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City Council

Annual Update and Guidance on Sea Level Rise

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Title

Annual Update and Guidance on Sea Level Rise

Recommended Action

Committee Recommendation:

Not referred to a committee.

City Manager Recommendation:

Provide an informational update on the City's efforts to manage downtown flooding and potential sea level rise. Receive City Council input.

Report

Issue:

The implications of climate change and sea level rise are long-term concerns for Olympia. City staff responds to sea rise concerns by understanding how Olympia could be affected and implementing appropriate site-specific actions. City Staff provides annual updates to City Council and the community.

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Presenter(s):

Eric Christensen, Engineer, Public Works Water Resources, 360.570.3741

Background and Analysis:

The City acknowledges the risk that sea level rise poses to its Downtown. Built on low-lying historical fill, the Downtown has a long history of flooding. In recent years, several construction projects and improved emergency response actions have appreciably reduced flooding. The City first documented its vulnerability to climate change and sea level rise in 1991. Since 2007, staff has updated City Council and completed annual work plans that improve our understanding of the Olympia-specific implications of potential sea rise. The work plans seek to provide tangible, straightforward information regarding potentially increasing tides that could affect built and public infrastructure systems in Downtown. The work consistently confirms Olympia's vulnerability to sea rise and helps identify

needed actions to reduce risks. While City staff is challenged to predict the magnitude or timing of future sea rise, we do understand the Downtown landscape, its flood potential and appropriate actions to take at this time.

In October 2010, City Council adopted near-term sea rise policies and management approaches:

1. The City is committed to protecting Downtown from the impacts of sea level rise.
2. The City will seek to understand the implications of and plan for a potential 100-year sea rise of 50 inches. Decisions regarding downtown Olympia embody high financial value, high potential risk, and long-time horizons. These traits of Downtown warrant a cautious approach to sea level rise planning.
3. Incorporate adaptation and flexibility into both public and private infrastructure projects. Use design opportunities for new public and private investments to prepare for sea rise.
4. Seek opportunities to maintain control of valuable shoreline. With respect to managing sea rise and potential flooding, our urban shoreline is a highly valuable resource.

These near-term policies are being revisited as part of the Olympia Comprehensive Plan update. Regardless of potential new goals and policies, understanding and managing downtown flooding is expected to remain a City priority.

During the special study session, staff will discuss:

- Sea level rise processes
- Results of the recently-released (5th) assessment report of the International Panel on Climate Change (IPCC)
- Downtown flooding mechanisms and site-specific vulnerabilities
- Potential short-term and long-term responses to reduce flood risks
- Proposed next steps

Neighborhood/Community Interests (if known):

Various community organizations and governmental agencies are engaged in climate change and sea level issues.

Options:

N/A

Financial Impact:

Through the Storm and Surface Water Utility, the City allocates \$150,000 bi-annually for Downtown flooding and sea level rise work efforts.