

San Diego Bay Aquaculture

San Diego Bay Aquaculture is specializing in growing marine shellfish to support sustainable aquaculture businesses in San Diego Bay.



PILOT PROJECT

In 2017, San Diego Bay Aquaculture (SDBA) partnered with the Port of San Diego to demonstrate an accelerated, year-round shellfish aquaculture nursery operation in San Diego Bay, using the Floating Upweller System (FLUPSY) technology. SDBA's principals have over a dozen years of experience in shellfish and seaweed farming, FLUPSY operations and aquafarm ownership.

A FLUPSY is a floating barge that serves as a shellfish nursery, growing oysters from seed (size of red pepper flakes) to juvenile stage (size of quarters). During the five-year pilot project SDBA will be importing and growing oysters and other shellfish to the juvenile stage, establishing health and growth baselines, and measuring the associated environmental benefits. The juvenile shellfish will be exported to grow-out locations outside of San Diego Bay. The goal of the pilot is to demonstrate that shellfish nursery operations in San Diego Bay are feasible.

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 FLUPSY. SDBA is rearing experimental batches of shellfish to verify growth performance, explore market diversification and further establish the health baseline record with a goal to obtain necessary export permits and regulatory approvals.

HIGHLIGHTS



- First commercial shellfish aquaculture operation in San Diego Bay.
- Upon securing all approvals and permits, scaled operations of the FLUPSY's annual capacity is expected to be up to 20 million oyster seed per year.
- Port supporting long-term planning effort to establish health baseline and measuring the associated environmental benefits.

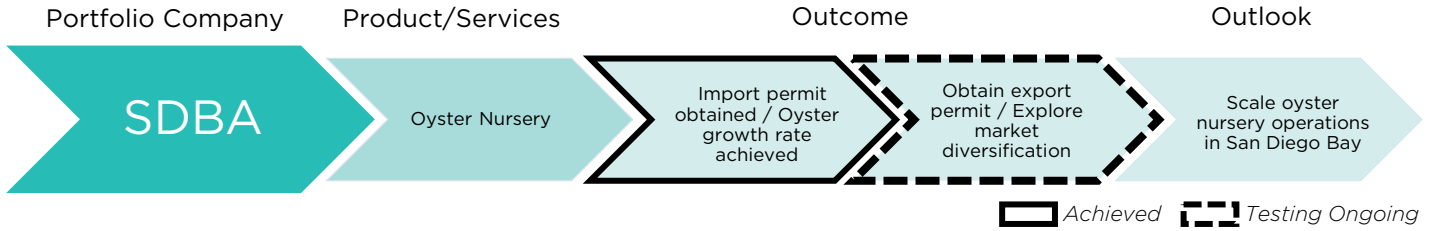


Scorecard: SDBA / FY21-22

PILOT TIMELINE: Board Approval: 6/20/2017 Start Date: 9/10/2018 End Date: 9/10/2023

PILOT OVERVIEW

Tracking progress from pilot project to commercial success



KEY PERFORMANCE INDICATORS & HIGHLIGHTS

| OVERALL KPI | Shellfish growth rate (shell length/day/individual) | | | Rate of customer acquisition | FLUPSY energy efficiency | Effectiveness of operations |
|---------------------|--|--|---|------------------------------|--------------------------|---|
| | Diploid Pacific Oyster | Manila Clam | Triploid Pacific Oyster | | | |
| FY 21-22 Highlights | Pilot continues to track growth performance of experimental batches of shellfish to further develop the health baseline required to secure export markets through FY 2023. Market diversification opportunities are underway that include abalone grow out, research on barnacles for culinary uses, as well as shellfish production for restoration projects. | | | | | |
| FY20-21 Highlights | 0.64 mm/day 4 weeks to juvenile (20mm) | 0.13 mm/day 4 weeks to juvenile (20mm) | 0.3 mm/day 4-6 weeks to juvenile (20mm) | N/A | N/A | Growth rate 3X faster than anticipated from seed to juvenile (1.5 to 20mm) |



Pacific Oysters 1.5 to 20mm in four weeks



Market-size Abalone

San Diego Bay Aquaculture continues experimental testing of different species to develop health baseline and explore new market opportunities.