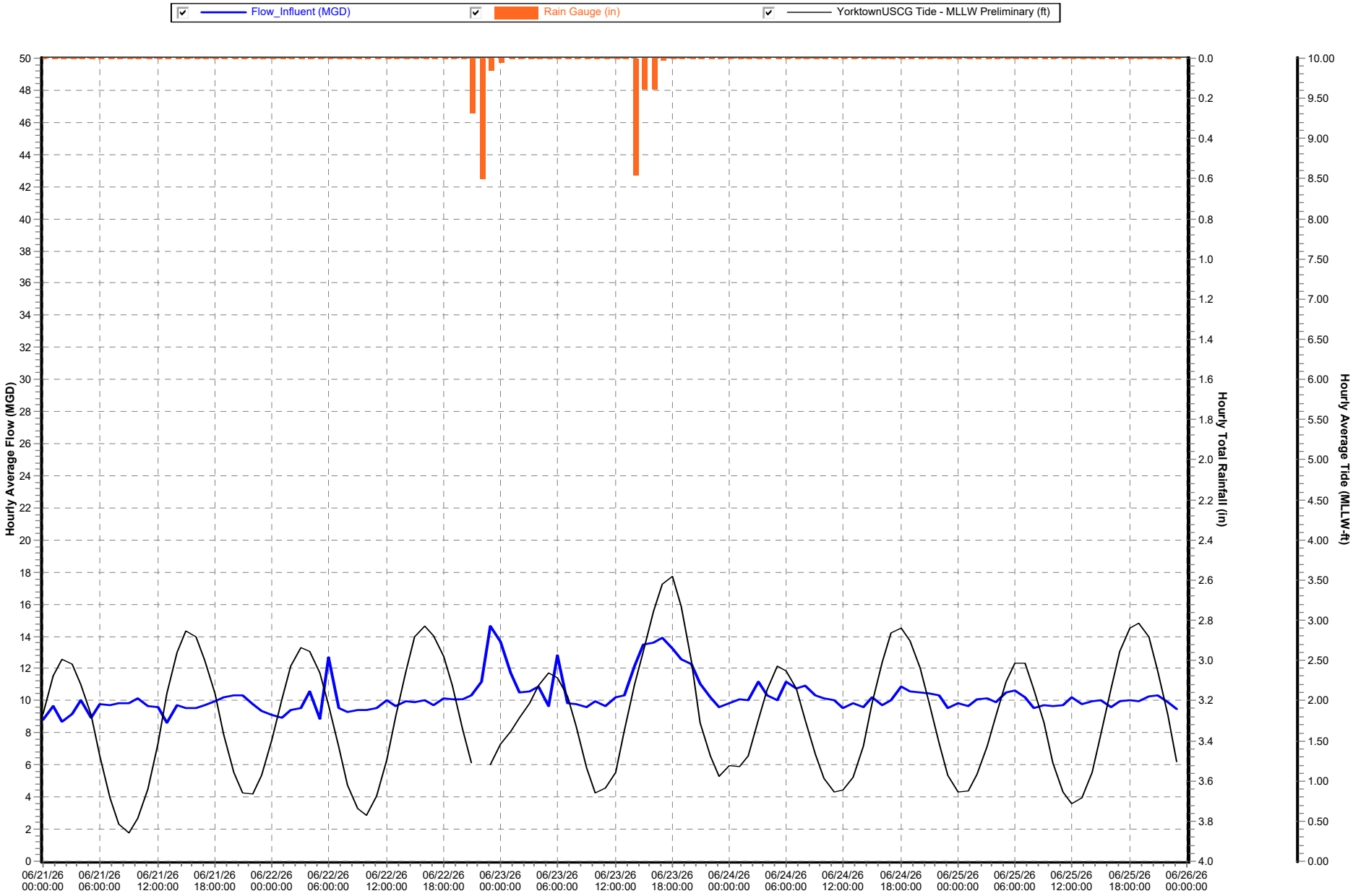
Williamsburg Treatment Plant

MMPS-222 (06/21/26 to 06/26/26)



York River Treatment Plant

MMPS-235 (06/21/26 to 06/26/26)



