

AGENDA REPORT

Resolution: Approve and Authorize the Executive Director to Execute a Temporary License Agreement with California College of the Arts for Installation and Maintenance of the Buoyant Ecologies Float Lab in the Middle Harbor Enhancement Area for One (1) Year with Two, One-Year Options. **(Engineering)**

MEETING DATE: 7/11/2019

AMOUNT: \$0

PARTIES INVOLVED: **California College of the Arts (“CCA”)**
Oakland, CA
Terry Aguiar, CFO and Sr. Vice President of
Administration

SUBMITTED BY: Richard Sinkoff, Director of Environmental Programs &
Planning

APPROVED BY: J. Christopher Lytle, Executive Director

ACTION TYPE: Resolution

EXECUTIVE SUMMARY

This action approves and authorizes the Executive Director to execute a temporary license agreement with California College of the Arts for installation and maintenance of the Buoyant Ecologies Float Lab in the Middle Harbor Enhancement Area for one (1) year with two, one-year options. The Buoyant Ecologies Float Lab is a prototype for an ecologically productive floating breakwater designed to gather data on floating structures in areas that are vulnerable to sea level rise. The action supports the educational goals of the Middle Harbor Shoreline Park Master Plan.

BACKGROUND

The Middle Harbor Shoreline Park (MHSP) was constructed as part of the Port of Oakland’s Vision 2000 Maritime Development Program, which redeveloped the former U.S. Navy Fleet Industrial Supply Center into maritime terminals, rail yards, roads, and public access areas and features. The Port secured BCDC Permit 7-99 for the construction of Vision 2000, including MHSP. Pursuant to BCDC Permit 7-99, the Port constructed MHSP to address the loss of a small (0.5 acre) “pocket park” on the Inner Harbor Channel (roughly where Berth 56 is located today) and to provide public access as a part of the Vision 2000 Maritime Development Program. The Master Plan design for Middle Harbor Shoreline Park reflects extensive stakeholder engagement through a 40+-member Community Advisory Community (CAC) focused on public access and a 40+-member Technical Advisory Group (TAG) focused

on biology, habitat, hydrology and natural sciences education. The 38-acre MHSP wraps around the 180-acre Middle Harbor Enhancement Area (MHEA) which is a project supported by the Port and led by the United States Army Corps of Engineers in conjunction with the USACE -50 foot federal channel dredging project. Construction of both the MHSP and the MHEA began in the early 2000s.

The Port has on-going goals in the Middle Harbor Shoreline Park Master Plan to provide educational opportunities at MHSP. The Middle Harbor Shoreline Park Master Plan (adopted by the Board on May 1999) sets forth Community and Port of Oakland objectives for the park:

- 1) to create a place for learning about the natural environment, local history, maritime activities and stewardship of the environment;
- 2) to emphasize the unique aspects of the site; to have a place for public science education.

Further, MHSP's education goals envision a combination of permanent and seasonal on-site science-based programs. The Master Plan states: "*It is hoped that one day MHSP and Habitat will be a primary facility for teaching about the natural resources of the Bay.*"

To date, this goal has been partially realized through the Port's naturalist programs. Currently the Port funds the Stepping Out Stepping In (SOSI) program for Oakland's elementary school children. While in MHSP, the students learn about the San Francisco Bay, subtidal habitat and the animals present within MHSP. The Float Lab will give SOSI staff an opportunity to add sea level rise to the educational curriculum. In addition, as the Float Lab will be visible from the fishing pier, it will also give the public an opportunity to engage with the topic of sea level rise. Along with the Port's ongoing naturalist programs, the Float Lab will complement the Port's environmental portfolio.

ANALYSIS

Collaboration with the California College of the Arts (CCA)

The Port began collaborating with the California College of the Arts (CCA) in 2015. CCA (formerly the California College of Arts and Crafts) is an institution of higher education with a focus on art, design, architecture, and writing. CCA has campuses in San Francisco and in Oakland. "Buoyant Ecologies" (BE) is a seminar within the CCA School of Architecture focused on architectural designs that can adapt to rising sea levels.

The "Float Lab"

BE staff and students used Middle Harbor Shoreline Park as a setting for their design studios. An outcome of these designs is the Float Lab. The Float Lab is a 10-foot by 15-foot structure constructed of fiber-reinforced polymers – about the size of a full-sized automobile (Attachment A). The research is focused on structural and biological issues. Float Lab will test the structural resiliency of its fabrication in a tidal marine environment. In addition, Float Lab is designed to investigate the biological value of different surface configurations both under and above the water surface. Underwater the substrate geometry is optimized for

invertebrates that contribute to the biological diversity of the marine ecology and can serve as effective wave-attenuating sponges. Above water, ecologists will study how salt water irrigation on the surface geometry can create watershed tidal pools.

BE staff have worked with Port staff to arrange for the Float Lab to be moored into the Port's Middle Harbor, about 150-300 feet south of the Portview Park fishing pier (Attachment B) under the proposed license. CCA staff plans to deliver the Float Lab to Berth 40 (adjacent to Portview Park) in August 2019. Port Harbor Facilities staff (including several members of the diving team) as well as the Portview Park Manager, will assist in launching the Float Lab and will perform the mooring of the Float Lab. CCA has applied for and received the necessary BCDC and U.S. Army Corps of Engineers' permits required to moor the Float Lab in the San Francisco Bay. CCA will be responsible for all maintenance of the Float Lab, as well as the monitoring of the data being collected. Under the proposed license, the Port is offering CCA a no-cost one-year lease, with two one-year renewal options.

