

## Weekend Storm Briefing

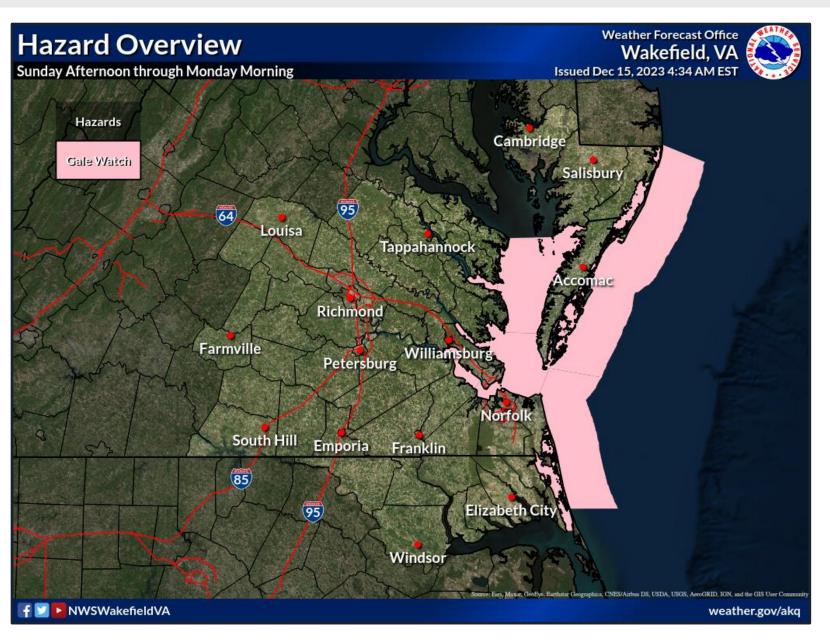
Prepared by National Weather Service Wakefield, VA

### **Decision Support Briefing #1**

→ As of 10:30 AM EST Friday, December 15, 2023

## **NEW Important Updates**

→ Gale Watches in effect for all marine zones



Disclaimer: Information may become outdated after briefing time. Consult weather.gov/wakefield for the latest information.





- Moderate to heavy rain is expected Sunday through Monday morning with a widespread 2-3" (locally higher) of accumulation expected. This may lead to localized flooding, especially in urban areas.
- Strong southeast winds expected Sunday afternoon through Monday. Strongest wind gusts will be Sunday evening with 40-50 mph gusts expected near the coast and 30-40 mph gusts expected inland. Wind advisories are likely for coastal zones. Localized power outages possible.
- Potential for moderate coastal flooding in the middle/upper Chesapeake Bay and nuisance to minor flooding elsewhere. Highest tide would be Monday morning.
- Marine: Gale Watches are in effect across all marine zones Sunday afternoon through Monday morning. Strong southeast winds will gust 40-50 kt. Seas of 12-14 ft expected.