Appendix C

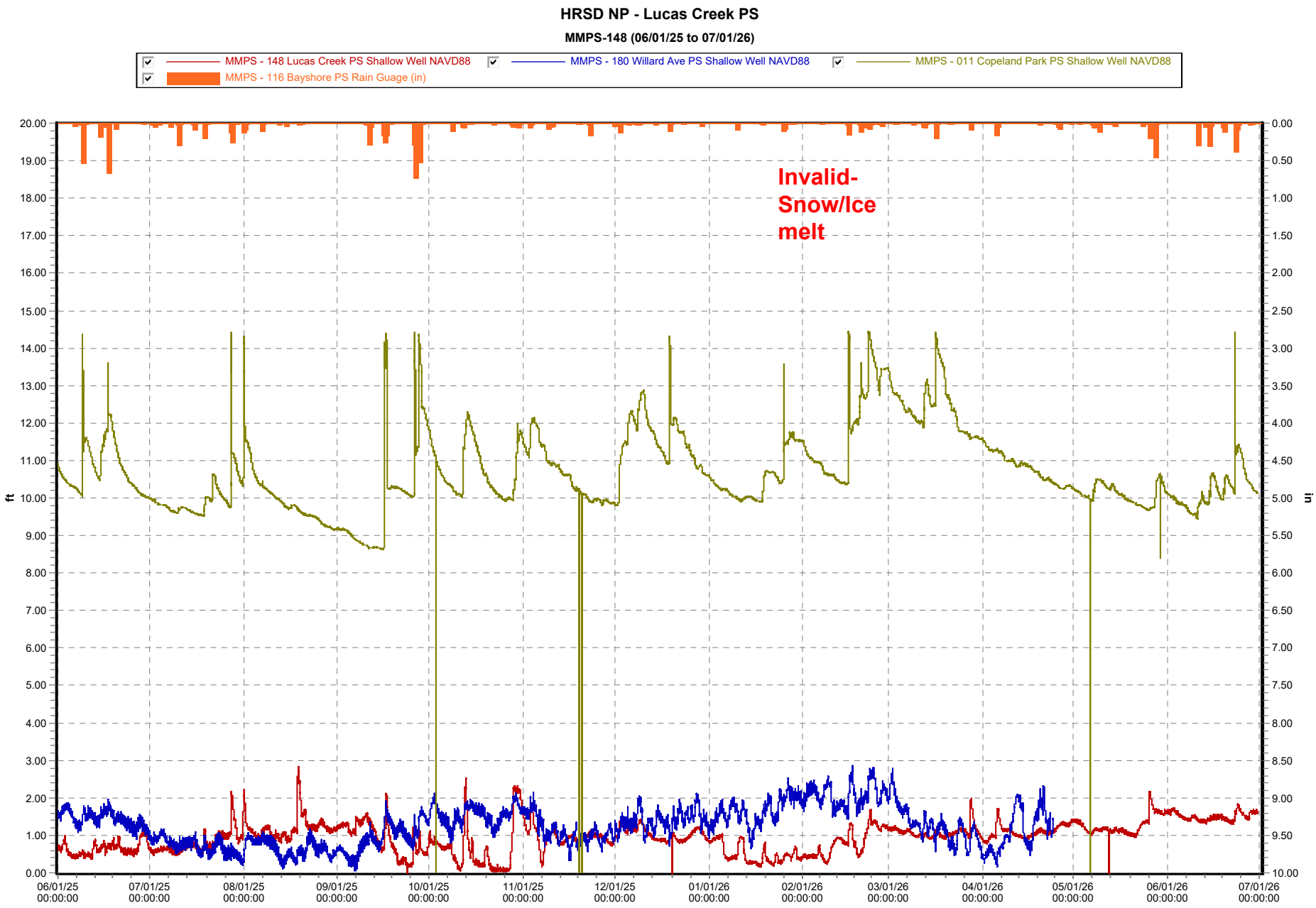
Shallow Well Analysis

5 Day

North Shore Shallow Well Graphs

06/20/26 to 06/25/26

1 Year


HRSD NP - Lucas Creek PS
MMPS-148 (06/01/25 to 07/01/26)
MMPS - 148 Lucas Creek PS Shallow Well NAVD88
MMPS - 180 Willard Ave PS Shallow Well NAVD88
MMPS - 011 Copeland Park PS Shallow Well NAVD88
