

**FILE NUMBER: 2025-141**

**DATE:** Tuesday, May 6, 2025

**SUBJECT: Blue Economy Incubator MarineLabs Data Systems Pilot Project**

**DESCRIPTION: Resolution Finding the Following Board Action Exempt Under the California Environmental Quality Act (CEQA), Including but not Limited to, CEQA Guidelines Sections 15301, 15303, 15304, 15306, and 15311 and Authorizing an Agreement Under the District's Blue Economy Incubator with MarineLabs Data Systems, Inc. for a Two-Year Pilot Project to Validate its Coastal Intelligence Data System for Port Environmental and Security Applications for an Amount not to Exceed \$300,000. Funding for the Proposed Pilot Project is Included in the Approved FY2025 Economic Recovery Program Budget.**

**EXECUTIVE SUMMARY:**

The District's Blue Economy Incubator (BEI) assists in the creation, development and scaling of new Blue Economy business ventures in and around San Diego Bay. The program acts as a launch pad for sustainable aquaculture and Port-related blue tech ventures by removing barriers to early-stage companies and providing key assets and support services focused on pilot project facilitation. Pilot project proposals are reviewed following a four-step cross-departmental due diligence process, culminating in a staff recommendation to the Board of Port Commissioners. The review and selection process balances each proposal's potential social and environmental benefit, alignment with the District's core mission and Public Trust obligation, as well as potential financial return on investment.

To date, the District has approved the launch of ten (10) pilot projects, and a reinvestment in seaweed aquaculture, with projects ranging from shellfish nursery operations; copper remediation technology; a drive-in Boatwash; a smart marina application; a marine debris removal vessel; seaweed aquaculture; bio-enhancing shoreline armoring; a new approach to soil remediation in marine environments, a real-time field-testing sensor device for stormwater monitoring, and a smart buoy platform tailored for various port monitoring applications. Staff are now recommending the Board authorize an incubator agreement with Marinelabs Data Systems, Inc. for a pilot project to validate its coastal intelligence data system for port environmental and security applications for a total amount not to exceed \$300,000 for two years (Attachment A). In exchange for District's funding and other assistance, Marinelabs will pay District a revenue share consisting of various percentages of gross revenue over time up to a maximum \$2,000,000.

**RECOMMENDATION:**

Adopt a Resolution Finding the Following Board Action Exempt Under the California Environmental Quality Act (CEQA), Including but not Limited to, CEQA Guidelines Sections 15301, 15303, 15304, 15306, and 15311; and Authorizing an Agreement Under the District's Blue Economy Incubator with MarineLabs Data Systems, Inc. for a Two-

Year Pilot Project to Validate its Coastal Intelligence Data System for Port Environmental and Security Applications for an Amount not to Exceed \$300,000.

### **FISCAL IMPACT:**

There is no fiscal impact caused by approval of this action.

Funding for the proposed pilot project is included in the approved FY 2025 Economic Recovery Program (ERP) budget. Funds required for future fiscal years will be budgeted in the appropriate fiscal year, subject to Board approval upon adoption of each fiscal year's budget.

### **COMPASS STRATEGIC GOALS:**

Advancing the Blue Economy directly aligns with the District's core mission and with the Public Trust Doctrine and Port Act for the promotion of commerce, navigation, fisheries, recreation, and environmental stewardship. This agenda item supports the following Strategic Goal(s).

- A Port with a healthy and sustainable bay and its environment.
- A Port with a comprehensive vision for Port land and water uses integrated to regional plans.
- A Port that is a safe place to visit, work and play.
- A financially sustainable Port that drives job creation and regional economic vitality.

### **DISCUSSION:**

#### **Blue Economy Incubator**

In 2015, the District established the Aquaculture and Blue Technology Program to conduct studies, planning, and pre-development work to support and inform aquaculture and blue tech opportunities in and around San Diego Bay. Under this Program, in 2016, the District established a Blue Economy Incubator (BEI) to assist in the creation, early development, and initial scaling of new Blue Economy business ventures in and around San Diego Bay, focusing on sustainable aquaculture and Port-related blue technology. The BEI program provides early-stage companies with pilot project facilitation services including funding, key assets, permitting and entitlement assistance.

Through its BEI, the District is seeking innovative aquaculture and blue technology proposals to inform present and future Port challenges and opportunities, from environmental compliance and remediation to coastal resilience and security. By funding pilot projects, the BEI is creating synergies with and is informing other environmental programs from sea-level rise adaptation to copper remediation, marine debris removal management, and evaluating shellfish and seaweed aquaculture as a tool for bioremediation and restoration.

