

# The King County Sea Level Rise Risk Area

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This Frequently Asked Questions (FAQ) document provides more information on sea level rise and King County's Sea Level Rise Risk Area requirements for Vashon-Maury Island.

## Why is King County concerned about sea level rise?

Sea level rise is one of many impacts associated with climate change. Sea level rise can cause damage to public and private buildings and infrastructure, create public health and safety hazards, reduce public access to beaches, and negatively impact our shoreline ecosystem in ways that reduce the likelihood of recovering salmon. Taking steps to reduce the impacts of sea level rise on the built and natural environment will produce a more climate-resilient shoreline and ensure that public and private infrastructure in these areas, which will be in place for decades, is properly sited and constructed.

## What causes sea level rise?

Several factors contribute to sea level rise globally and locally. Major global scale factors include rising air and ocean temperatures, which cause [thermal expansion](#) of the ocean and [ice melt](#) from Greenland, Antarctica, and mountain glaciers. An important local factor is long-term changes in vertical land elevation (i.e., uplift or subsidence) associated with [plate tectonics](#). To learn more about global sea level rise, visit "[Climate Change: Global Sea Level](#)" (National Oceanic and Atmospheric Administration).

## How much has sea level changed in our area?

Sea level has risen more than nine inches in Seattle since 1899, as [measured](#) at NOAA's tide gage at Coleman Dock.

## How much sea level rise is projected for Vashon-Maury Island?

Sea level on Vashon-Maury Island is projected to rise approximately one to two feet by mid-century and two to five feet by 2100, under a high greenhouse gas scenario.<sup>1</sup> How much sea level rise we experience, and how quickly we experience that rise, will depend on changes in global greenhouse gas emissions.

## What are the impacts of sea level rise?

Sea level rise impacts include:

- Increased coastal flooding and storm surge, including permanent inundation of low-lying areas;
- Increased shoreline and bluff erosion in areas that experience more wave action;
- Increased saltwater corrosion; and
- Habitat loss where bulkheads prevent shoreward movement of coastal habitat in response to sea level rise (a problem known as "coastal squeeze").

The extent to which these impacts affect a specific location will vary depending on site-specific factors, including topography, wave energy, and proximity of infrastructure to the shoreline. The rate of sea level rise will also affect how quickly we experience these impacts.

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<sup>1</sup> From Washington Coastal Resilience Project online data tool, <http://www.wacoastalnetwork.com/washington-coastal-resilience-project.html>.

## What is the Sea Level Rise Risk Area?

As part of the 2020 update to the [King County Comprehensive Plan](#), King County adopted a new Sea Level Rise Risk Area that sits adjacent to the current 100-year coastal floodplain (also known as the coastal high hazard area) on Vashon-Maury Island. The Sea Level Rise Risk Area extends landward of the 100-year coastal floodplain to the point where the elevation of the land is equal to three feet above the adjoining “base flood elevation” (BFE) (Figure 1). BFE is the water level associated with a one percent annual chance flood event, inclusive of wave run-up (in the case of coastal floodplains). BFE elevations are shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Many shoreline parcels on Vashon-Maury Island already sit at least partially within the 100-year coastal floodplain. Buildings within the FEMA 100-year floodplain are required to be built to specified flood protection standards.

## Why is the Sea Level Rise Risk Area needed?

The Sea Level Rise Risk Area recognizes that the boundary of the 100-year coastal floodplain is moving inland with sea level rise. At the same time, we know that FEMA coastal floodplain mapping methods do not take projected sea level rise into account and that the time between FEMA mapping updates may be quite long (e.g., two decades or more). As the 100-year coastal floodplain boundary moves inland, buildings that were previously just outside of the 100-year coastal floodplain will now be in the floodplain but will not have been built to a standard to protect against the risk of damage from coastal flooding. The Sea Level Rise Risk Area allows us to get ahead of sea level rise impacts over time, gradually increasing the number of buildings resilient to current and future coastal flood risks.

