

King Tides by Rebecca Lexa

In the beginning of 2020, the Washington and Oregon coasts saw some of their biggest waves in years. Some of this was due to winter storms, which often create turbulence in the ocean. But the timing was also right for king tides, which also draw the water further upshore.

A king tide is caused when the sun, moon and earth are so aligned as to magnify the gravitational pull on the ocean. Despite the weather being colder due to axial tilt, the earth is the closest to the sun in January compared to the rest of the year, which means the sun has a greater effect on the earth. Add in a full or new moon, and the tides are amplified even more.

All these factors combined to create impressive but dangerous conditions along the coast. However, these tides are also harbingers of a potentially devastating future. As climate change continues to raise the average temperature of the planet, it is causing ice in the polar regions to melt. More melting ice means more liquid water, which leads to the level of the ocean rising. Moreover, climate change also wreaks havoc on weather systems, causing more severe storms and disruptions in ocean currents. These currents normally help regulate climate and weather patterns, but imbalances lead to greater climate chaos.

So these enormous waves running further inland may become the norm in years to come. Next week we'll explore how climate change may affect Willapa National Wildlife Refuge and other local ecosystems.