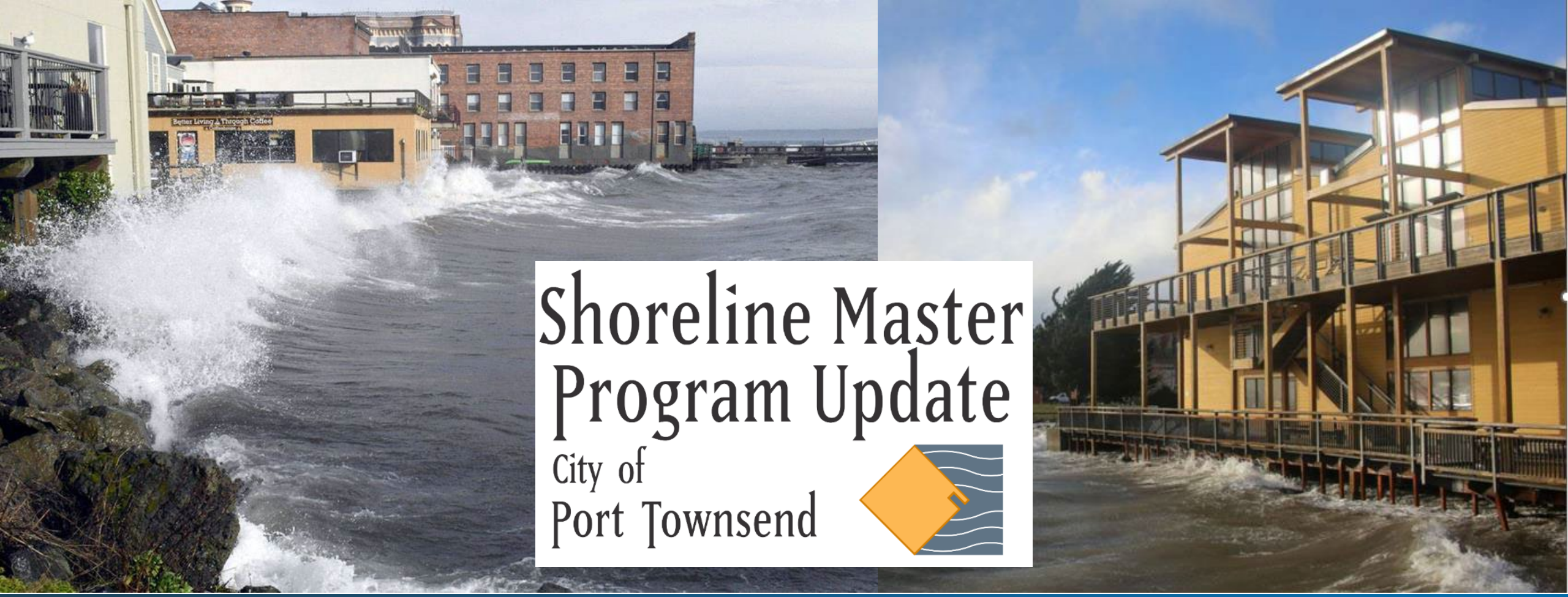


City of Port Townsend Waterwalk / SMP Update

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Science + Planning + Design

Project Website and Sponsor



Visit the Project Website:

https://engage.ahbl.com/port-townsend-smp-update

DEPARTMENT OF ECOLOGY
State of Washington

Thank you to the Department of Ecology's Shoreline Competitive Grants Program

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Agenda

• DOORS OPEN // WELCOME!	5:30 pm
• PRESENTATION	5:40 pm – 6:30 pm
• AUDIENCE POLL & DISCUSSION	6:30 pm – 6:45 pm
• ADDITIONAL Q&A	est. 6:45 pm
• CLOSE OUT & THANK YOU	7:30 pm

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Introductions

City of Port Townsend

- Emma Bolin, AICP – Director of Planning and Community Development
- Jenny Murphy – Planner
- Judy Surber – *Recently Retired!* Planning Manager