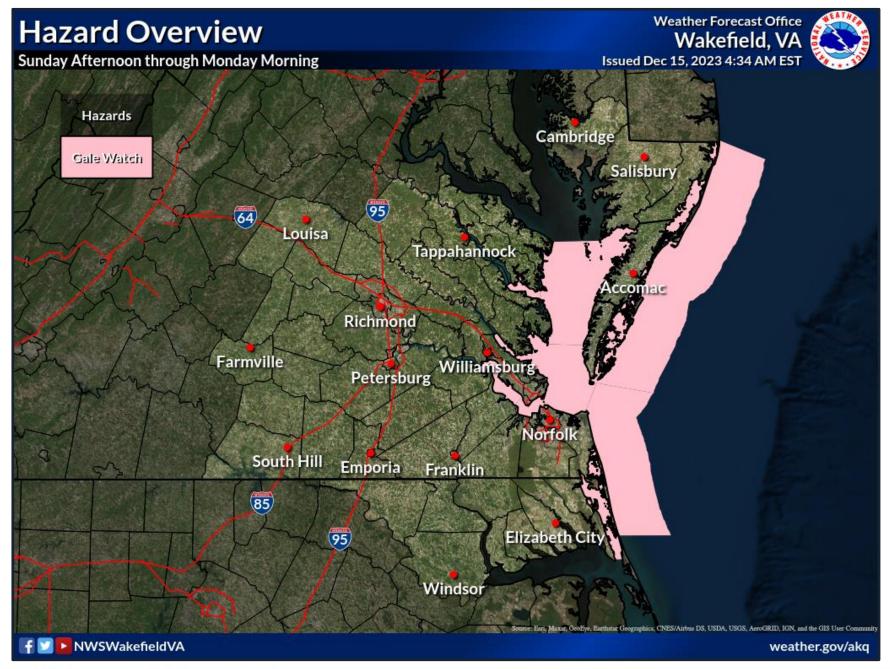
# Summary of Greatest Impacts

	Hazard	Impacts	Location	Timing			
	Heavy Rain	Rainfall of 2-3" (locally higher) may lead to localized flooding, especially in urban areas	Entire forecast area	Sunday morning through Monday morning			
	High Wind	Gusts of 45 to 50 mph may result in localized power outages	Immediate coast of SE VA and NE NC	Sunday afternoon into Monday morning. Highest Sunday evening			
	Coastal Flooding	Moderate tidal flooding (inundation of 1-2 ft AGL in vulnerable areas)	Middle and upper Chesapeake Bay (Lewisetta, VA - Cambridge, MD) North side of the Albemarle Sound	Monday morning			
<u></u>	Marine	Strong SE winds with gusts of 40-50 kt and seas 12-14 ft	All waters coastal and nearshore waters	Sunday afternoon into Monday morning. Highest winds Sunday evening.			





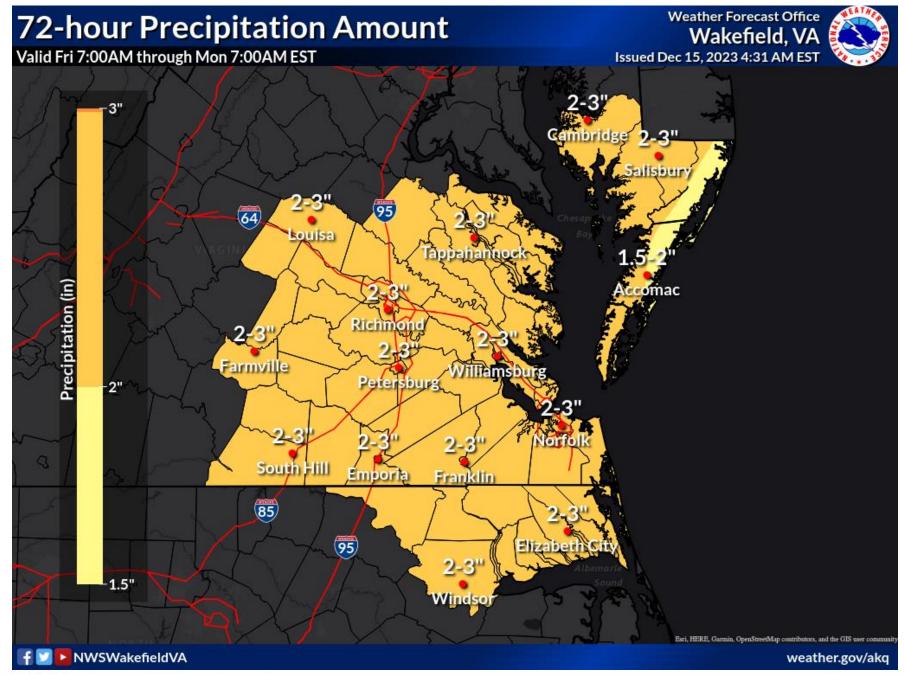
## Hazard Overview



- Marine: Gale Watches are in effect for all marine zones
- Wind Advisories likely along the coast
- See <u>www.weather.gov/akq</u> for the latest information