Ultimately, the goal of the program is to build a portfolio of new Blue Economy businesses and partnerships that can deliver multiple social, environmental, and economic co-

benefits to the District and the region. As the state-legislated trustee of tidelands and submerged waters in and around San Diego Bay, developing sustainable domestic aquaculture and supporting Port-related blue technology assists in fulfilling the Port's public trust responsibility to promote fisheries and commerce, as well as aligning with its mission to enhance and protect the environment.

The BEI invites early stage and market-ready ventures that align with the BEI's objectives to submit business and pilot project proposals. BEI proposals are reviewed following a four-step cross-departmental due diligence process culminating in a staff recommendation to the Board of Port Commissioners. The selection process balances each proposal's potential social and environmental benefit, alignment with the District's core mission and Public Trust obligation, as well as the potential financial return on investment. All companies that apply to the BEI are vetted through the formal four-step competitive review process and any of the selected proposals are required to undergo California Environmental Quality Act review, and coastal review where applicable, and obtain all necessary permits.

To date, the District has approved the launch of ten (10) pilot projects, and one reinvestment:

- On June 20, 2017, by Resolution No. 2017-085, the Board authorized four agreements to initiate pilot projects as part of the BEI first round of proposals. The first round included pilot projects for shellfish aquaculture nursery operations, copper remediation applications, a drive-in Boatwash technology, and a smart marina software application.
- As part of the BEI second round of proposals, on January 9, 2018, by Resolution No. 2017-0628, the Board authorized one agreement to initiate a pilot project to demonstrate a custom-made vessel and skimming technology to remove marine debris in San Diego Bay.
- On July 17, 2018, by Resolution No. 2018-0304, as part of the BEI third round of proposals, the Board authorized a pilot project to demonstrate feasibility of seaweed aquaculture in San Diego Bay.
- On June 18, 2019, by resolution No. 2019-0116, as part of the BEI fourth round of proposals, the Board authorized a pilot project to demonstrate in-situ technology to extract contaminants from marine sediment.
- On July 24, 2019, by resolution 2019-0228, the Board authorized a pilot project to demonstrate a bio-enhancing concrete solution for marine infrastructure.
- On December 8<sup>th</sup>, 2020, by resolution 2020-0391, the Board authorized a pilot project to develop a portable five-in-one field-testing sensor device to provide real-time metals analysis for stormwater monitoring.
- On November 8<sup>th</sup>, 2022, by resolution 2022-0358 the Board authorized a re-investment in Sunken Seaweed to expand their land-based macro algae cultivation operations in Humboldt Bay, with plans to sell product to the San Diego market.
- On November 14<sup>th</sup>, 2023, by resolution 2023-0223 the Board authorized a pilot project to develop, test, and validate a smart buoy platform tailored for various port monitoring applications.

The fifth edition of the BEI Highlights Report (Attachment B) outlines the Portfolio performance based on measurable environmental, social, and financial benefits delivered by the Portfolio companies, from pilot project to commercial success.

Staff are now recommending the Board authorize a pilot project with MarineLabs Data Systems, Inc. to validate its coastal intelligence data system for port environmental and security applications.

## **Recommended Pilot Project Proposal**

**MarineLabs Data Systems Incorporated.** / Coastal intelligence data system.

**MarineLabs Data Systems Incorporated (MarineLabs)** is a scale-up company that provides real-time coastal domain awareness and climate resilience data from sensor units that can be rapidly deployed on existing floating assets such as U.S. Coast Guard Aids to Navigation (AtoN) and marker buoys as well as on private floats operated by MarineLabs. Long term continuous wind, wave, and vessel wake data from the sensor units can be used for climate hazard assessments, aiding the design and upgrade of port infrastructure, making projects more cost efficient and climate resilient. MarineLabs is developing a real-time coastal intelligence solution that enhances safety, efficiency, and sustainability in maritime operations by providing users with detailed, actionable, real-time, and historical data for informed decision-making.

The MarineLabs pilot project aims to validate its coastal intelligence data system for port environmental and security applications. Specifically, the aim is to demonstrate a coastal intelligence platform by deploying up to 10 sensor units, with five (5) deployed on MarineLabs private buoys, and another five (5) on US Coast Guard AtoN buoys. District staff will select five of the seven MarineLabs private buoy locations under consideration within the District's jurisdiction in and outside of San Diego Bay (Attachment C), as well as coordinate with U.S. Coast Guard to select five (5) AtoN buoy locations within the four "ecoregions" (North, North Central, South Central, South Bay) in San Diego Bay, and one offshore (Attachment D). The ecoregions were first identified in the Integrated Natural Resources Management Plan in 2013, a joint natural resources management document between the District and the U.S. Navy. These sensors will be used to measure long-term time series wind, wave, and vessel wake data for port environmental and security applications. The sensor units consist of GPS and inertial motion sensors, rugged camera modules, wind sensors, computers, battery, data storage and telemetry components integrated into a compact, ruggedized, self-contained, solar-powered housing. The sensor nodes are proprietary and novel technology, with over 175 buoy-years in operation in Canadian waters.