AHBL (Consultant)

- Wayne E. Carlson, FAICP
- Nicole Stickney, AICP

Herrera Environmental (Consultant)

- Jeff Parsons, PhD, PE

Project Overview

- **Periodic review and update of Shoreline Master Program (SMP)**
  - Largely procedural and complete
- **Summary of existing climate change information and resiliency plans, particularly the Port's Waterwalk project**
  - City of Port Townsend (2023)
  - Port's Waterwalk 30% design documentation
  - NOAA (2022)
- **Propose adaptation actions for City portion of Waterwalk**
  - A range of ideas will be presented here – but just beginning
- **Updating SMP (code) to accommodate publicly preferred adaptation strategies**
  - Requires input from the public
  - TBD

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Schedule Overview

- Produce Quality Assurance Project Plan (QAPP)
  - Complete
- Produce Summary Memo
  - Draft circulated for public review
- Engage public
  - Marine Resource Committee (12/3/24)
  - Climate Action Committee (12/11/24)
  - This meeting!
- Revise Shoreline Master Program (SMP)
  - Spring 2025
- Shoreline Master Program (SMP) Local Adoption
  - June 30, 2025 (Ecology accepts the SMP following adoption)

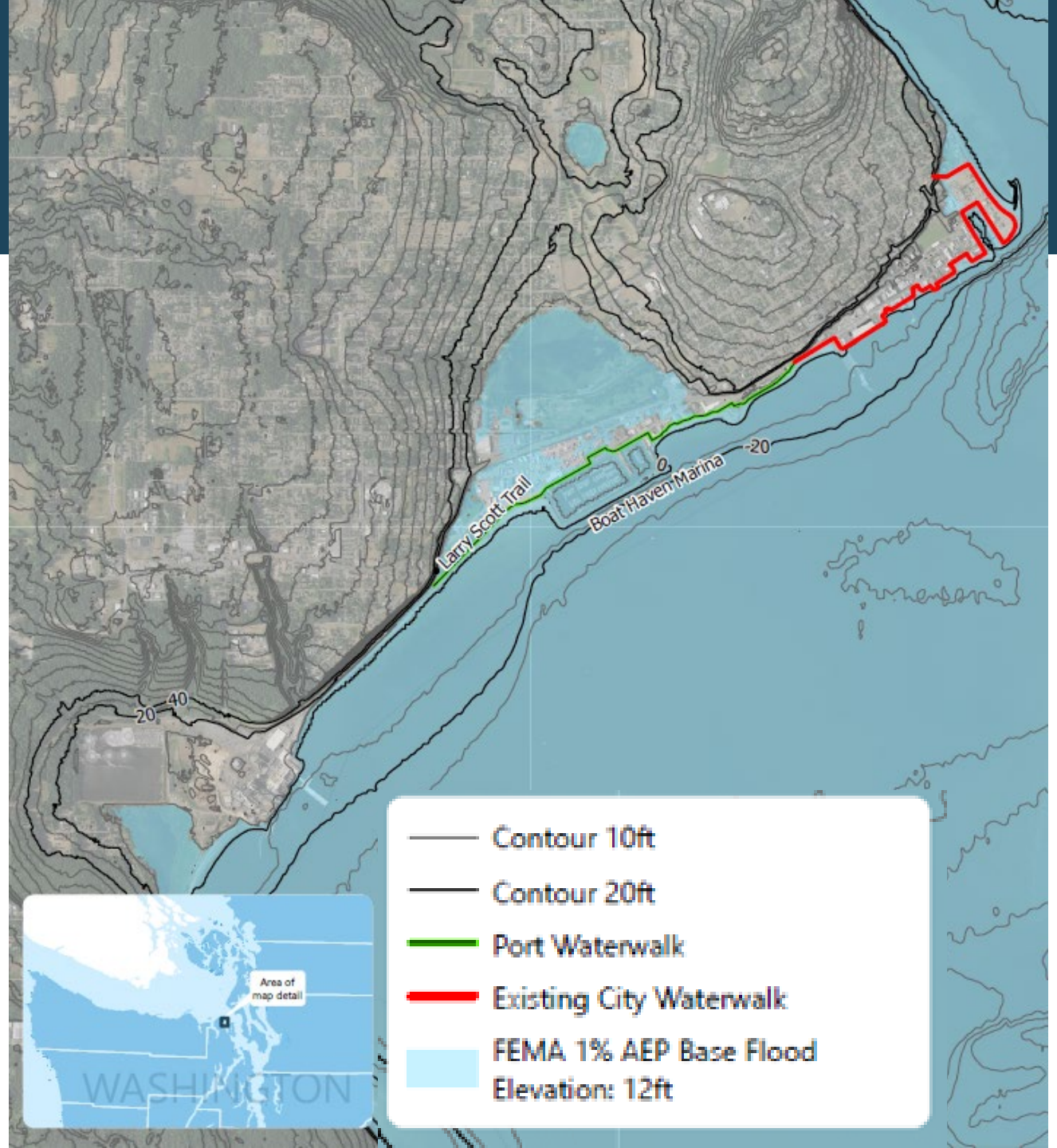
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Preliminary Findings