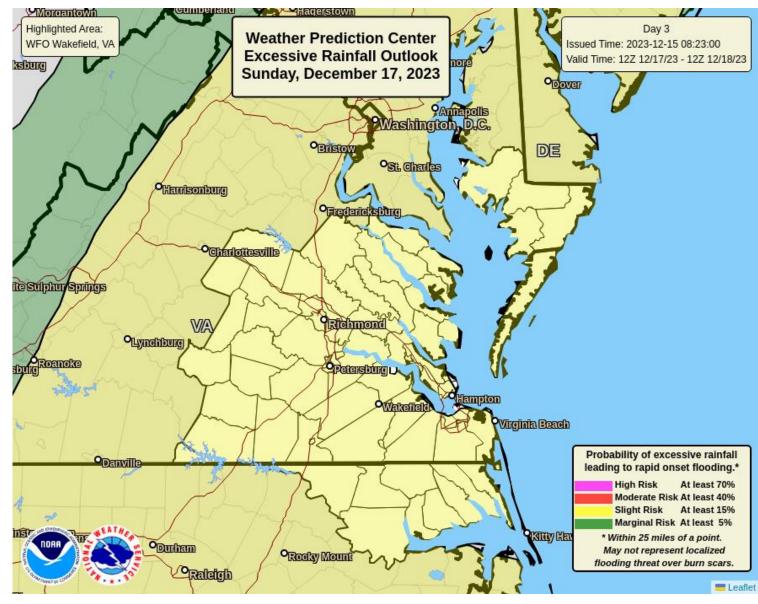
## Expected Rainfall Forecast



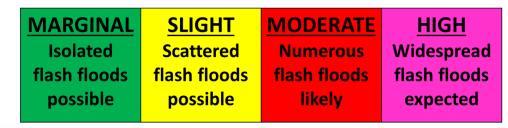
- Widespread 2 to 3 inches of rain with locally higher amounts.
- Rain will move in early Sunday morning and continue into Monday morning. Heaviest rain will likely be Sunday evening/Sunday night.
- Periods of heavy rain may limit visibility, especially combined with 30-40 mph wind gusts. Heavy rain may also lead to localized flooding in vulnerable areas.



## Flood Threat - Sunday

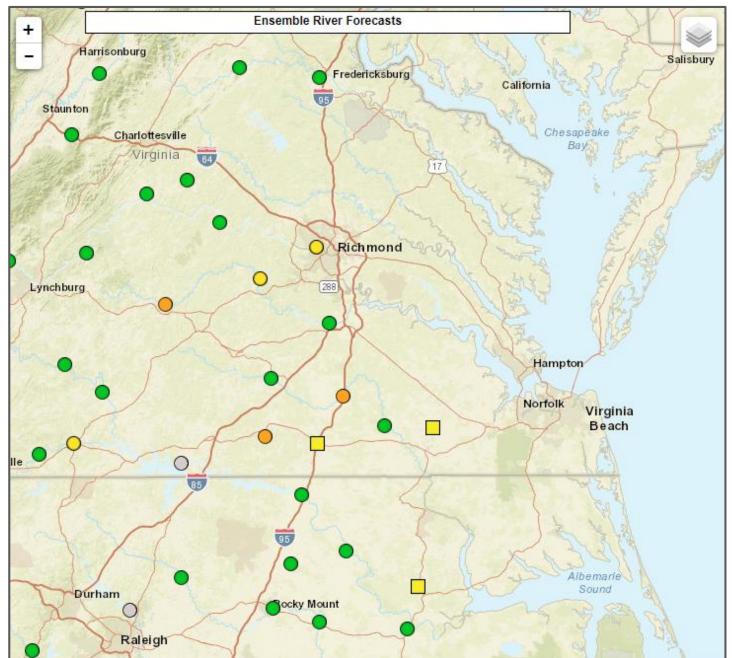


- There is a slight risk for flash flooding across the entire area Sunday
- Urban areas will be at greatest risk for flooding.





## Minor River Flooding Possible

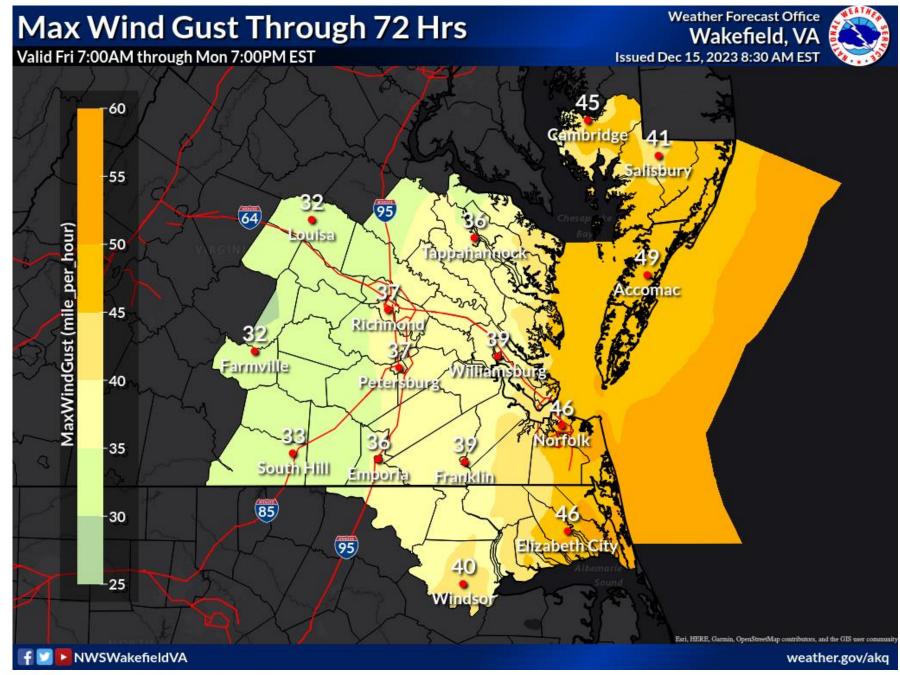


- River points highlighted in yellow and orange have the potential to see nuisance to minor flooding from the upcoming rainfall.
- Nuisance to minor flooding is also possible for portions of the Blackwater River and Chickahominy River (near Providence Forge).

