

# FREDsense Technologies

FREDsense technologies is developing custom field-enabled technologies for rapid detection of chemical compounds in water



## PILOT PROJECT

In 2020, FREDsense partnered with the Port of San Diego to develop a portable five-in-one field-testing sensor device to provide real-time metals analysis for stormwater monitoring. FREDsense is an early-stage company comprised of a multidisciplinary team of water scientists, biologists, and engineers specializing in custom development of unique water quality solutions.

During the two-year pilot project, FREDsense is proposing to develop, optimize and commercialize a real-time five-in-one automated sensor device for metals in water samples. The proposed metals include aluminum, copper, lead, zinc and nickel, all of which are monitored in the Port's stormwater programs. The project's approach will help stormwater programs by providing real-time data in the field, enabling adjustments to Best Management Practices (BMPs) quicker than with laboratory data that can take several weeks for results.

## CURRENT STATUS

In support of the pilot, the Port is providing funding, and expert consultation with Port staff regarding use cases and other information based on Port stormwater experience. FREDsense will create a prototype and test the sensor device to monitor stormwater. Results from the pilot will allow for case study development in preparation for full commercialization and regulatory approvals.

## HIGHLIGHTS



FREDsense has validated its core technology through pilot projects for various applications within the mining remediation and water industries. FREDsense is currently focused on marketing and sales, while continuing research and development aimed at diversifying the company's line of products applications and reducing production costs.

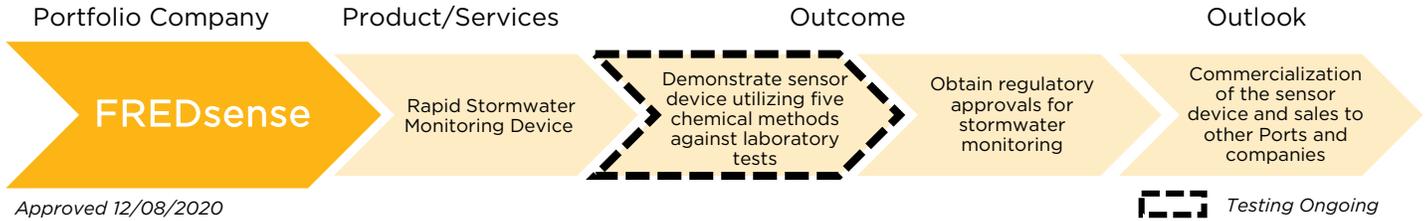


# Scorecard: FREDsense / Q1 FY21

PILOT TIMELINE: Board Approval: 12/08/2020 Start Date: 01/01/2021 End Date:01/01/2023

## PILOT OVERVIEW

Tracking benefits from pilot project to commercial success



## ENVIRONMENTAL & SOCIAL BENEFITS

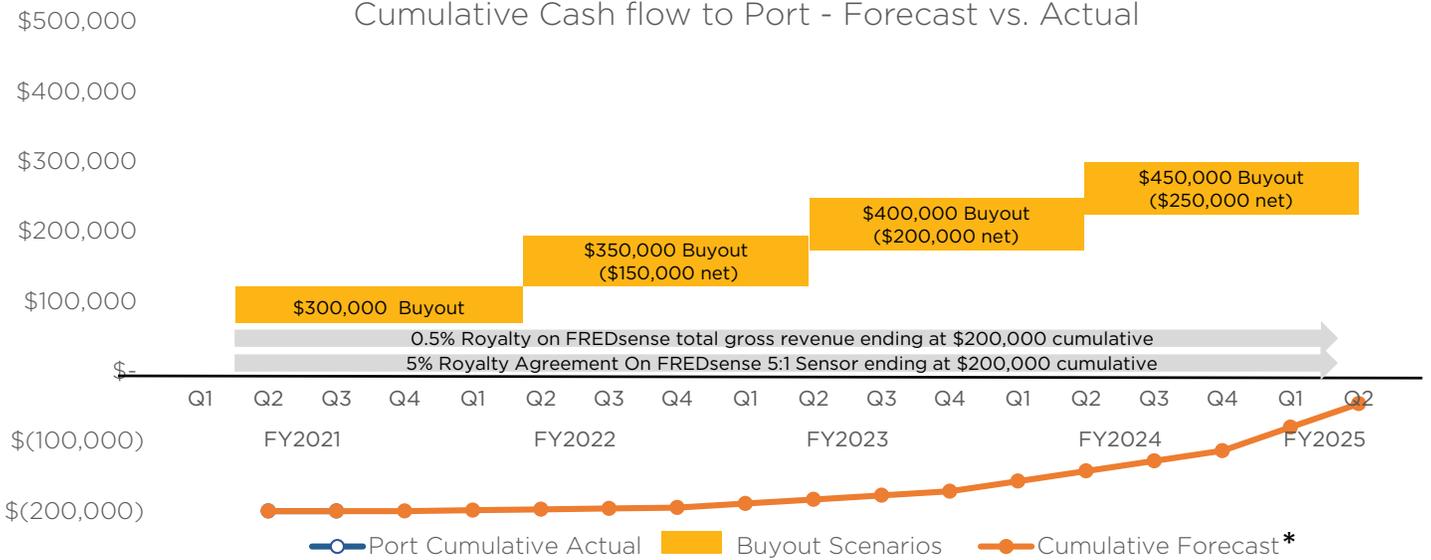
### Pilot Key Performance Indicators

OVERALL KPI (Port Fiscal Year)	Demonstration of Hardware System	Proof of Concept / Case Study Development	Customer acquisition
FY 21-23	<p>During the two-year pilot project, FREDsense will develop a portable field-testing sensor device to monitor stormwater. The company will utilize their pre-existing titration platform optimized for the environmental remediation industry to produce an automated testing system for stormwater analysis. FREDsense will utilize the Port's current stormwater sampling program to compare and validate against known laboratory samples. Upon successful customization of the five-in-one sensor device, FREDsense will produce a case study that demonstrates its effectiveness and potential application to stormwater monitoring. The case study will be presented to regulatory agencies to achieve certification of their rapid testing methodology for regulatory and permit compliance monitoring.</p>		

As per pilot project statement of work

## FINANCIAL FORECAST

Cumulative Cash flow to Port - Forecast vs. Actual



\*Agreement: 3% residual royalty on worldwide gross revenue for a period of 5 years starting at \$200,000 cumulative.