Attachment No. 3

Proposed Draft Policies and Regulations for Sea Level Rise

Robust planning for sea-level rise requires a dynamic, forward-looking approach to planning and regulation that explicitly deals with uncertainty to address the changing pace and magnitude of climate impacts. Based upon the analysis provided in this report Langley Planning staff has drafted recommended policies and regulations to the SMP. The draft SMP policies and regulations have been reviewed in context to ensure consistency throughout the Plan.

3.3 Shoreline Environment Designations

3.3.2 Residential

C. Management Policies

ADD 7. Encourage all use and development of shoreline properties to address potential adverse effects of sea level rise.

3.3.3 Urban

C. Management Policies

ADD 9. Encourage all use and development of shoreline properties to address potential adverse effects of sea level rise.

3.3.4 Aquatic

C. Management Policies

ADD 10. Encourage all use and development of shoreline properties to address potential adverse effects of sea level rise.

Ch 4 General Use Policies and Regulations

4.2. Shoreline Use

4.2.1 Policies

ADD 16. The City should continue to develop information about the impacts of sea level rise on the shoreline and other affected properties; the City should develop plans to address the impacts of sea level rise in collaboration with impacted property owners, the community and the Department of Ecology. These plans should include at minimum flood prevention approaches, shoreline environment impact considerations and financing approaches. The City should amend the Shoreline Master Program and other policy and regulatory tools in the future as necessary to implement these plans.

ADD 17. During scheduled SMP updates, the City shall assess whether the anticipated SLR projections use in the SMP remain relevant or revisions are necessary to adjust for more up to date research.

4.2.2 Regulations

ADD 15. a. Applicants for development in the shoreline plan area shall be provided with information on sea level rise.

b. Applicants for development in Langley's West and Center reaches shall be encouraged to voluntarily consider increasing setbacks to allow for future sea level rise.
c. A condition of approval for any application, including an exemption letter, shall be required to record a notice on title to identify the potential threat associated with sea level rise and shall hold the City harmless.
d. Geotechnical reports in support of variances proposing development or redevelopment within 65 feet of a bluff must contain erosion projections for 75 years based in part on sea level rise.

4.4 Flood Hazard Management

4.4.1 Policies

ADD 7. Development of properties in the Langley West or Center reaches are encouraged to locate the bottom of a structure's foundation two foot higher than the required elevation established in Ch. 15.24 Flood Hazard Areas.

4.5 Public Access

4.5.2 Regulations

ADD A.9 Public access sites shall be designed to accommodate for the level of expected sea-level rise of 1.2 feet in 2100 as identified in table no. 2 in this strategy.

5.1. Shoreline Modification

5.1.1 Policies

ADD 8. Any new or remodeled shoreline stabilization measure shall consider the implications of sea-level rise and other climate change impacts to promote resiliency of upland development.

5.1.2 Regulations

ADD 3 b. Partial modification of stabilization measures (fill, construction of protective berms) within the shoreline jurisdiction shall be allowed in response to increases in sea level, subject to all other provisions of the SMP.

ADD 15.i. Analysis of sea level rise impacts based on SLR projections of 0.8 feet by 2050 and 1.2 feet by 2100.

ADD 21.f. Bulkheads shall be designed to accommodate for the level of expected sea-level rise of 1.2 feet by 2100 to a maximum of 2.2 feet.

6.4 Boating Facilities (Marinas)

6.4.1 Policies
ADD 18. Marina expansion should be designed and constructed to accommodate for sea level rise to mitigate for the impacts of sea level rise.

6.4.2 Regulations
ADD A.11. Marina expansions shall be designed and constructed to adapt to the level of expected sea-level rise of 1.2 feet in 2100.

6.10 Utilities
6.10.1 Policies
ADD 6. Ensure that new projects for and major maintenance of replacement of utilities and other public infrastructure consider the impacts of sea-level rise in the location, design and operation of the projects.

6.10.2 Regulations
ADD. 12. Upgrades and replacement of utilities and other public infrastructure shall be located outside of areas that may be impacted by the expected sea-level rise in 2100, that is 2.2 feet If infeasible, such development shall be designed and constructed to adapt to the level of expected sea-level rise of 1.2 feet in 2100.

Additional Recommendations
In addition to the inclusion of the proposed policies and regulations in the SMP update this assessment recommends the following additional actions be undertaken by the City.

1. Undertake a thorough geological and geotechnical analysis of the suitability of the existing geo-hazard setback is to be completed. This analysis shall consider sea level rise impacts of bluff erosion. detailed assessment related to steep bluffs and toe erosion to inform the Critical Area Ordinance review, scheduled to begin in Q1 2022.

2. Amend Ch. 15.24. Flood Hazard Areas flood construction elevation be raised two feet above the base flood elevation as established by FEMA's FIRM for new residential (Sec. 15.24.110 A) and non-residential construction (Sec. 15.24.110 B) and substantial improvements. This proposed amendment recommends an additional one foot of elevation above the current standard.

Conclusion
The City of Langley as with all other coastal communities around the globe are beginning to experience sea level rise related impacts of increased flooding, reduced drainage capacity,

coastal erosion, changes to coastal habitats, and more frequent and intense storms, storm surge and wave action[1].

The Department of Commerce recommends cities and counties Comprehensive Plan revisions incorporate climate change and SLR adaptation. The City's Comprehensive Plan updated in 2018 directs the City to start adaption planning to improve the City's resiliency to climate change related impacts. The CIA and Restoration Plan prepared in support of Langley's SMP in 2013 identified the impending risks associated with sea level rise. Langley's current SMP contains one policy referencing sea level rise. The Shoreline Master Plan as the guiding document for development activity along Langley's shoreline and this update is an obvious first step for the City to include substantive requirements to minimize the risks of sea level rise for shoreline properties.

Consistent with WAC 173-26-201(2)(a) this assessment uses current and complete scientific and technical information as to how sea level rise is projected to impact Langley's shoreline properties. This research has been undertaken by Washington Sea Grant and UW Climate Impacts Group and is being used by other local governments in their analyses, for example King Co. and the City of Olympia. In addition, this assessment includes research from numerous sources providing guidance for governments around the globe around adaptation planning related to climate change impacts. The mapping in Appendix No. 2 based upon the scientific research noted above clearly shows the impended risks.

The community discussion of sea level rise impacts for the City of Langley started at an event in October 2020. All the participants agreed that the City must begin adaptation planning around the associated risks to sea level rise. The Planning Advisory Board has recommended that the SMP address the risks. Through the public review process for the SMP update Langley Council, property owners and other stakeholders will have the opportunity to provide comments on the draft SMP and this assessment.

As identified in the Restoration Plan prepared by ESA in support of Langley's 2013 SMP "adaptive management is the process of continually improving management policies and practices to respond to results. Shoreline planning is iterative. As data are gathered and compared to past years' data, the City will be able to come to a clearer understanding of environmental processes and stressors. As understanding increases, the City will have the opportunity to adjust policies, regulations, and restoration priorities to adapt to changes in conditions and information.[2]"

[1] The Arlington Group et al. 2013
[2] ESA 2011