Chance of Exceedance									
30%	30% Level								
0	Action								
0	Minor Flood								
	Moderate Flood								
	Major Flood								
= less than 30% chance of reaching Action level									



# High Wind Potential



- Gusty southeast winds are expected Sunday afternoon through Monday morning, becoming westerly and remaining gusty Monday
- Highest wind gusts (45-55 mph) are expected along the coast Sunday evening
- Downed tree limbs/power lines could result in isolated to scattered power outages



## Timing of Wind and Rain (wind in mph)

Maximum Wind Gust Forecast													
		12/	/17			12/	/18		12/19				
		Sı	ın			M	on			Τι	ıe		
	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	
Accomac	13	23	35	45	44	<b>45♠</b>	44 <b>→</b>	31 <b>→</b>	29	35	37	33	
Ahoski	12*	24	33	37	30ጜ	35➡	31➡	22	21*	24	25	16	
Cambridge	12**	18	28	36	35	<b>41</b> →	39❤	29➡	25	31	32	28	
Corolla	16	30	44	<b>47</b>	46	43	37❖	26	29*	31*	32	29	
Elizabeth City	14*	25	38	44	38₹	<b>41</b> →	36➡	24	23	28	29	23	
Emporia	10=	21	30 <b>←</b>	33	30❤	33	31➡	24➡	21*	24	25	18	
Farmville	10	16	18#	24≰	28 <b>₽</b>	30	28❤	24❤	21*	22	24	15	
Louisa	8	13	21	22	28	30	30❤	24➡	18*	22	24	16	
Norfolk / Portsmouth	14*	23	37	43	39록	43→	38❖	26➡	24	29	30	25	
Ocean City	15	21	31	45 <b>~</b>	45	41🕏	41→	31 <b>→</b>	25	31	33	31	
Richmond	8	184	30 <b>←</b>	35 <b>←</b>	31	33🜥	31❤	25➡	21*	22	24	18३	
Salisbury	12	21	30	40	40 <b>%</b>	40 <b>1</b>	40→	31 <b>→</b>	22	30	33🜥	28	
South Hill	13	18	25	28	30	31	30❤	24	21*	24	24	16	
Tappahannock	8**	16	28	33	26	31→	30❤	23	20	24	28	21	
Virginia Beach	16₩	25	40	47 <b>%</b>	44 <b>%</b>	43→	38→	28	29*	31	32	29	
Williamsburg	10*	22	32	38	30	36❤	33➡	23	22*	25	26	22	

<sup>\*</sup>Table values in mph

Probability of	Precipitation	Forecast

		/17	ľ	12	/18		12/19						
		ın		M	on		Tue						
	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am 6am 12pm 6pm				
Accomac	10	50	80	90	90	80	60	20	20	20	5	5	
Ahoski	20	70	90	90	85	70	40	10	15	15	0	0	
Cambridge	10	50	80	95	95	85	65	25	20	20	5	5	
Corolla	15	60	85	90	90	80	45	15	20	20	5	5	
Elizabeth City	15	60	85	90	90	75	40	10	15	15	0	5	
Emporia	20	70	90	90	85	70	40	10	15	15	0	0	
Farmville	25	70	85	85	85	75	35	15	15	10	0	0	
Louisa	20	65	85	90	90	75	45	20	20	15	0	0	
Norfolk / Portsmouth	15	60	85	90	90	80	50	15	20	20	0	5	
Ocean City	10	45	75	90	90	85	65	30	20	20	5	5	
Richmond	20	65	85	90	90	75	45	15	15	15	0	0	
Salisbury	10	45	75	90	90	85	65	25	20	15	0	5	
South Hill	25	70	90	90	85	70	35	10	10	10	0	0	
Tappahannock	15	55	85	95	95	80	50	20	20	20	0	0	
Virginia Beach	15	55	85	90	90	80	50	15	20	20	5	5	
Williamsburg	15	60	85	90	90	75	50	15	20	20	0	0	
*Table values in 0/													

<sup>\*</sup>Table values in %



<sup>\*\*</sup>Created: 8 am EST Fri 12/15/2023

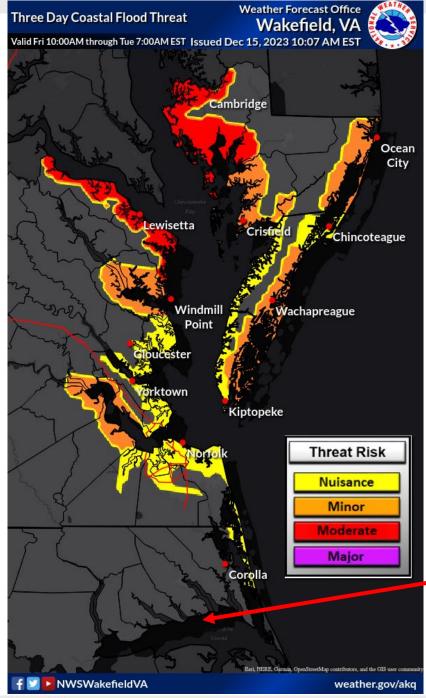
<sup>\*\*\*</sup>Values are maximums over the period beginning at the time shown.

