PUGET SOUND
National Estuary Program

PLANNING FOR SEA LEVEL RISE IN PUGET SOUND: GUIDELINES, MAPPING, AND WAVES

The science on sea level rise is changing rapidly. At the same time, it's not always clear what to make of new results, nor exactly how they translate to the real world. This project builds on existing efforts to develop products and research that advance our region's capacity to plan for the impacts of sea level rise.

What we're doing

We'll be doing three things with this project:

- Developing guidance for incorporating sea level rise in restoration planning.
- Making maps of sea level rise impacts
- Modeling differences in wave risk across Puget Sound

WHY IS THIS ISSUE IMPORTANT

Even without sea level rise, coastal flooding is a huge issue in our region – for both people and nature. Sea level rise makes this problem more acute. If we plan for these changes we can work towards a future that is more resilient.

WHAT YOU CAN DO

This project is focused on supporting restoration planning in Puget Sound. If you're involved in this work, we would love to hear your perspective on how to integrate climate change in planning. Over the course of the project, we will also be looking for feedback on our mapping work. Feel free to get in touch.

ABOUT THE ORGANIZATIONS

WA Sea Grant is dedicated to improving the translation of research and scientific information into knowledge for use in the marine environment.

Since 1995, the Climate Impacts Group has provided the fundamental scientific understanding, data, tools, and guidance needed to help decision makers understand, prepare for and manage local climate impacts.

FOR MORE INFORMATION

Guillaume Mauger, UW Climate Impacts Group
gmauger@uw.edu, 206-685-0317

PUGET SOUND
National Estuary Program

PLANNING FOR SEA LEVEL RISE IN PUGET SOUND: GUIDELINES, MAPPING, AND WAVES

This project builds on the NOAA-funded Washington Coastal Resilience Project (WCRP): a three-year effort to improve coastal risk projections, provide better guidance for land use planners and strengthen capital investment programs for coastal restoration and infrastructure.

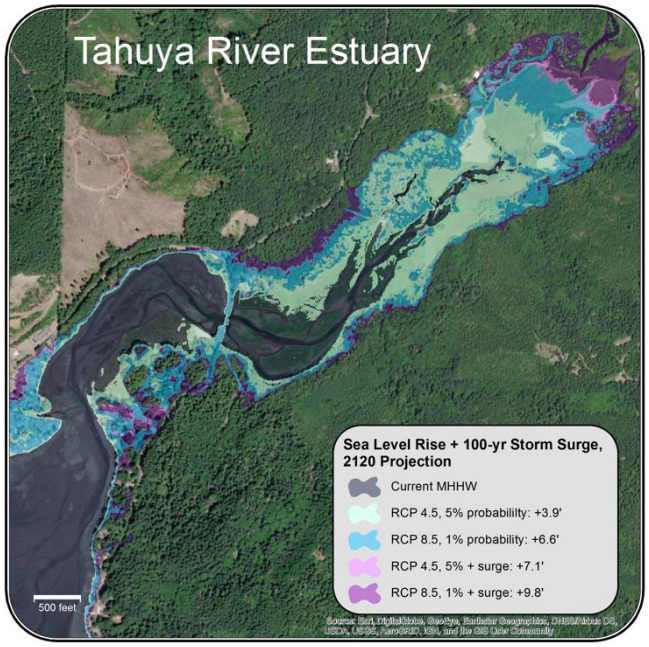
Project outcomes

1. **Restoration Guidelines**, designed to assist restoration practitioners with identifying SLR impacts relevant for specific restoration actions.
2. **Mapping Guidelines**, to support Geographic Information System (GIS) professionals in preparing maps that show the extent of relative sea level rise inundation.
3. **Relative Wave Exposure**, providing data and a report describing the relative exposure to waves along the coastlines within the Salish Sea.

Teaching Restoration to Scientists

This project leaned heavily on a wide array of restoration practitioners and designers, who took the time to share their experiences and ideas.

Leque Island. Source: https://secure.rco.wa.gov/prism



Example sea level rise map, included with Mapping Guidelines.

FUTURE OPPORTUNITIES

Our project provides a number of key tools to help managers use sea level rise projections in restoration planning and design. Through the course of our work, one of the recurring themes was a need to develop a library of case studies, in which restoration professionals and scientists document the experience of incorporating climate change in the various phases of restoration projects. These would provide concrete examples of adaptation while also identifying additional data, modeling, and guidance that might be useful.

PROJECT WEBSITE

http://www.wacoastalnetwork.com/washington-coastal-resilience-project.html

PUGETSOUND PARTNERSHIP · EPA United States Environmental Protection Agency · Washington Stormwater · Washington State Department of Natural Resources · Washington Department of Fish and Wildlife · Washington State Department of Health · Northwest Indian Fisheries Commission · Department of Ecology State of Washington · Department of Commerce Innovation is in our nature.