

# King tides: Next king tide event expected Jan. 10 to Jan 12

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The city also sends staff to watch for debris blockages during high flows under the city's bridges and for erosion around its sewage plant, located next to the mouth of the Necanicum River. McDowell said the river's flow comes right up to the edge of the plant, where a couple of years ago the city installed a barricade to protect against erosion.

## No storms, no problem

Werst and other local public works officials said king tides in themselves don't pose an immediate threat, unless combined with high winds and rain during storms. The effects of this week's king tides, unaccompanied by foul weather, were benign.

"On the Oregon Coast in the wintertime, we have sea level rise of 18 inches in the winter, because of various reasons," said Patrick Corcoran, a coastal hazards specialist with Oregon State University's Extension Service in Astoria. "When you combine that with king tides, that's when things start flooding."

In Warrenton, the king tide peaked at more than 10.7 feet in the Skipanon River Tuesday. Collin Stelzig, Warrenton's city engineer, said the city can experience tides of 11 feet amid storm surges multiple times of year, without issues.

"We're protected by levees, so we don't necessarily have an impact from these tides," he said.

Stelzig said the city has been part of the Federal Emergency Management Agency's National Flood Insurance Program since 1978 and faced tides as high as nearly 12.6 feet in 1983, but has never had a claim for flooding.

## Rising land, seas

The situation in the Pacific Northwest isn't as bad as Florida, where one-eighth of the homes could be underwater by 2100 if sea levels rise as predicted, according to real estate company Zillow.

"Our geography is different," said Meg Reed, a coastal shores specialist with the Oregon Coastal Management Program. "We don't have a lot of low-lying developed beaches like Florida."

Sea level rise is mitigated



Tuesday's king tide, which reached more than 10.7 feet in the Skipanon River around noon, rises up the levees surrounding the Astoria Regional Airport in Warrenton. City Engineer Collin Stelzig said the levees adequately protect Warrenton from much higher water levels than this week's king tides brought.

Edward Stratton/The Daily Astorian



Rising tidal surges, like the 10-plus-foot king tides that hit the Astoria-Warrenton area Monday through Thursday, can help hydrate restored wetlands like Daggett Point in the foreground, but can put pressure on diked land.

Edward Stratton/The Daily Astorian

on much of the West Coast by the Juan de Fuca plate sliding under the North American plate, causing a tectonic uplift of between 1.5 and 3 millimeters per year. But at some point, Reed said, sea level rise will likely outpace the tectonic uplift, because of exponentially increasing warming.

According to a 2012 report from the National Research Council, sea levels on the West Coast could rise 3 to 9 inches by 2030, and 7 to 19 inches

by 2050, relative to 2000 levels. According to the report, the rate of global sea level rise increased from about 1.7 millimeters per year during the 20th

century to 3.1 millimeters per year since 1993.

"We know that we have a very dynamic winter climate, so even a little bit of sea level rise means those storms will get more intense," Reed said, adding chronic issues like erosion and landslides could worsen.

Add to the list of problems a Cascadia Subduction Zone earthquake, which the state Department of Geology and Mineral Industries estimates could sink the land 3 to 7 feet, immediately reversing hundreds of years of tectonic uplift.

Reed said improving resiliency to tsunamis will also help with issues of rising sea levels and erosion. She previously worked as a coastal fellow with the National Oceanic and Atmospheric Administration for the Coastal Management Program, researching areas of the coast that could benefit from shore armoring.

Her successor in the position, Julie Sepanik, is looking at the threats facing coastal and estuarine infrastructure from king tides.

## Tracking change

Reed's department, the local Surfrider Foundation chapter and the Oregon Coastal Shores Conservation Coalition's CoastWatch group oversee the Oregon King Tides Photo Initiative, a citizen science effort to document the reach of tides over time.

"Because our impacts of sea level rise are not immediate, we have a little more time to rethink how we're doing development," she said.

Reed said photos from the project have been used by state transportation officials looking at areas of erosion like Beverly Beach, where U.S. Highway 101 runs close to a quickly eroding beachfront cliff.

The project asks people in coastal and estuarine areas to take pictures of areas facing erosion and flooding, create contrasting shots at king and regular high tides and submit the photos online.

The next king tide event hits Jan. 10 to Jan. 12. Afterward, Reed said, organizers are planning end-of-season parties, including one in Seaside, to review all the photos.

For more information on the program and a schedule of tides, visit [www.oregonkingtides.net](http://www.oregonkingtides.net)

## Lead testing: Database allows public to look up lead test results

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It doesn't account for any expenses associated with mitigation of lead contamination.

The widespread testing followed widespread media coverage of a scandal in Portland Public Schools over lead in drinking water that went unreported.

In August, the state Board of Education — at the behest of Gov. Kate Brown — approved a rule that requires school districts to submit a plan for testing for lead in water and other toxins in school environments and to report any results to the public. The rule doesn't

require actual testing.

Education and health authorities unveiled a database (<http://arcg.is/2h8WgK5>) earlier this month that allows the public to look up lead test results.

Lawmakers have said they might consider legislation in 2017 that would require districts to test for lead in water.

New York recently enacted a law requiring schools to test for lead, report results to the public and develop a plan for reducing exposure to the toxin.

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## Lee: 'I just feel like it's a big world, and life is short'

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"I've worked really hard over the last eight years," Lee said. "It's a very demanding job. It's time for me to consider some other opportunities."

Lee said he is hopeful someone will want to take over Astoria's only bike shop, which he prides on surviving the Great Recession, competition from bigger stores and the internet because of customer service, unique products and repairs.

"I still think this is a viable business for someone," he said. "It's a rewarding small business. We've shown major

growth since the (downturn) in '08.

"There's always going to be a need for people who fix things."

Part of selling Bikes and Beyond, he said, is to focus on his remaining time with the county commission. Among his other appointments, Lee is chairman of the board for the Columbia River Estuary Study Taskforce, Oregon Coastal Zone Management Association and Northwest Oregon Housing Authority.

"I like to think I run a good, fair meeting," Lee said as to why he's become the head of so many

governing bodies.

Lee said eight years is a long time for public service. "There's a lot of really great people who can step up to the plate and be county commissioners here," he said.

Dirk Rohne, who served in his last meeting Wednesday after eight years as a county commissioner, echoed Lee's views. "Sometime it's time to step aside to allow others the opportunity to serve," he said.

After leaving the commission, Lee said, he would like to travel with his father, William, whom he credits for his work ethic.

Born in Ellensburg, Wash-

ington, and raised in the south Puget Sound region, Lee attended Evergreen State College. He has worked as a technician for the Washington Department of Fish and Wildlife, a fisherman, on farms and as a mechanic in boatyards, motorcycle and bicycle shops.

"I've got about a seven- to 10-year range on most of the things in my life," Lee said of his endeavors, including the county commission and managing Bikes and Beyond.

"I just feel like it's a big world, and life is short," he said. "There's always new opportunities, and I've always had a sense of adventure."

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