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# Tidal Flooding Overview



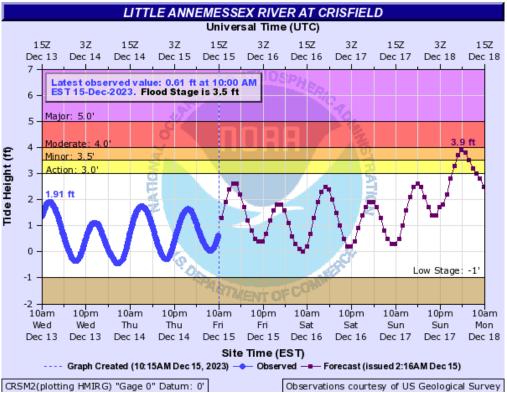
- Nuisance to minor tidal flooding is possible in most areas during the high tide cycles Sunday evening and again Monday morning.
- Moderate tidal flooding (inundation of 1-2 ft AGL in vulnerable areas) is possible during the Monday morning high tide cycle in the red highlighted area from Lewisetta, VA-Cambridge, MD).
- Minor to moderate tidal flooding is also possible on the north side of the Albemarle Sound from Sunday-Sunday evening (not shown on map).

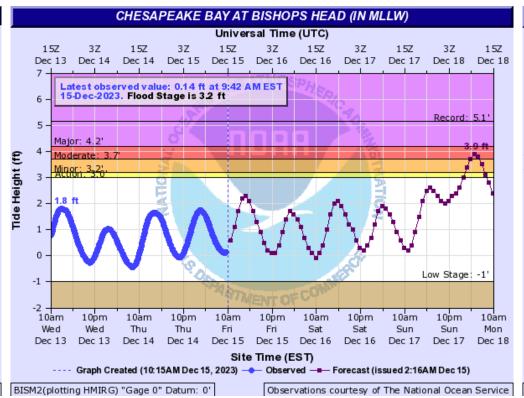


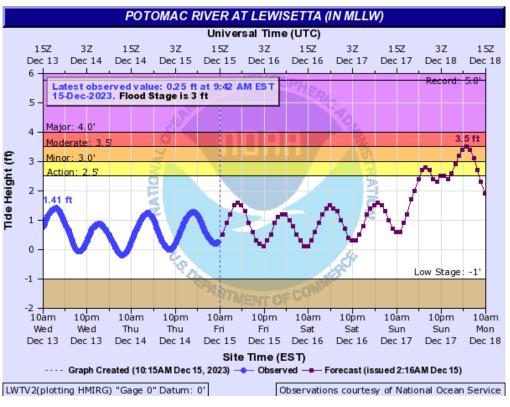


# Tidal Overview - Upper Bay

Note: All forecasts reference Mean Lower Low Water (MLLW).







### **Summary of Tidal Trends**

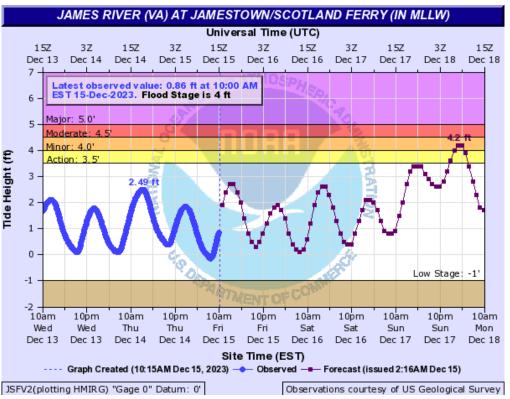
- Minor to moderate tidal flooding is possible early-mid Monday morning. This corresponds to inundation of 1-2 feet above ground level in vulnerable areas.
- Widespread flooding of vulnerable areas may result in an elevated threat of property damage.