- **City of Port Townsend**
  - Total water level analysis
  - Planning horizon – 75 years (2100) – RCP 8.5 (Business-as-usual GHG scenario)
  - Estimated storm surge (3.1 feet) & wave runup (2.5 feet) from literature & limited observations, respectively
  - 3 to 5 feet of sea level rise
  - Result: Planning elevations *16.0 feet NAVD88*, *18.0 feet NAVD88* (low probability)
- **Port Waterwalk Design**
  - Total water level analysis
  - Modeled waves with Delft 3D
  - Miller et al. (2018) for water level (sea level rise and storm surge)
  - 50-year design life (2075) – RCP 8.5 (Business-as-usual GHG scenario)
  - Result: Design elevation *12.6 feet NAVD88* – with modest overtopping in extreme events
- **Other climate change analyses(federal)**
  - NOAA (2022) high projection of sea level rise of 6.5 feet for 2100
- **Need input from the general public as to design life, objectives for any City facility**
  - Phased approach?

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Study Area


Larry Scott Trail
Boat Haven Marina
0
-20
20
40
Area of map detail
WASHINGTON
Contour 10ft
Contour 20ft
Port Waterwalk
Existing City Waterwalk
FEMA 1% AEP Base Flood Elevation: 12ft

Port Waterwalk Design Approach (high level)

- **Very early in the design process**
- **Uses total water level mentioned previously**
- **No formal survey – subject to change**
- **Mix of approaches along the entire alignment**
  - West end – mostly a soft shore approach
  - Walls mostly in Boat Haven itself
  - Mix of approaches east of Boat Haven – least programmed, formalized
- **Nearly all design features above OHWM, but within shoreline management area**
- **Design elevation of Waterwalk is below the highest planned water levels by Port's estimation with managed / designed-for overtopping in the most extreme events**

Port Waterwalk Design



Port Waterwalk Design

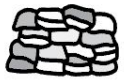


Possible City resiliency measures

- **Four classes of measures**
- **Can be performed in conjunction with one another**
- **Could be done in sequence as part of a phased approach**

