



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 8c

**ACTION ITEM**

**Date of Meeting** March 24, 2020

**DATE:** February 22, 2020

**TO:** Stephen P. Metruck, Executive Director

**FROM:** Sandra Kilroy, Director, Maritime Environment & Sustainability  
Jon Sloan, Sr. Manager, Environmental Programs

**SUBJECT:** Interlocal Agreements to support Smith Cove Blue Carbon Monitoring Study

**Amount of this request:** N/A  
**Total estimated project cost:** \$250,000

**ACTION REQUESTED**

Request Commission authorization to execute Interlocal Agreements with the Washington State Department of Ecology (Ecology) and Washington State Department of Natural Resources (DNR) to support a three-year evaluation of carbon sequestration, water quality improvement, and ecological productivity associated with the Smith Cove Blue Carbon Pilot Project.

**EXECUTIVE SUMMARY**

The design and construction of the Smith Cove Blue Carbon Pilot Project was included in the 2018 Maritime Division expense budget. The port subsequently contracted with Puget Sound Restoration Fund and Grette Associates to implement the work. The project work was completed, and now in ongoing monitoring and adaptive management. Subsequent to the project authorization, staff was approved to use \$250,000 in previously authorized Energy & Sustainability Committee funding to support a long-term evaluation of project benefits. To that end, staff proposes to engage Ecology and DNR to assist with data collection, analysis, reporting, and public outreach. The partnership will require two separate interlocal agreements (ILAs) to formalize the scope of work and financial relationship.

**JUSTIFICATION**

Kelp and eelgrass have been widely recognized as keystone habitats for a wide range of fish and wildlife species. Researchers have also begun to recognize that they are effective “carbon sinks,” storing as much as a third-of-a-ton of carbon per acre per year. In that light, the Smith Cove Blue Carbon Pilot Project was undertaken to make progress on Long Range Plan Objective 15, Priority Action 4, “Optimize PORTfolio park and habitat restoration sites to sequester greenhouse gases (GHG’s)”; and, Objective 17, “Restore, create, and enhance 40 additional acres of habitat in the Green/Duwamish Watershed and Elliott Bay.”

Meeting Date: March 24, 2020

The degree to which the project can be credited towards either of these two objectives, however, is based on assumptions from the academic literature. To that end, a long-term data collection and analysis effort has been developed. The effort will contribute to knowledge and expertise applicable to kelp, eelgrass and shellfish restoration in urban environments, and confirm the ability to make important water quality and habitat improvements in Elliott Bay. The Smith Cove project will demonstrate the port's regional leadership in achieving balanced economic and environmental benefits, while providing a case study for other agencies and interests to implement similar blue carbon projects.

### **DETAILS**

The Smith Cove Blue Carbon Pilot Project has specific habitat restoration elements that will be evaluated for carbon sequestration, water quality (specifically seawater acidification) benefits, and habitat productivity. These elements include bull kelp, eelgrass and Olympia oyster beds installed between 2018-2020. If approved, Port staff will work the Washington State Departments of Ecology (Ecology) and Natural Resources (DNR) to study and evaluate project effectiveness and benefits of the elements.

The Interlocal Agreements (ILAs) that are required to formalize this arrangement will include the following provisions:

- ILA with DNR: The Port will provide \$163,500 in funding to support 50% of a Natural Resource Scientist II position to assist with the Smith Cove study in collaboration with Port staff. The DNR Scientist II will collect pH data, shellfish survival rates, and other data for three years, as part of the *Acidification Nearshore Monitoring Network* (ANEMONE) program. The ANEMONE program includes nine study sites (including Smith Cove) where pH measurements are being taken over time to measure the rate and magnitude of seawater acidification in Puget Sound.
- ILA with Ecology: The Port will provide \$36,500 in funding to Ecology to support high-level technical oversight, analysis, and participation by Dr. Micah Horwith, Washington State's ocean acidification (OA) expert. Smith Cove will be integrated into his ongoing ocean acidification monitoring program, including at least two vessel-based data collection events.
- DNR and Ecology will create a *Community-Based Science Plan* to allow for participation in the Smith Cove study by members of the Port's neighboring communities. The DNR Scientist II will manage the community-based science program in collaboration with Port Community Affairs staff.