Port staff are currently preparing a sea-level rise vulnerability analysis for all Port facilities. As a trustee of State tidelands, the Port must report the results of the vulnerability analysis to the State Lands Commission under AB 691 by July 1, 2019. The analysis includes projections of both 100-year storm events and daily tidal inundation (incorporating projected sea level rise) for 2030, 2050, and 2100. (100-yr events show the biggest storms while daily tidal inundation shows the highest daily tide with SLR incorporated). The AB 691 report includes a vulnerability analysis to highlight which assets would be vulnerable to these storm events. Lastly, the AB 691 report provides the Port with adaptive management strategies to help make the Port more resilient.

While the AB 691 analysis will be submitted on July 1, 2019, it will provide the Port with a living document to be used as a road map for the future. As the Bay Area's environment continues to change, the Port, as a waterfront institution, will be affected. One option for the Port to develop long-term resilience could be driven, in part, by long-term collaboration and partnerships with agencies, academics, and professionals to find engineering and design solutions to develop adaptation strategies and structures. Research into design solutions and implementation of pilot projects could play a role in expanding the "tool-box" used to address SLR.

The opportunity presented through the collaboration between the Port of Oakland and the California College of Art, Buoyant Ecologies Studio demonstrates the Port's engagement and leadership in investigating adaptation strategies for Sea Level Rise.

Term Sheet for the Temporary License Agreement

The temporary license agreement with California College of the Arts for installation and maintenance of the Buoyant Ecologies Float Lab in the Middle Harbor Enhancement Area is for one (1) year with two, one-year options. The agreement requires no fee. The Port will launch and moor the Float Lab from the Middle Harbor Enhancement Area in August 2019. Thereafter, CCA is responsible for all maintenance activities and is responsible for all liability.

CCA has completed permit applications with BCDC (Regionwide Permit No. RWP-3) and USACE Nationwide Permit 4 (File 2018-00280S) and is responsible for all permit compliance. No RWQCB permit was necessary. CCA has worked with Port staff to determine what insurance is necessary for the Float Lab. CCA has purchased insurance at the Port-required levels.

BUDGET & STAFFING

The proposed action does not have any budget or staffing impact.

MARITIME AVIATION PROJECT LABOR AGREEMENT (MAPLA)

The matters included in this Agenda Report do not fall within the scope of the Port of Oakland Maritime and Aviation Project Labor Agreement (MAPLA) and the provisions of the MAPLA do not apply.

STRATEGIC PLAN

The action described herein would help the Port achieve the following goals and objectives in the Port's Strategic Business Plan (2018-2022).

<https://www.portofoakland.com/wp-content/uploads/Port-of-Oakland-Strategic-Plan.pdf>

- Goal: Serve Our Community
- Goal: Care for Our Environment

LIVING WAGE

Living wage requirements, in accordance with the Port's Rules and Regulations for the Implementation and Enforcement of the Port of Oakland Living Wage Requirements (the "Living Wage Regulations"), do not apply because the requested action is not an agreement, contract, lease, or request to provide financial assistance within the meaning of the Living Wage Regulations.

SUSTAINABILITY

The Float Lab project is a design with long-term sustainability of coastal communities in mind, by addressing infrastructure that can withstand sea level rise. The data gathered from this prototype will be used to design sustainable habitat for both humans and nature.

ENVIRONMENTAL

The Port has determined that this project is categorically exempt from the California Environmental Quality Act (CEQA) Guidelines pursuant to Section 15306, Information Collection. CEQA does not apply to projects that include basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. The Float Lab location in the

MHEA is not considered an impact on an environmental resource of critical concern (in this case, the eelgrass that has been planted in June 2019 within the MHEA.)

GENERAL PLAN

This action does not change the use of any existing facility, make alterations to an existing facility, or create a new facility; therefore, a General Plan conformity determination pursuant to Section 727 of the City of Oakland Charter is not required.

OWNER-CONTROLLED INSURANCE PROGRAM (OCIP)

This action is not subject to the Port's Owner Controlled Insurance Program (OCIP) as it is not a capital improvement construction project.

OPTIONS

The following are options for the Board's consideration:

1. Approve the actions as outlined in this agenda report. This is the recommended option.
2. Approve and authorize the Executive Director (ED) to execute a temporary License Agreement with CCA for installation and maintenance of the BE Float Lab in the MHEA area, but according to different terms and conditions that may not be acceptable for CCA.
3. Not approve or authorize the temporary License Agreement with CCA for installation and maintenance of the BE Float Lab in the MHEA area, in which the Port would miss involvement with an educational opportunity regarding sea level rise.

RECOMMENDATION

Staff recommends that the Board adopt a resolution to:

Approve and Authorize the Executive Director to Execute a Temporary License Agreement with California College of the Arts for Installation and Maintenance of the Buoyant Ecologies Float Lab in the Middle Harbor Enhancement Area for One (1) Year with Two, One Year Options.

Attachments

A Float Lab Depiction

B Map