### King County Coastal Floodplain Regulations with the Sea Level Rise Risk Area

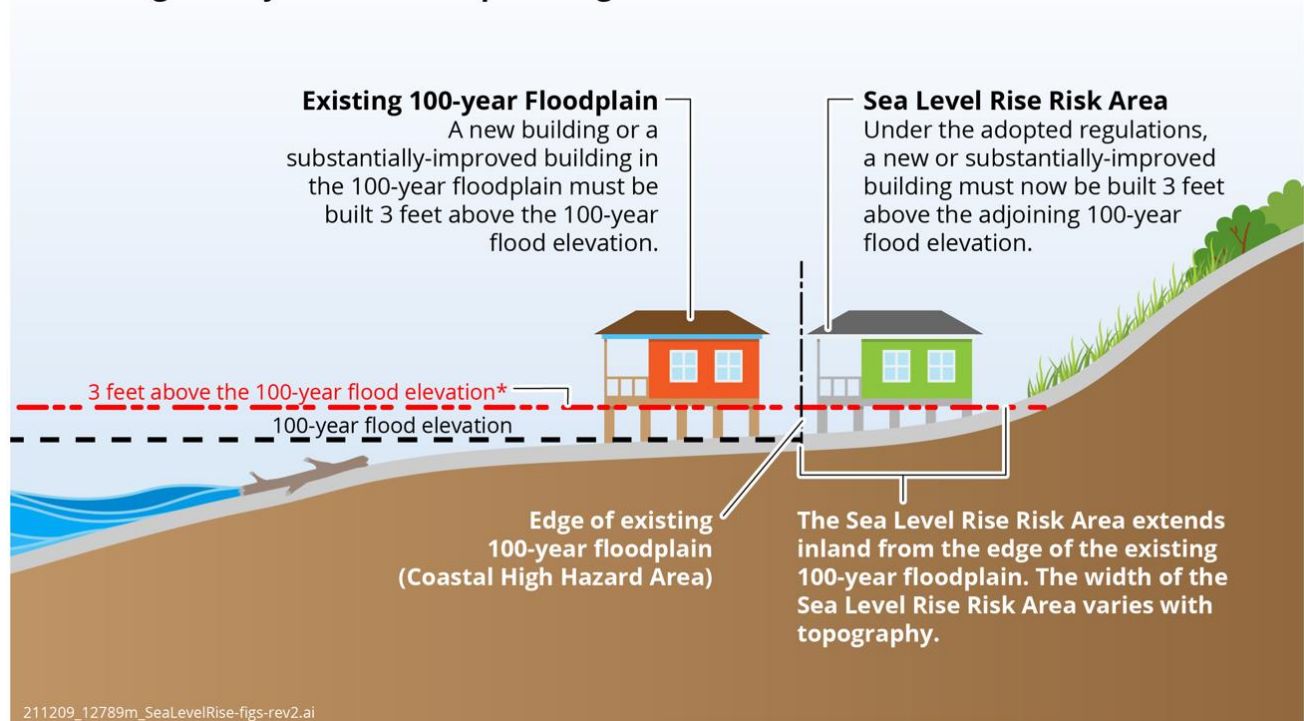


Figure 1. King County Sea Level Rise Risk Area. This figure illustrates the boundary and associated building elevation requirements of the King County Sea Level Rise Risk Area, which applies only to Vashon-Maury Island. Additional provisions related to bluff setbacks and groundwater wells are not shown here. \*The 100-year flood elevation varies by location and specific coastal hazard zone. For more information on where you can view the 100-year coastal floodplain maps, visit: <https://kingcounty.gov/floodmaps>.

## What is required in the Sea Level Rise Risk Area?

The following provisions relevant to sea level rise and the Sea Level Rise Risk Area are now in effect. Please refer to the King County Code (K.C.C.)<sup>2</sup> for specific requirements related to each of these provisions:

- *Building elevation.* Consistent with existing requirements in the 100-year coastal floodplain, all new, substantially improved, or converted buildings in the Sea Level Rise Risk Area need to be built to at least three feet above BFE for the adjoining 100-year coastal floodplain. (K.C.C. 21A.23.010)
- *Groundwater wells.* No new groundwater wells are permitted within the 100-year coastal floodplain. New wells in the Sea Level Rise Risk Area must include a surface seal to prevent saltwater contamination from sea level rise conditions anticipated to occur over the next 50 years. Owners of new wells in the Sea Level Rise Risk Area must also test for chloride levels in accordance with Washington state Department of Health protocols. (K.C.C. 21A.24.316)
- *Steep slope setbacks.* The minimum setback requirement for new or substantially improved structures in steep slope hazard areas that extend into the existing 100-year coastal floodplain or Sea Level Rise Risk Area is increased to 75 feet (from 50 feet). This setback can be modified based on provision of a site-specific geotechnical study. That study must now account for sea level rise conditions anticipated to occur over the next 50 years. (K.C.C. 21A.24.310)

## Why three feet above Base Flood Elevation for the Sea Level Rise Risk Area?

King County currently requires new, substantially improved, or converted buildings to be built to at least three feet above BFE in the 100-year coastal floodplain. The Sea Level Rise Risk Area simply extends this requirement until the land elevation is equivalent to three feet above BFE of the adjacent flood zone. This is roughly equivalent to preparing for two to three feet of sea level rise.

## Is federal flood insurance required if my property is in the Sea Level Rise Risk Area?

Flood insurance is *not* required for buildings located solely within the Sea Level Rise Risk Area. Flood insurance *is* required, per federal requirements, for any buildings that are fully or partially in the 100-year coastal floodplain as shown on the Flood Insurance Rate Maps.

## Where can I find a map of the Sea Level Rise Risk Area?

You can view the Sea Level Rise Risk Area in [King County iMap](#). The layer is located in the /Flooding info layer list. To see if a parcel is included in the Area, enter an address or parcel number in the [King County Districts and Development Conditions report](#) site. Look for “Sea Level Rise Risk Area” in the “King County planning and critical areas designations” section of the report. If you don't know your parcel number, use [King County's Parcel Viewer](#) to find it.

## Questions?

Contact the [King County Permitting Division](#) (206-296-6600) or King County's Climate Preparedness Program Manager (Lara Whitely Binder, 206-263-0825, [lwbinder@kingcounty.gov](mailto:lwbinder@kingcounty.gov)).

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<sup>2</sup> [www.kingcounty.gov/code](http://www.kingcounty.gov/code)