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Utility Advisory Committee

Sea Level Rise Response Planning

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Title

Sea Level Rise Response Planning

Recommended Action

Recommend Chair Haffner-Ratliffe write a letter to City Council on behalf of the Utility Advisory Committee supporting the approval of the Draft Sea Level Rise Response Plan.

Report

Issue:

Provide committee comment on and support for the Draft Sea Level Rise Response Plan developed by the City of Olympia (City), the Port of Olympia (Port), LOTT Clean Water Alliance (LOTT) and the consulting firm AECOM Technical Services Inc.

Previous Sea Rise Items Before the UAC:

City Council has designated the Utility Advisory Committee as the key citizen-appointed committee for reviewing the City's elements of our draft sea level rise response plan. Staff briefed the UAC on sea rise issues, the planning approach, downtown's flooding vulnerabilities and risks and the potential adaptation strategies to protect downtown over the past year and a half.

Staff Contact:

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Presenters:

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Background and Analysis:

In early 2017, the City, the Port and LOTT entered into an Interlocal Agreement to jointly fund and participate in a formal sea level rise planning process for downtown Olympia and the Port peninsula. The City, Port and LOTT share common concerns regarding sea level rise, yet have unique individual vulnerabilities. A consulting firm, AECOM Technical Services, is assisting with the planning effort.

Project Tasks

The tasks completed by AECOM and the City, Port and LOTT for this project include:

- An evaluation of the best available science regarding potential sea rise.

- A sea level rise planning framework incorporating community input.
- A vulnerability and risk assessment of downtown assets.
- Specific physical and non-physical adaptation strategies for protecting downtown to year 2100.
- A response plan including governance needs, implementation schedules, and financing considerations.
- Community and stakeholder engagement.

Draft Sea Level Rise Response Plan Contents

The Plan is available on the City's website. Click on the hyperlink listed in the staff report.

Chapter 1 (Planning Context) serves as the introduction to the Plan and planning process. Chapter key messages include:

- The Plan is the product of a unique partnership.
- The Plan builds upon past work while also laying the foundation for future work.
- Downtown has evolved over the last 150 years and will continue to do so.
- The City, LOTT and Port are confident that with community support, downtown can be protected and the risks of sea level rise can be managed technically and financially in the decades ahead.

Chapter 2 (Engagement and Outreach) summarizes engagement and outreach activities. Key activities during the 18-month planning process include:

- Community, advisory and business association briefings.
- Use of a sea level rise project webpage.
- Targeted outreach to state agencies and waterfront landowners.
- Student and teacher engagement.

Chapter 3 (Climate Science for Olympia) provides an overview of sea level rise science and projections. The Plan includes Olympia-specific most likely (36-inches) and high-range (68-inches) projections for year 2100. These values take into account that downtown Olympia may subside (sink) as much as 8-inches by 2100.

The information summarized in **Chapter 4** (Vulnerability and Risk) forms the basis for prioritizing and phasing the Plan's adaptation strategies. Downtown Olympia is vulnerable from flooding caused by:

- Sea level rise.
- High tides and storm surge.
- High Deschutes River flows.
- Backflow through the stormwater system.

Chapter 5 (Approach to Adaptation) details the Plan's approach to adaptation and includes a description of both the Plan's strategy types (physical, operational, governance and informational) and four focus areas (Capitol Lake/Lower Deschutes Watershed, Percival Landing and Isthmus, Budd Inlet Treatment Plant and Combined Sewer System, and Port of Olympia Peninsula). Key

Chapter messages include:

- Physical strategies are planned to be located on public property.
- An incremental approach to protection is taken: near-term, mid-term and long-term actions are provided.
- Given the extensive infrastructure and investments made in our Downtown, wholesale retreat is not a pragmatic strategy to pursue during the planning horizon.

The physical and operational strategies for the Plan's four focus areas are presented in **Chapter 6** (Physical and Operational Strategies). For each focus area, a table of potential actions and conceptual drawings are provided. The initial concepts provided in the Plan offer cost-effective, feasible solutions from an engineering perspective. Refinements and other options are expected in the years to come.

Governance and informational strategies are presented in **Chapter 7** (Governance and Informational Strategies). Key strategies include:

- Develop a governance structure and organization.
- Investigate long-term financing mechanisms.
- Refine sea level rise and flood monitoring strategy.

Chapter 8 (Cost of Adaptation) provides high level costs for the physical strategies by focus area and by phasing time period. Project cost assumptions are also presented.

Chapter 9 (Implementation and Next Steps) includes the full list of adaptation strategies by type, phasing and focus area. Implementation will begin in 2019 focusing on:

- Coordinating emergency response.
- Installing stormwater tide gates and valves.
- Formalizing collaboration and a governance structure.
- Initiating the Shoreline Master Program update.
- Refining the sea level rise and flood monitoring strategy.
- Monitoring new research on future conditions precipitation.

Monitoring is a central component of Plan implementation. **Chapter 10** (Monitoring and Action Triggers) summarizes a monitoring approach for local environmental conditions, sea level rise research, and storm event response. The monitoring approach will be refined in 2019.

Next Steps

Public comment on the Draft Sea Level Rise Response Plan will be accepted through January 25, 2019. Comments received will be summarized for a joint-elected officials meeting and will be added as an appendix to the Plan.

The project's third joint-elected officials meeting is scheduled for January 30, 2019.

Project Partner review and approval is expected to occur in February/March 2019.

Neighborhood/Community Interests (if known):

Various community groups and other agencies are engaged in climate change and sea level rise issues. The City of Olympia Comprehensive Plan and Downtown Strategy support developing a sea level response plan. Citizens voiced their support for the sea level response planning process during four well-attended public meetings conducted during the 18-month planning process. Comments received at each public meeting are included in meeting summary reports that are available on the City's website. Coordination with the City's regional climate change mitigation planning is also occurring.

Options:

1. Support approval of the Draft Sea Level Rise Response Plan.
2. Support approval of the Draft Sea Level Rise Response Plan, with recommended changes.
3. Do not recommend approval of the Draft Sea Level Rise Response Plan.

Financial Impact:

Chapter 8 (Cost of Adaptation) includes high level costs for the physical strategies by focus area. Estimated total costs range from \$190M to \$350M. Costs will be spread out over decades and shared by the Project Partners and community.

In the near term, Storm and Surface Water budgets include \$125,000 for continued planning and technical work associated with Plan implementation. Additional capital facility funding is provided annually for downtown flood reduction work.

Attachment:

Link to Sea Level Rise webpage, which includes the Draft Sea Level Rise Plan