Temporary


FLOOD GATES


SAND BAGS


SEAL STREET GRATES


PORTABLE BARRIERS

Green


LIVING SHORELINE


FLOODABLE LANDSCAPE


STORMWATER MANAGEMENT

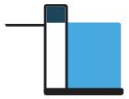

ELEVATED STRUCTURES

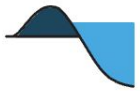

FLOOD PROOFING

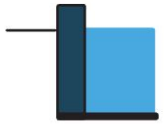

WET FLOOD PROOFING


RETROFIT DOCKS

Structural


RAISED WALL

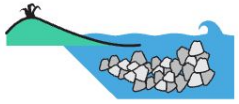

BERM


WALL


ELEVATED PATH


ELEVATED STREET


RAISED PLANTERS

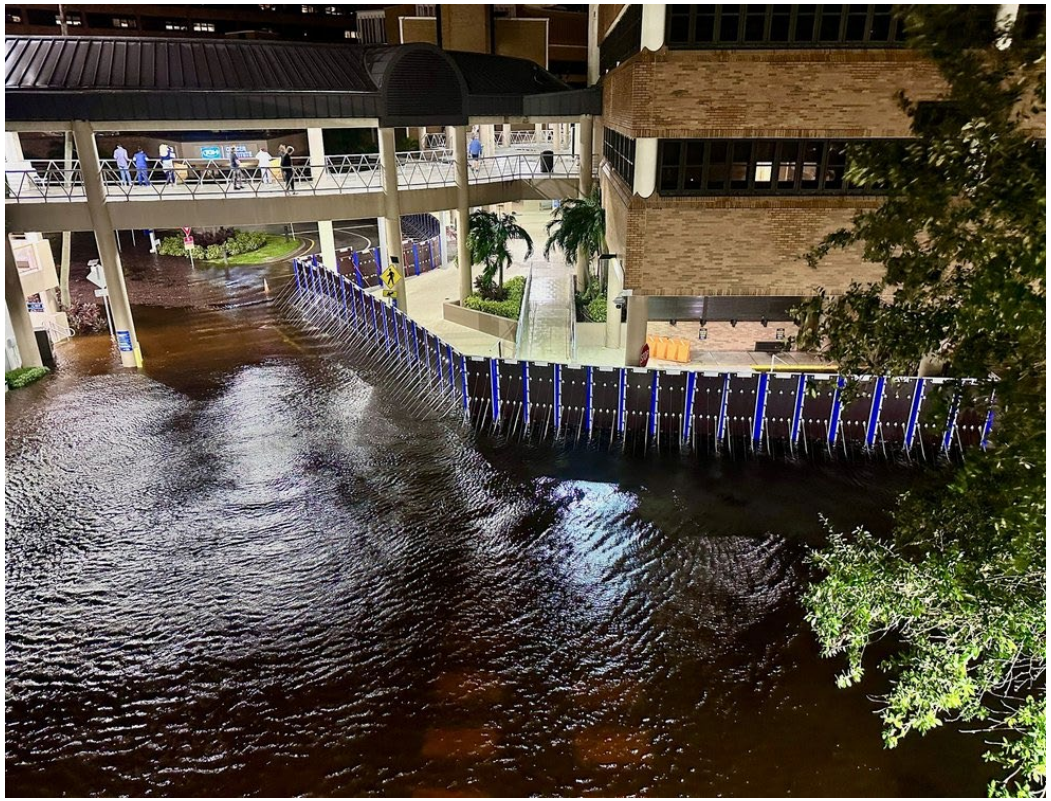

BREAKWATER

Retreat


MOVING BUILDINGS

Temporary Measures

- **Require some level of prediction**
  - This is possible and improving with some relatively new tools, particularly compared to other locations in Puget Sound
- **Can be effective if procedure is developed for implementation**
  - Procedures do not currently exist
- **Best for stillwater inundation, which is less of an issue in Port Townsend (right now)**
- **Can serve as a complement to other measures**
- **Not really addressed by SMP**
  - Should it be?



