

NATIONAL WEATHER SERVICE'S NEW COASTAL WATERS FORECAST

Additional Wave Detail Enhancements

weather.gov/marine/wavedetail

What is happening?

- The National Weather Service (NWS) will provide an enhanced Coastal Waters Forecast (CWF), which will soon include detailed wave information, including height, direction, and period of individual wave systems.
- Wind and weather portions will remain the same.
- The point forecast format will remain unchanged.

Why is this change being made?

- For many years, the waves have been described differently in different regions of the country. This effort standardizes and enhances the description so that no matter where you are, you will get the same wave detail and terms.

Did the NWS ask for feedback before making this change?

- Yes. The NWS [solicited comments](#) from Sept 2022 through July 2023. Over 500 responses were received. 89% favored the change.

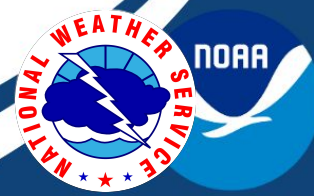
What will the new wave format look like?

- Wave period and direction will be added for any impactful wave systems.
- Wave group detail will feature a single significant wave height (not a wave range).

Old Format	New Format
Wind waves 3 to 5 ft. W swell 5 to 8 ft at 14 seconds.	Seas 6 to 9 feet. Wave Detail: West 5 feet at 6 seconds and west 8 feet at 14 seconds
Wind waves 2 ft or less. S swell 6 to 8 ft at 16 seconds.	Seas 6 to 8 feet. Wave Detail: South 8 feet at 16 seconds.
Wind waves 6 to 8 feet. Mixed swell W 4 to 6 feet at 12 seconds and S 2 ft at 18 seconds.	Seas 7 to 10 feet. Wave Detail: Northwest 8 feet at 8 seconds, west 5 feet at 12 seconds, and south 2 feet at 18 seconds.
Combined seas 7 to 10 feet dominant period 10 seconds.	Seas 7 to 10 feet. Wave Detail: Northwest 8 feet at 10 seconds and west 6 feet at 18 seconds.

Where can I find the operational Coastal Waters Forecast (CWF)?

- There are multiple ways of finding this forecast
- Visit weather.gov/marine or click the Watches, Warnings & Advisories (WWA) map from your local National Weather Service office website.
- You can hear the forecast on most marine band radios utilizing the
- WX Channels 1-7.



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What happened to the swell and wind wave?

- We recognize that many users have grown familiar and comfortable with these terms. These changes will be difficult for some. After many conversations internally and with users, however, we do believe that these changes will improve the safety and awareness for all users in the long run.
- Wind waves and swells are not always clearly defined, and the difference between the two can be blurry. This includes the common scenario of steep wind wave-like waves occurring in areas not experiencing wind. By removing these terms and providing height, period, and direction for all wave systems, some confusion and misrepresentation of the sea state will be alleviated.
- While the terms are going away, those types of waves will still be included in the forecast - just in a different order and described in detail (direction & period) instead of just labeled.
- Waves that are described as “swell” are longer periods (usually 10 seconds or more). Waves that are described as “wind waves” are shorter periods (usually 8 seconds or less). Looking at the wave height and period together will help users infer the wind waves and swell.

What else do I need to know?

Wave detail will be provided in the forecast out to at least 3 days.

- By default, wave groups will be ordered by their wave period. In some cases where the period is the same, the wave height will be considered next.
- Wave detail is optional for inland waterways, e.g., bays and sounds.

What if I still want the previous forecast wording?

- The CWF from the Watches, Warnings & Advisories (WWA) map can be displayed either by a point (known as “point-and-click”) or an area (known as “zone”).
- The area forecast will contain the new wave terminology.
- The point forecast does not currently contain the new detailed wave terminology. It is planned to be implemented in FY 2025.

Who do I contact if I have concerns with this change?

- Email NWS National Marine Program Manager, Melinda Bailey, at melinda.bailey@noaa.gov and/or marine.weather@noaa.gov.

More Information:

- Please visit: <https://www.weather.gov/marine/wavedetail>