Meeting Date: March 24, 2020

- Ecology data and ANEMONE program data will be combined and analyzed by Dr. Horwith and the DNR Scientist II, who will collaborate to present findings to the Port and community partners on an annual basis for three years.
- At the end of the three-year study period, DNR and Ecology will produce a Final Report.

Depending on the results of this work, additional kelp, eelgrass and oyster restoration may be promoted as a way to contribute to the Port’s greenhouse reduction goals, reduce seawater acidification, and provide habitat for imperiled species of fish and wildlife.

**Schedule**

The majority of pre-project baseline data collection occurred in 2017-2018. The development of the long-term study plan occurred in collaboration with Ecology and DNR in 2019 and will be updated upon approval of the ILAs. The proposed study will include limited additional baseline data collection, followed by extensive monitoring over a three-year period.

*Activity*

Commission approval – E&S Committee funds	Sept. 11, 2018
Commission request – Ecology & DNR ILAs	March 25, 2020
Additional kelp and oyster restoration	2020
Year 1 monitoring	2020
Year 2 monitoring	2021
Year 3 monitoring	2022
Final report	2023

**Cost Breakdown**

	This Request	Total Project
Study Plan/Design	\$0	\$0
Study implementation	\$250,000	\$250,000
Total	\$250,000	\$250,000

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1. Engage consultants to undertake the study rather than Ecology and DNR.**

- Cost: >\$360,000
- Pros: Utilizes existing IDIQ contracts.
- Cons: Exceeds authorized budget for study.

*This is not the recommended alternative*

**Alternative 2. Engage UW researchers and students rather than Ecology and DNR.**

- Cost: >\$500,000

Meeting Date: March 24, 2020

- Pros: Enhances port’s relationship with UW. Scientific bandwidth of UW adds credibility.
- Cons: Cost is significantly higher than Ecology/DNR and exceeds authorized budget. Also, effort is limited by constraints associated with school year and availability of UW staff/students.

*This is not the recommended alternative*

**Alternative 3. Execute ILA’s with Ecology and DNR to undertake study.**

- Cost: <\$250,000
- Pros: Engages public-agency partners that are already undertaking this type of work in the area. Aligns with community-based science initiative getting underway at DNR.
- Cons:

*This is the recommended alternative*

**FINANCIAL IMPLICATIONS**

The Smith Cove Blue Carbon Pilot Project was funded for \$295,000 in the 2017-18 Maritime Division expense budget. The Commission authorize use of an additional \$250,000 in 2018 to support the long-term study. No additional funding is being requested.

<b><i>Cost Estimate/Authorization Summary</i></b>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$0	\$0	\$0
<b>AUTHORIZATION</b>			
Previous authorizations	0	\$295,000 <sup>1</sup>	\$225,000 <sup>2</sup>
Current request for authorization	0	0	0
Total authorizations, including this request	0	0	\$515,000
Remaining amount to be authorized	\$0	\$0	\$0

<sup>1</sup> Authorized in 2018 Maritime Division expense budget

<sup>2</sup> Included in Energy & Sustainability Committee funding authorization (\$1m)

***Annual Budget Status and Source of Funds***

Funds from the Energy & Sustainability Committee needed to implement the ILAs are previously authorized and will be allocated in the 2020-23 expense budgets. No funds are being requested as part of this authorization.

Meeting Date: March 24, 2020

***Financial Analysis and Summary***

Project cost for analysis	N/A
Business Unit (BU)	N/A
Effect on business performance (NOI after depreciation)	N/A
IRR/NPV (if relevant)	N/A
CPE Impact	N/A

***Future Revenues and Expenses (Total cost of ownership)***

N/A

**ATTACHMENTS TO THIS REQUEST**

- (1) Presentation slides
- (2) Draft-Final Interlocal Agreements (ILAs) w/ Ecology and DNR

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

Sept. 11, 2018 – The Commission moved to approve the Smith Cove Blue Carbon Pilot Project as a recipient of Energy & Sustainability Committee funding