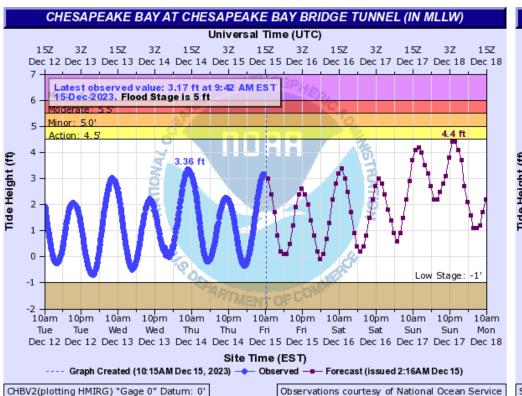


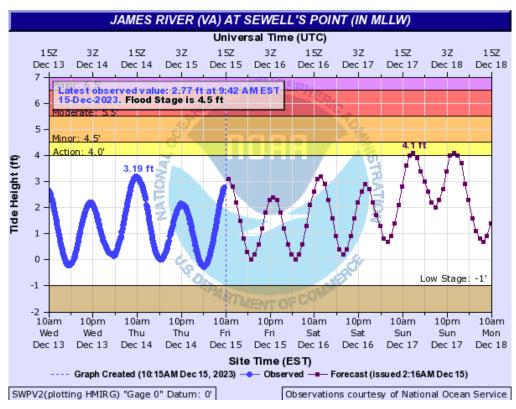


## Tidal Overview - Lower Bay/James

Note: All forecasts reference Mean Lower Low Water (MLLW).







### **Summary of Tidal Trends**

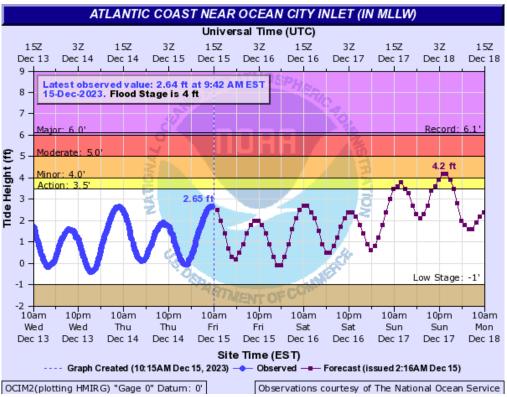
- Nuisance to minor tidal flooding is possible Sunday evening and again early Monday morning. This corresponds to inundation of up to 1 foot above ground level in vulnerable areas.
- Shallow flooding in the most vulnerable locations near the waterfront and shoreline resulting in a low threat of property damage.

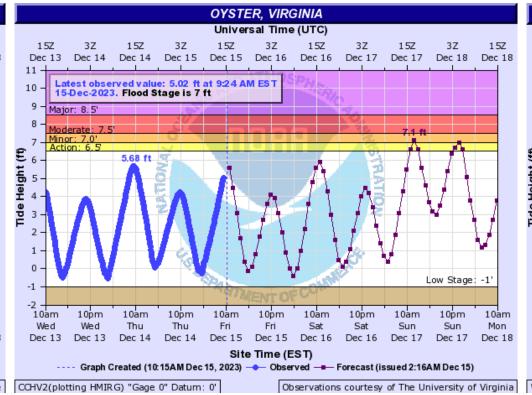


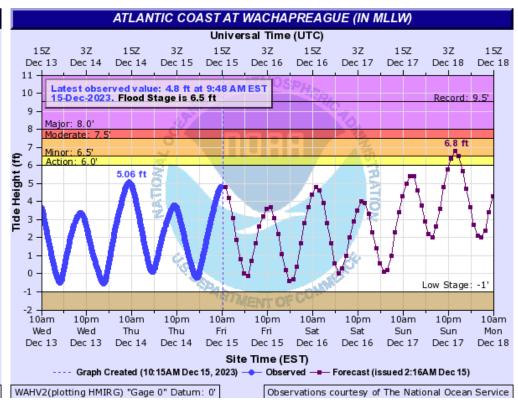


## Tidal Overview - Ocean

Note: All forecasts reference Mean Lower Low Water (MLLW).







