

NOAA Coastal Management Sea Level Rise Adaptation Fellow (2022-2024)



SEA LEVEL RISE IMPACTS

Sea level rise in Oregon will lead to:

- Higher tide levels
- More dramatic king tides
- Increased coastal flooding and erosion
- Increased tsunami risk

PROJECT OVERVIEW

Carl Hendrickson has joined the Oregon Department of Land Conservation and Development (DLCD) as the NOAA Coastal Management Fellow focused on sea level rise adaptation planning. His project will involve assisting in the completion of the department's Sea Level Rise Guide and subsequent rollout with coastal communities in Clatsop County. The Guide is a 3-part tool to help communities visualize, prioritize, and develop solutions for sea level rise now and into the future.

PROJECT PURPOSE & AUDIENCE

This fellowship project is meant to provide direct capacity to advance sea level rise adaptation planning at the local level. The fellow will work with planning and public works staff, property owners, organizations, developers, and other public entities to understand the effects of sea level rise and use the tools within the Guide to plan for a resilient and equitable climate future.

PROJECT GOALS

- Coordinate comprehensive and inclusive community outreach efforts regarding project goals, expectations, and outcomes.
- Conduct a sea level rise vulnerability assessment of local infrastructure and planning capacity.
- Create a plan to implement a sea level rise adaptation strategy, with attention paid to planning capacity and feasibility.

TIMELINE

The fellowship position runs for 2 years from August 2022 – July 2024.

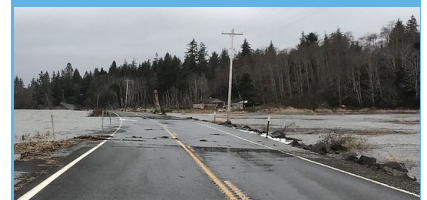
- Fall 2022 – Winter 2023: Release Guide, begin working with project partners, community engagement
- Spring 2023 – Summer 2023: Conduct sea level rise vulnerability assessment with Clatsop County and the City of Cannon Beach, and Oregon Parks and Recreation Department
- Fall 2023 – Winter 2024: Develop adaptation strategies
- Spring 2024 – Summer 2024: Prepare sea level rise action plans

Questions? Email carl.hendrickson@dlcd.oregon.gov

Drafted September 2022

ADAPTATION & MITIGATION

- Climate adaptation focused city planning and development approaches
- Shoreline protection guidance and assistance
- Coordinated and informed response to sea level rise
- Long term planning strategies



Highway 101, Astoria, OR
during a king tide.
Photo: Lee Cain, 2022

Fostering Local Capacity for Sea Level Rise Adaptation Planning



SEA LEVEL RISE IMPACTS

PROJECT OVERVIEW

DLCD has developed guidance and tools, the **Sea Level Rise Guide**, to provide capacity and advance sea level rise adaptation planning at the local level. The Guide is a three-part toolkit to help communities **visualize, prioritize, and develop solutions for sea level rise** now and into the future. The tools are: an online mapper; vulnerability assessment spreadsheet, and guidance on a suite of planning and adaptation strategies.

PROJECT PURPOSE & AUDIENCE

The Guide provides capacity to advance sea level rise and climate adaptation planning at the **local government level** using existing and emerging data and resources. It is intended to assist planning staff, property owners, organizations, developers, and public entities in understanding the effects of sea level rise, and in **planning for a resilient and equitable future under climate change**.

TOPICS

The Guide contains three (3) tools:

1. **Sea Level Rise Impact Explorer:** a visualization tool for current and projected erosion, high tide, storm surge, sea level rise, and flooding within estuaries and the outer coast.
2. **Prioritization tool** to assess multiple community populations and assets (schools, roads, housing, parks, etc.) based on different risk factors (exposure, risk type, community users, vulnerability, etc.) determined by the community.
3. **Written toolkit** of sea level rise communication, adaptation, and planning strategies and techniques for communities to consider and use to adapt to their specific sea level rise risks.

TIMELINE

DLCD released the Guide in **October 2022** and will work directly with communities to navigate the process and prepare to implement strategies. The Guide will be updated regularly to include best available data, information, and strategies.

Questions? Email carl.hendrickson@dlcd.oregon.gov

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Potential Impacts:

- North and south coast currently at lower risk from SLR due to seismic uplift
- %11-32 of buildings at risk from coastal erosion in Clatsop County

Source: Oregon Natural Hazards Mitigation Plan, 2020



Coquille Point, Bandon, OR
during a king tide.
Photo: Rick Poecker, 2020