

# ECONcrete

ECONcrete is offering concrete technology to enhance the biological and ecological value of coastal infrastructure while preserving functional and structural properties



## PILOT PROJECT

In 2019, ECONcrete partnered with the Port of San Diego to demonstrate a new design of its tide pool armor unit product. ECONcrete is an early-stage company comprised of a multidisciplinary team of renowned marine ecologists, biologists, geologists, concrete experts, engineers, and designers.

During the three-year pilot project, ECONcrete will demonstrate their new and innovative tide pool design, the COASTALOCK interlocking tide pool. The COASTALOCK tide pool is designed to interlock with other COASTALOCK tide pools to create a tide pool system, potentially serving as a replacement for traditional riprap to provide ecological armoring and shoreline stabilization while also creating well-defined local ecosystems that mimic natural rock pools. The tide pool system is designed to create water retaining elements which are absent in most urban waterfronts. During the pilot project, ECONcrete will install 72 Coastal Star tide pools across two sites along the San Diego Bay shoreline.

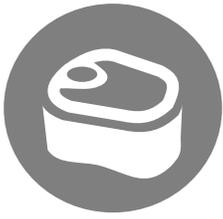
## CURRENT STATUS

In support of the pilot, the Port is providing funding, permitting, and environmental review as well as access to Port-controlled land in San Diego Bay to test the ECONcrete technology. The casting of the tide pools is completed, and the installation is planned for early 2021.

## HIGHLIGHTS



In January 2021, ECONcrete will install these COASTALOCK interlocking tide pools at two locations on Harbor Island. The tide pools are made with an environmentally sensitive, low carbon concrete mixture tailored to the San Diego Bay marine environment.

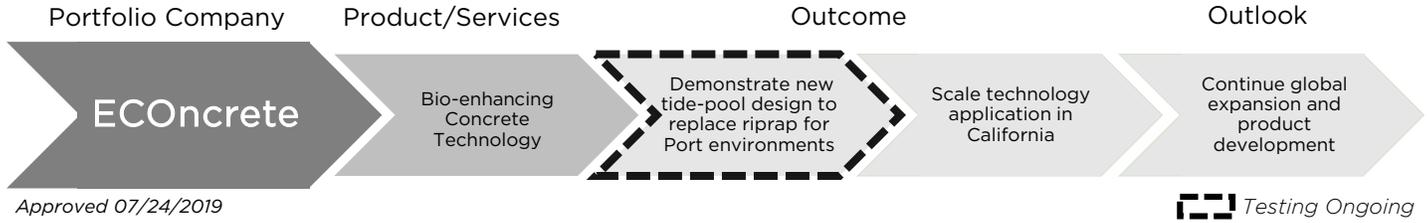


# Scorecard: ECONcrete / Q1 FY21

PILOT TIMELINE: Board Approval: 07/24/2019 Start Date: Dec 2020 End Date: Jan 2022

## PILOT OVERVIEW

*Tracking benefits from pilot project to commercial success*



## ENVIRONMENTAL & SOCIAL BENEFITS

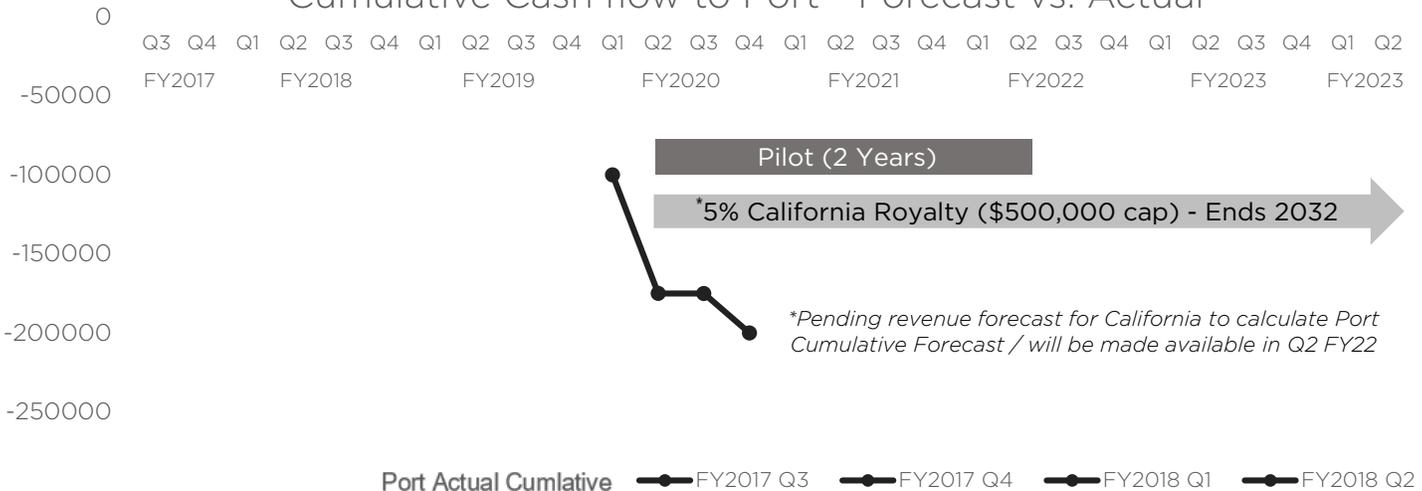
### Pilot Key Performance Indicators

OVERALL KPI (Port Fiscal Year)	Biodiversity	Species Abundance	Species Richness	Community Structure	Percent Live Cover	Accumulation of Biogenic Build-Up (calcium carbonate)
FY21-23	<p><i>Every six months after installation, ECONcrete will evaluate the viability of the tide pool units as an ecological armoring replacement to traditional riprap. Biological monitoring will be comprised of in-situ surveys. Ecological success criteria will be evaluated according to biological parameters when compared to the existing shoreline.</i></p> <p><i>Structural success criteria will be evaluated according to the Level 1 &amp; 2 visual inspection of the tide pools at the conclusion of the 3-year pilot project for determining the overall condition (cracking, chipping, etc.), as well as structural stability - per the standards established by the American Society of Civil Engineers "ASCE Manual 101, Underwater Investigations".</i></p>					

*Per pilot project statement of work*

## FINANCIAL FORECAST

### Cumulative Cash flow to Port - Forecast vs. Actual



**Agreement:** 5% royalty for 12 years in California for two products (COASTALOCK interlocking tidal pool + pile encapsulation products) and \$500k cap