Temporary



FLOOD GATES



SAND BAGS



SEAL STREET GRATES



PORTABLE BARRIERS

Green Measures

- **Already acceptable in SMP**
  - Does not require changes to existing SMP
- **Can be effective if properly designed**
- **Typically requires space that is not available, particularly in Historic District**
- **Can also alter historic character**
  - Particularly true for building elevations
- **Possible at Point Hudson, with a combination of approaches**



Green



LIVING SHORELINE



FLOODABLE LANDSCAPE



STORMWATER MANAGEMENT



ELEVATED STRUCTURES



FLOOD PROOFING



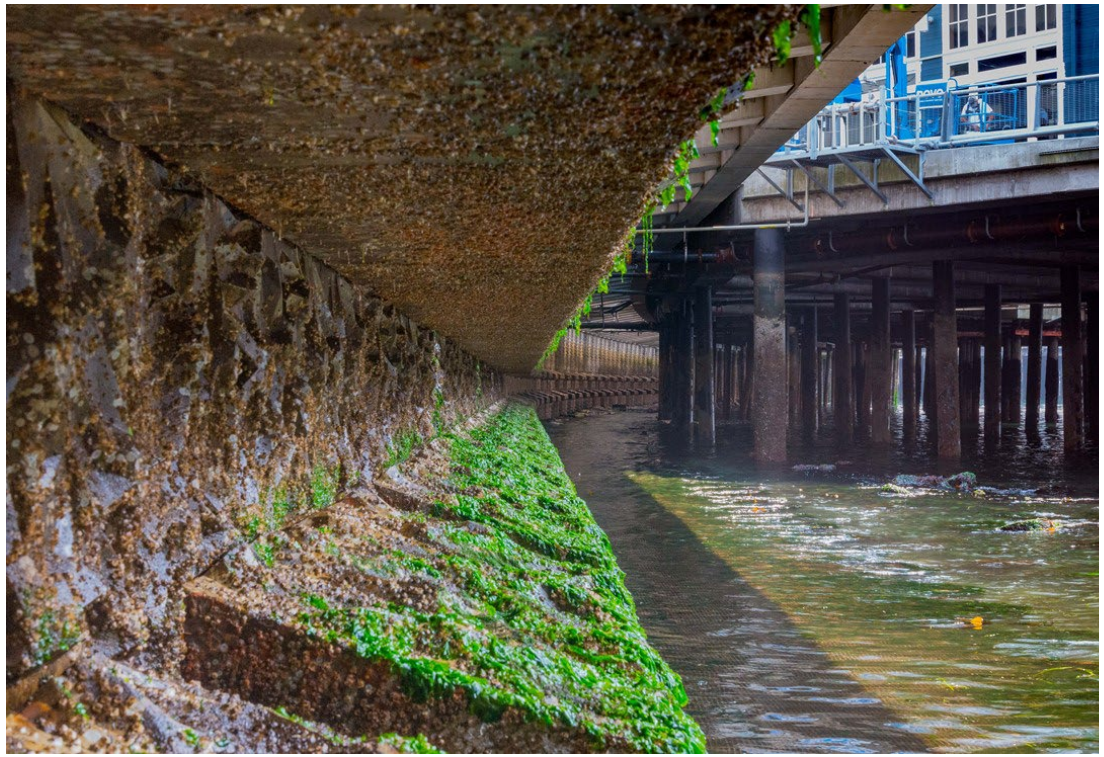
WET FLOOD PROOFING



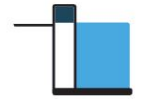
RETROFIT DOCKS

Structural Measures

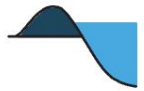
- **Already addressed in the current SMP**
  - Treated generically
  - Implicitly assumed to be below OHWM
  - SMP could be revised to facilitate measures above OHWM
- **Can be highly effective**
- **Environmental impacts can be minimized if placed above OHWM**
  - Port design is a good example
- **Can require numerous time-consuming permits from others other than the City**
  - Walls/fill below OHWM
  - Breakwaters



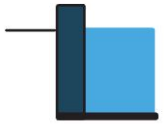
Structural



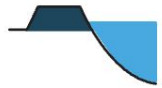
RAISED WALL



BERM



WALL



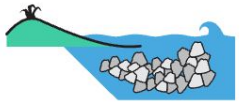
ELEVATED PATH



ELEVATED STREET



RAISED PLANTERS



BREAKWATER

Retreat Measures

- **Numerous federal guidance documents emphasize the importance of this approach**
- **Relatively straightforward**
- **Highly effective**
- **Enables ecological restoration and reprogramming of the shoreline**
- **Obvious impacts to the cultural and historic character of the City**
- **Not addressed in SMP**
  - Should it be?