MMPS - 116 Bayshore PS Rain Guage (in)
Invalid-
Snow/Ice
melt
ft
in
20.00
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17.00
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08/01/25 00:00:00
09/01/25 00:00:00
10/01/25 00:00:00
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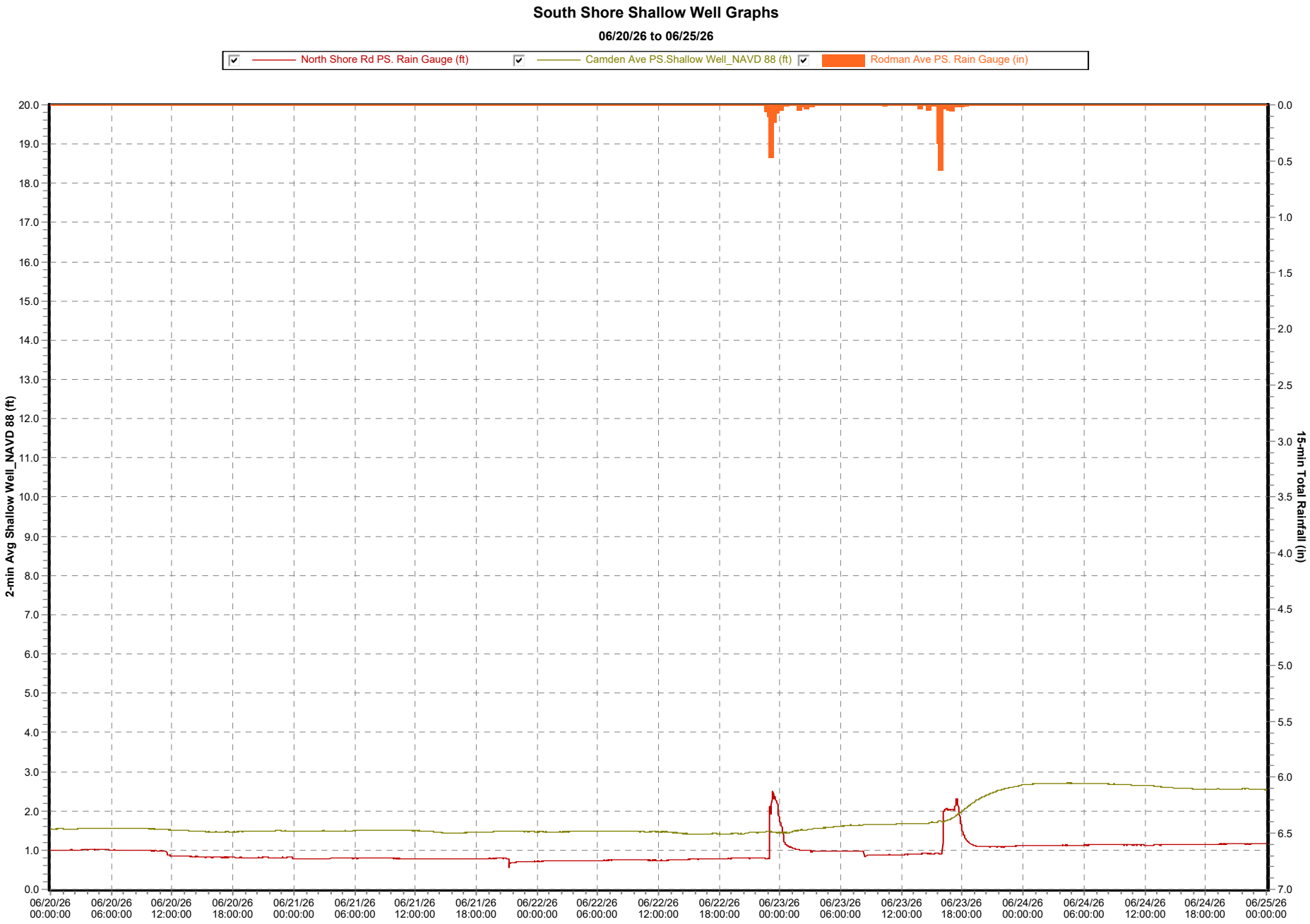
06/01/26 00:00:00
07/01/26 00:00:00