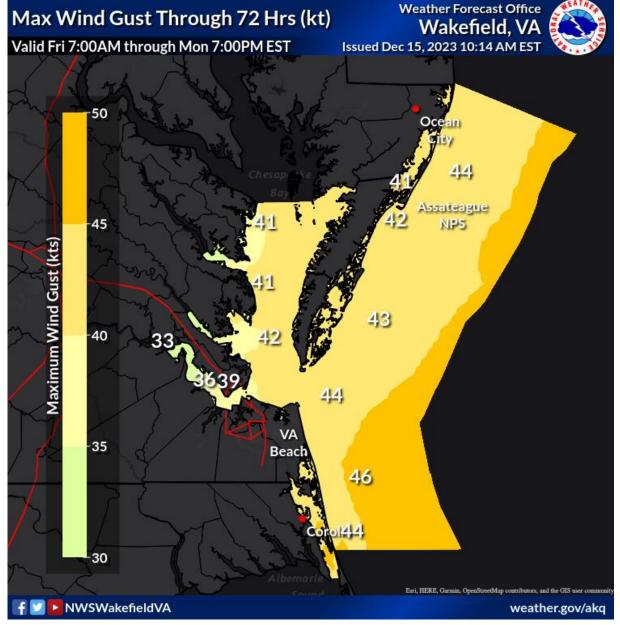
### **Summary of Tidal Trends**

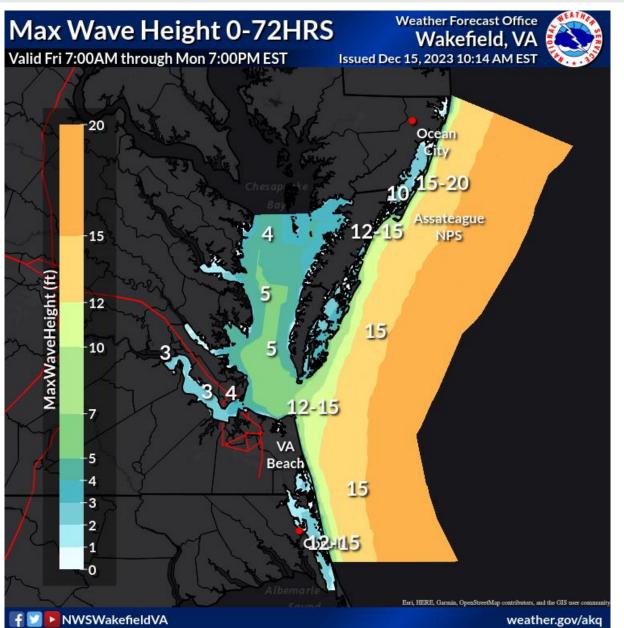
- Nuisance to minor tidal flooding is possible Sunday evening and again early Monday morning. This corresponds to inundation of up to 1 foot above ground level in vulnerable areas.
- Shallow flooding in the most vulnerable locations near the waterfront and shoreline resulting in a low threat of property damage.





## Marine Threat Potential





## **Key Points:**

- Sub-advisory conditions are expected through Saturday night.
- Southeast winds will quickly increase on Sunday. Gusts to 35-45 kt are expected Sunday afternoon-Sunday night. Gusts may be higher at elevated sites.
- Dangerous seas of 10-16 feet are expected from Sunday-Monday AM.

For Port specific forecast information visit: <a href="https://www.weather.gov/akq/dss\_port">https://www.weather.gov/akq/dss\_port</a>

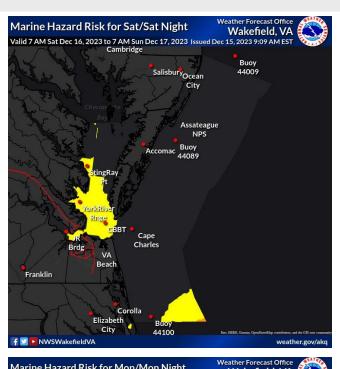


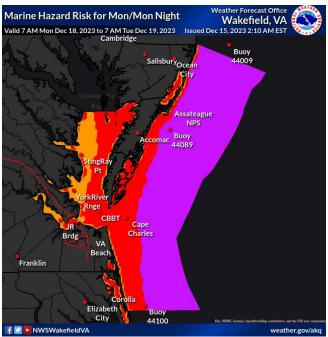


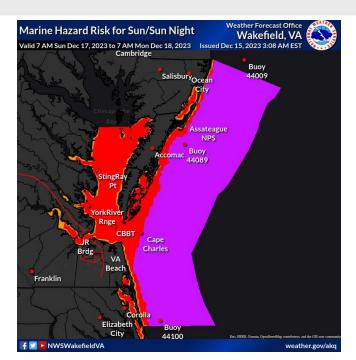
## Marine Threat Potential - Next 5 Days

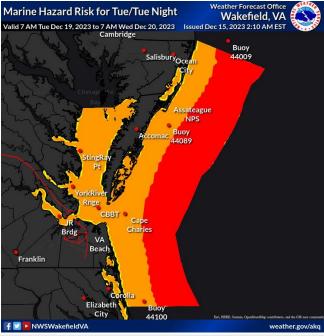


Limited	Wind Gusts >= 20 knots (15 kt Bay & rivers) and/or Waves >= 4 feet (2 ft Bay & rivers).
Elevated	Wind Gusts >= 25 knots (20 kt Bay & rivers) and/or Waves >= 5 feet (>=4 ft Bay & rivers).
Significant	Wind Gusts >= 34 knots and/or Waves >= 8 feet (>= 5 ft Bay & rivers).
Extreme	Wind Gusts >= 48 knots and/or Waves >= 12 feet (>= 8 ft Bay & rivers).