For Port Townsend: Where would you move it to?

Scoring

Measure	Efficacy	Cost	Access	Environmental Impact
Flood Gates	4	3	4	3
Sandbags	3	4	4	3
Sealed Street Grates	1	5	4	4
Living Shorelines	3	3	5	5
Floodable Landscapes	3	2	5	5
Stormwater Management	1	1	5	5
Elevated Structures	4	2	5	3
Retrofit Docks	4	3	5	4
Walls and Berms	5	1	1	1
Raised Planters	5	1	1	1
Elevated Streets/Trails	5	1	3	1
Breakwaters	1	1	3	4
Moving Buildings	5	1	5	5

Possible City alignments



Questions?

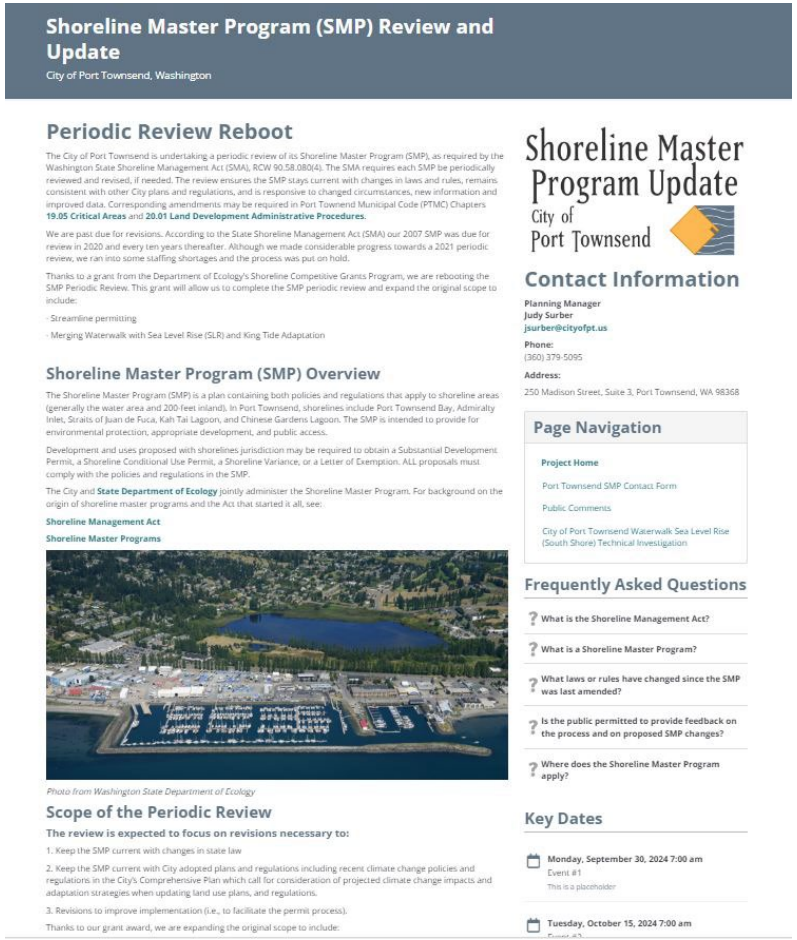
- How familiar are you with Sea Level Rise studies for Port Townsend?
- How familiar are you with the Port Project?
- What time horizon should we be covering and why?