The proposed Coastal Intelligence platform to be developed for this pilot will require minimum maintenance which will be carried out by the MarineLabs team. Results from the two-year pilot project will allow for case study development to support commercialization of Port environmental and coastal monitoring, and security applications.

The Blue Economy Incubator Committee offered the following comments in support of the proposal including:

- Proposal supports innovation that provides strategic mission alignment with various District Departments to enhance ocean data collection for several Port monitoring and security applications;
- Proposal is complementary to District's environmental stewardship mission and need to protect coastal-dependent assets;
- Proposer's principals are well-qualified and experienced, and the company has validated product technology for various industries; and
- Proposal's financial return is favorable based on the company market traction.

## **Conclusion**

Staff recommends the Board authorize an agreement with MarineLabs Data Systems Inc. for a two-year pilot project to validate its coastal intelligence data system for a total amount not to exceed \$300,000. In exchange for District's funding and other assistance, MarineLabs will pay District a revenue share over time up to a maximum \$2,000,000.

## **General Counsel's Comments:**

The Office of the General Counsel has reviewed and approved this agenda, proposed agreement and resolution, as presented, as to form and legality

## **Environmental Review:**

The proposed Board action, including without limitation authorizing an agreement with MarineLabs Data Systems, Inc. to begin a two year pilot project to validate its coastal intelligence data system for Port environmental and security applications in an amount not to exceed \$300,000, is Categorically Exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15301 (Existing Facilities), 15303 (New Construction or Conversion of Small Structures), 15304 (Minor Alterations to Land), 15306 (Information Collection), and 15311 (Accessory Structures), and Sections 3.a. (1), 3.c., 3.d. (6), 3.f., 3.i. (1) of the District's Guidelines for Compliance with CEQA because the project involves a Tidelands Use and Occupancy Permit for the use of water area to install smart buoy technology on approximately 5 new buoys and 5 existing USCG buoys located in San Diego Bay which would involve no expansion of use beyond that previously existing, would consist of the installation of small new equipment and facilities on small structures, would result in no permanent effects on the environment, would not involve the removal of mature, scenic trees, and is for the purpose of research which would not result in a serious or major disturbance to an environmental resource. The District has determined none of the six exceptions to the use of a categorical exemption apply to this project (CEQA Guidelines Section 15300.2).

The proposed Board action complies with Section 87.(a)(1) of the Port Act, which allows for the establishment, improvement, and conduct of a harbor, and for the construction, reconstruction, repair, maintenance, and operations of wharves, docks, piers, slips, quays, and all other works, buildings, facilities, utilities, structures, and appliances

incidental, necessary, or convenient, for the promotion and accommodation of commerce and navigation. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, the proposed Board action is consistent with the Public Trust Doctrine.

The proposed Board action is considered excluded development pursuant to Section 8.a: Existing Facilities; Section 8.c: New Construction or Conversion of Small Structures; Section 8.d: Minor Alterations to Land; and Section 8.e: Information Collection, of the District's Coastal Development Permit Regulations because the project involves a Tidelands Use and Occupancy Permit for the use of water area to install smart buoy technology on approximately 5 new buoys and 5 existing USCG buoys located in San Diego Bay which would involve negligible expansion of use beyond that previously existing, would involve no change of existing use of the property, would not involve the removal of mature, scenic trees, and would not result in a serious or major significant disturbance to an environmental resource. If the Board approves this action, District staff would notify California Coastal Commission (CCC) staff in accordance with Coastal Act Section 30717. The approval would become effective after the 10th working day after notification to CCC staff, unless an appeal is filed with the CCC within that time frame.

### **Diversity, Equity, and Inclusion Program:**

This agenda sheet has no direct impact on DEI workforce or contract reporting at this time.

### **PREPARED BY:**

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### **Attachment(s):**

Attachment A:	MarineLabs Data Systems Inc.- Agreement
Attachment B:	Blue Economy Incubator Highlights Report- Fifth Edition
Attachment C:	MarineLabs Private Buoy Potential Locations- Lat/Longs
Attachment D:	MarineLabs- U.S. Coast Guard Aids to Navigation Potential Buoy