# Regional Marine Forecasts (wind in kt)

Maximum Wind Gust Forecast													
		12/	/17		12/18				12/19				
		Sı	ın			Mo	on		Tue				
	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	
CBBT	16*	21	35	39ቚ	35록	34	30→	24➡	26	28	26	26	
Cape Henry	14**	21	36┺	40 <b>%</b>	36록	35	31 <b>→</b>	24	28	29	28	26	
Chesapeake Light	13**	23	36	41	40ጜ	38₽	34➡	26	29	30	30	29	
Chincoteague Shoal	134	19	30	38┺	39ቚ	341	33	27 <b>→</b>	25	28	28	27	
Duck, NC	14	24	37 <b>™</b>	41	40	36₽	31 <b>→</b>	23	26	27	26	25	
Fenwick Shoal	16	20	24	40▲	41 <b>%</b>	36♠	38	30→	28	29	29	29	
HRBT	15*	21	32	36┺	32	34➡	30→	22	23	25	24	23	
JRB	14*	22	31	35	28	32❤	28➡	20	23	24	23	19	
New Point Comfort	14	20	31	38┺	34	34➡	30→	22	25	26	25	24	
Parramore Banks	13**	19*	31	38┺	38록	35 <b>1</b>	34➡	26	26	29	30	28	
Rappahannock Light	11*	18	30	39	33	34➡	30→	24➡	26	28	26	26	
Tangier	12**	18	30	39	33	34→	32➡	24→	27*	29	28	27	
Thimble Shoal	15*	21	34	38	34	33❖	30→	23	25	26	25	24	

<sup>\*</sup>Table values in kt

# Peak wind gusts will likely reach 45 to 50 kt Sunday evening into early Monday morning

Wave	Heigl	nt Fore	ecast

Wave Height Foreback												
		12	/17		12/18				12/19			
		Sı	ın		Mon				Tue			
	12am	6am	12pm	6pm	12am 6am 12pm 6pm				12am 6am 12pm 6pm			
CBBT	2.0	3.0	5.0	6.0	6.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Cape Henry	2.0	4.0	8.0	10.0	11.0	9.0	7.0	7.0	6.0	6.0	6.0	5.0
Chesapeake Light	2.0	5.0	10.0	14.0	15.0	13.0	10.0	8.0	8.0	8.0	8.0	7.0
Chincoteague Shoal	2.0	3.0	8.0	12.0	13.0	12.0	11.0	9.0	7.0	7.0	6.0	5.0
Duck, NC	2.0	5.0	9.0	11.0	11.0	10.0	8.0	6.0	6.0	6.0	6.0	5.0
Fenwick Shoal	3.0	4.0	7.0	11.0	13.0	14.0	12.0	10.0	8.0	7.0	7.0	7.0
HRBT	2.0	3.0	4.0	4.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0
JRB	1.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
New Point Comfort	2.0	3.0	4.0	5.0	4.0	4.0	3.0	2.0	2.0	2.0	2.0	2.0
Parramore Banks	2.0	4.0	8.0	11.0	12.0	11.0	9.0	8.0	7.0	7.0	6.0	6.0
Rappahannock Light	1.0	2.0	3.0	5.0	5.0	5.0	4.0	3.0	4.0	4.0	4.0	4.0
Tangier	1.0	2.0	3.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	3.0
Thimble Shoal	2.0	3.0	4.0	6.0	5.0	5.0	4.0	3.0	4.0	4.0	4.0	4.0

<sup>\*</sup>Table values in feet



<sup>\*\*</sup>Created: 8 am EST Fri 12/15/2023

<sup>\*\*\*</sup>Values are maximums over the period beginning at the time shown.

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- Strong southeast winds expected Sunday afternoon through Monday. Strongest wind gusts will be Sunday evening with 40-50 mph gusts expected near the coast and 30-40 mph gusts expected inland. Wind advisories are likely for coastal zones. Localized power outages possible.
- Potential for moderate coastal flooding in the middle/upper Chesapeake Bay and nuisance to minor flooding elsewhere. Highest tide would be Monday morning.
- Marine: Gale Watches are in effect across all marine zones Sunday afternoon through Monday morning. Strong southeast winds will gust 40-50 kt. Seas of 12-14 ft expected.





## Contact and Next Briefing Information

For NWS Wakefield, Virginia



→ NWS Wakefield Briefing



- → By 10:00 AM EST, Saturday, December 15
- → Method: Email



### **Disclaimer**

- → Information contained in this briefing is time-sensitive
- → See <u>www.weather.gov/akg</u> for the latest information



### Web

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