  (Port is 2075, City 2100). Pros and cons of each? Alternatives?
- What are your thoughts on potential strategies for Sea Level Rise adaptation?
- What are your concerns?
- Views on retreat?

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Project Webpage

https://engage.ahbl.com/port-townsend-smp-update



Shoreline Master Program (SMP) Review and Update

City of Port Townsend, Washington

Periodic Review Reboot

The City of Port Townsend is undertaking a periodic review of its Shoreline Master Program (SMP), as required by the Washington State Shoreline Management Act (SMA), RCW 90.58.080(4). The SMA requires each SMP be periodically reviewed and revised, if needed. The review ensures the SMP stays current with changes in laws and rules, remains consistent with other City plans and regulations, and is responsive to changed circumstances, new information and improved data. Corresponding amendments may be required in Port Townend Municipal Code (PTMC) Chapters **19.05 Critical Areas** and **20.01 Land Development Administrative Procedures**.

We are past due for revisions. According to the State Shoreline Management Act (SMA) our 2007 SMP was due for review in 2020 and every ten years thereafter. Although we made considerable progress towards a 2021 periodic review, we ran into some staffing shortages and the process was put on hold.

Thanks to a grant from the Department of Ecology's Shoreline Competitive Grants Program, we are rebooting the SMP Periodic Review. This grant will allow us to complete the SMP periodic review and expand the original scope to include:

- Streamline permitting
- Merging Waterwalk with Sea Level Rise (SLR) and King Tide Adaptation

Shoreline Master Program (SMP) Overview

The Shoreline Master Program (SMP) is a plan containing both policies and regulations that apply to shoreline areas (generally the water area and 200-feet inland). In Port Townsend, shorelines include Port Townsend Bay, Admiralty Inlet, Straits of Juan de Fuca, Kah Tai Lagoon, and Chinese Gardens Lagoon. The SMP is intended to provide for environmental protection, appropriate development, and public access.

Development and uses proposed with shorelines jurisdiction may be required to obtain a Substantial Development Permit, a Shoreline Conditional Use Permit, a Shoreline Variance, or a Letter of Exemption. ALL proposals must comply with the policies and regulations in the SMP.

The City and **State Department of Ecology** jointly administer the Shoreline Master Program. For background on the origin of shoreline master programs and the Act that started it all, see:

Shoreline Management Act

Shoreline Master Programs

Photo from Washington State Department of Ecology

Scope of the Periodic Review

The review is expected to focus on revisions necessary to:

1. Keep the SMP current with changes in state law
2. Keep the SMP current with City adopted plans and regulations including recent climate change policies and regulations in the City's Comprehensive Plan which call for consideration of projected climate change impacts and adaptation strategies when updating land use plans, and regulations.
3. Revisions to improve implementation (i.e., to facilitate the permit process).

Thanks to our grant award, we are expanding the original scope to include:

Shoreline Master Program Update
City of Port Townsend

Contact Information

Planning Manager
Judy Surber
jsurber@cityofpt.us

Phone:
(360) 379-5095

Address:
250 Madison Street, Suite 3, Port Townsend, WA 98368

Page Navigation

- **Project Home**
- Port Townsend SMP Contact Form
- Public Comments
- City of Port Townsend Waterwalk Sea Level Rise (South Shore) Technical Investigation

Frequently Asked Questions

- What is the Shoreline Management Act?
- What is a Shoreline Master Program?
- What laws or rules have changed since the SMP was last amended?
- Is the public permitted to provide feedback on the process and on proposed SMP changes?
- Where does the Shoreline Master Program apply?

Key Dates

Monday, September 30, 2024 7:00 am
Event #1
This is a placeholder

Tuesday, October 15, 2024 7:00 am

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Next Steps

- Provide comments to the presentation and memo.
- Based on public comments and the work itself, the City will propose amendments to the SMP to accommodate resilience actions.
- The Public will have another opportunity to comment on the SMP
- Revise SMP and move toward adoption this summer.