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SUBJECT: Localized Sea Level Rise, Washington Coastal Resilience Project (WCRP)
DATE: 10/10/2018

PRESENTATION TYPE:
Informational Briefing

SUMMARY:

Scientists from Washington Sea Grant and the Climate Impacts Group have developed new and localized relative sea level rise (SLR) projections for Washington State. Through the Washington Coastal Resilience Project (WCRP), scientists measured vertical land movement at 171 points along the Washington coastline. They combined this land data with updated global and regional absolute sea level rise data to create localized SLR projections. In addition, the results are presented in a probabilistic framework from which planners, engineers and decision makers can weigh the relative risk to assets and consider risk tolerance for different types of infrastructure and assets.

BACKGROUND:

In 2016, the City of Tacoma was included in a team that was led by the Washington Department of Ecology and Washington Sea Grant to receive a competitive grant from National Oceanic and Atmospheric Administration (NOAA) to assess the impact of climate change on coastal communities. Because of the City's 2015 Climate Change Resilience study, the City of Tacoma was selected as the pilot community for urban coastal areas. This has allowed climate scientists to work collaboratively with City staff to understand the impacts to our community.

ISSUE:

Some of the key points in the report are:

- SLR will depend, in part, on the amount of greenhouse gases released into Earth's atmosphere. By the 2050s, the projected average annual temperature in the Puget Sound Region will be 4.2 degrees F warmer, under low greenhouse gas emissions.
- Even under the lowest greenhouse gas (GHG) scenario, SLR could reach new high points, and figures vary geographically.
- Washington's unique geology causes some places to be more exposed to SLR. Tacoma is subsiding, or sinking, causing SLR to be more severe. Areas between Olympia and Seattle may experience impacts from SLR at a faster rate than locations on the Outer Coast of Washington, such as Neah Bay.
- Under the high GHG scenario, the likely range (17-83%) for SLR in Tacoma is
 - 3.6 – 7.2 inches in 12 years (2030)
 - 6 – 14.4 inches in 32 years (2050)
 - 19.2 – 39.6 inches in 82 years (2100)

ALTERNATIVES: This is an information briefing only. There are no alternatives presented.

FISCAL IMPACT: This is an information briefing only. There is no fiscal impact.

RECOMMENDATION: This is an information briefing only. There is no recommendation.