5 Day


South Shore Shallow Well Graphs
06/20/26 to 06/25/26
North Shore Rd PS. Rain Gauge (ft)
Camden Ave PS.Shallow Well_NAVD 88 (ft)
Rodman Ave PS. Rain Gauge (in)
2-min Avg Shallow Well_NAVD 88 (ft)
15-min Total Rainfall (in)
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
06/20/26 00:00:00
06/20/26 06:00:00
06/20/26 12:00:00
06/20/26 18:00:00
06/21/26 00:00:00
06/21/26 06:00:00
06/21/26 12:00:00
06/21/26 18:00:00
06/22/26 00:00:00
06/22/26 06:00:00
06/22/26 12:00:00
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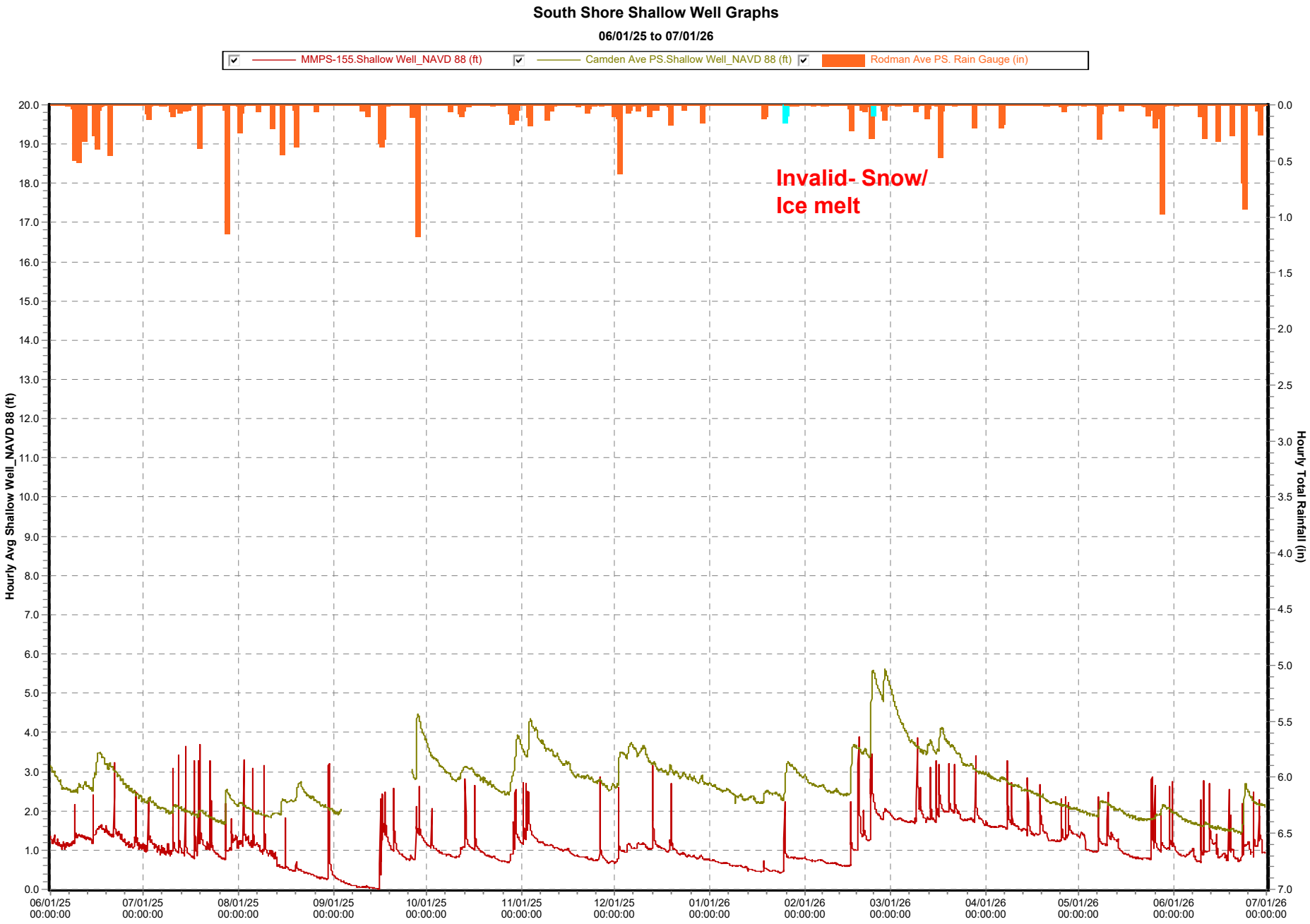
06/24/26 18:00:00
06/25/26 00:00:00

1 Year


South Shore Shallow Well Graphs
06/01/25 to 07/01/26
MMPS-155.Shallow Well_NAVD 88 (ft)
Camden Ave PS.Shallow Well_NAVD 88 (ft)
Rodman Ave PS. Rain Gauge (in)
Invalid- Snow/
Ice melt
Hourly Avg Shallow Well_NAVD 88 (ft)
Hourly Total Rainfall (in)
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
06/01/25 00:00:00
07/01/25 00:00:00
08/01/25 00:00:00
09/01/25 00:00:00
10/01/25 00:00:00
11/01/25 00:00:00
12/01/25 00:00:00
01/01/26 00:00:00
02/01/26 00:00:00
03/01/26 00:00:00
04/01/26 00:00:00
05/01/26 00:00:00
06/01/26 00:00:00
07/01/26 00:00:00