

# Sunken Seaweed

Sunken Seaweed is farming multiple seaweed species and developing a diversity of products from culinary seaweed to fertilizer



## PILOT PROJECT

In 2018, Sunken Seaweed partnered with the Port of San Diego to demonstrate the feasibility of seaweed aquaculture in San Diego Bay. Sunken Seaweed is an aquaculture start-up company led by two marine ecologists committed to pioneering sustainable seaweed aquaculture in and around San Diego Bay.

Sunken Seaweed established their seaweed hatchery at San Diego State University Marine Lab and installed their submerged pilot farm using assets managed by the Port in San Diego Bay. Since the start of the one-year pilot project, the company has been cultivating, outplanting, growing, monitoring, and harvesting several species of seaweed native to Southern California. Beyond commercialization, results from the pilot project are helping assess seaweed aquaculture's multiple co-benefits, from carbon sequestration and bioremediation to improving water quality and ecosystem productivity.

## CURRENT STATUS

In support of the pilot, the Port provided funding, permitting, and environmental review as well as access to Port-controlled land in San Diego Bay to establish the pilot farm. Sunken Seaweed has leveraged the assets and results from the pilot to obtain additional grant funding and permits to continue operations and measuring the ecosystem benefits and services that both seaweed and shellfish provide.

## HIGHLIGHTS



In 2020, Sunken Seaweed obtained grant funding from the US. Department of Energy ARPA-e program and Pacific States Marine Fisheries Commission to measure the ecosystem benefits and services provided by seaweed aquaculture and continue their pilot farm operation.

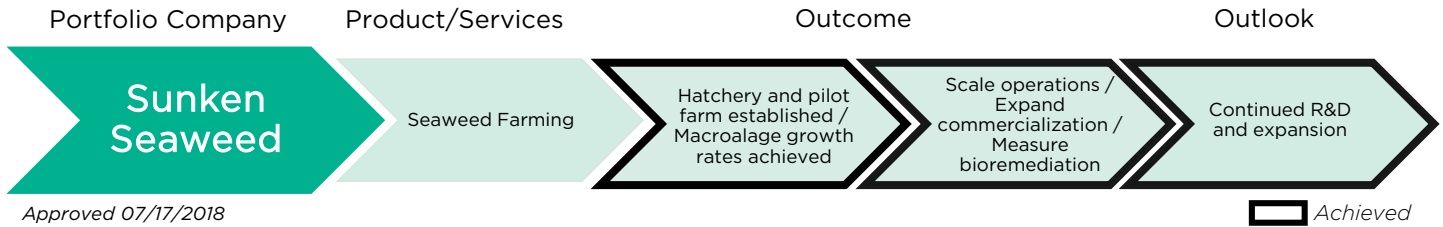


# Scorecard: Sunken Seaweed / Q1 FY21

PILOT TIMELINE: Board Approval: 07/17/2018 Start Date: 11/1/2018 End Date:11/1/2023

## PILOT OVERVIEW

Tracking benefits from pilot project to commercial success



## ENVIRONMENTAL & SOCIAL BENEFITS

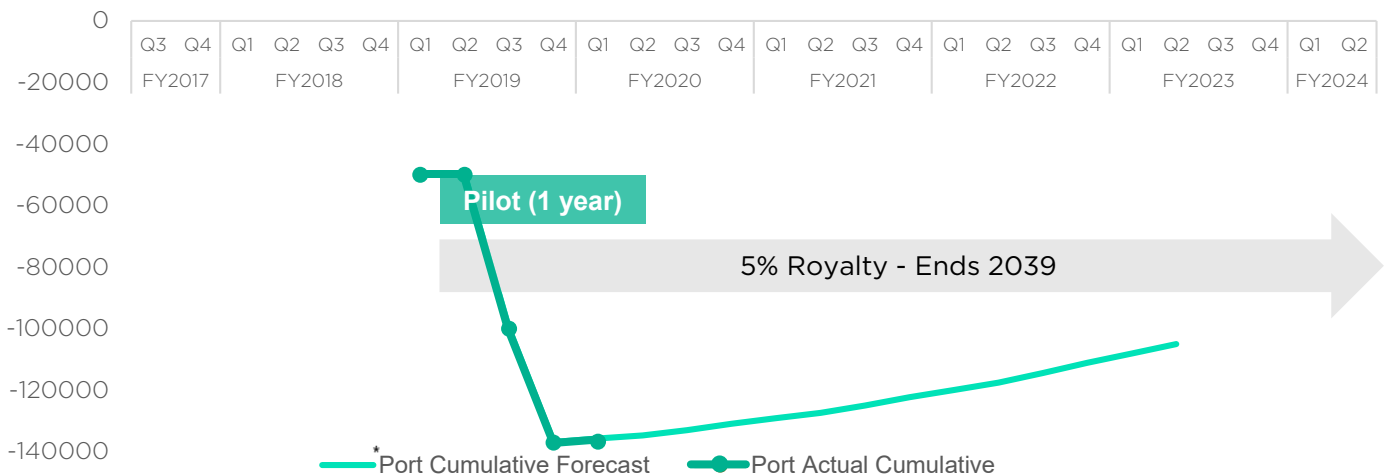
### Pilot Key Performance Indicators

OVERALL KPI (Port Fiscal Year)	Macroalgae growth rates	Innovation and Proof of Concept	Customer acquisition
Q4 FY 20 - Q3 FY21	<b>Ulva:</b> 50 lbs/week (land-based) <b>Gracilaria (Ogo):</b> no production due to Covid-19	Initiated a process with Humboldt Bay Harbor District to develop a land-based commercial farm in Humboldt County, CA  Exploring using seaweed as a tool for bioremediation in urban waterways through Arpa-E Grant and San Diego State University	No new customers
Q3 FY 20 - Q4 FY 20	<b>Gracilaria (Ogo):</b> 100 lbs/week (land-based)	Built a macroalgae tumble culture facility at Hubbs SeaWorld Research Institute through a Pacific States Marine Fisheries Commission Grant  Acquired permits to add shellfish to pilot farm at Grape Street pier to test 3D Ocean Farming model	ANIMAE, Wrench & Rodent, The Plot, and The Berry Good Food Foundation, Monterey Bay Seaweed, Superior Seafoods, Catalina Offshore Products

As per pilot project statement of work

## FINANCIAL FORECAST

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



**Agreement:** 5% royalty of worldwide gross revenue for 20 years

\*Revenue forecast based on sales projections submitted to Port