

# Hohonu

Nationwide Water Monitoring: Scientific Rigor, Community Impact

# Hohonu: Academic DNA, Commercial Efficiency





#### Born at University of Hawai'i Research Lab

Monitoring tools to aid in restoration of ancient Hawaiian fishponds



#### \$2M in NSF Funding

"Democratize access to ocean observing technologies"



#### Hohonu, Inc Commercialized

To meet demand that a research lab couldn't meet



### SECOORA Work Begins

In partnership with American Shore & Beach Preservation Association



#### Nationwide Deployments

100+ deployed locations across 14 states and 1.3 million hours of monitoring

#### The Team is Growing



Software Engineering



Data Science



Customer Support



Manufacturing

#### **Powered by Academic and Climate Tech Funding**













### **How It Works**



#### **Affordable Sensors**

Internet-Connectivity + 100% Solar Power

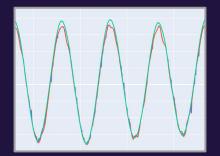


- IKEA-Level User Installation on Bridges, Docks, Piers
- Compact Hold w / 1 Hand
- Ultra Low Power → Weeks Without Charge

#### **NOAA-Grade Backend**

Processing for Automated

Data QA/QC + More



- Trustworthy Data via NOAA-Grade Methodologies
- Data Conversions depending on sensor environment
- 80% Better Predictions compared to NOAA tidal

#### **SaaS Products**

Frontend Products + API's
For Easy Access







- Anyone can access data captured by Hohonu sensors
- Alerts for early flood warnings
- Reports for post-flood analysis

# Water Level Monitoring Across the US



120+

1.7 Million

14+





Deployments

Hours Monitored

**US States** 



#### **Customers Include:**











# **Community Engagement**





# Wide Variety of Applications



**Emergency Management** 

Marine Navigation

Infrastructure Projects

**Flood Models** 

Student Projects

Educational Visibility

Protect High Value Properties



Local Governments



Ports, Marinas, Harbors



Engineering Consultants



Research & Academics



Primary Education



Aquariums & Museums



Homeowners Associations

# Scientific Excellence For Each Deployment





#### **Hardware Standardization**

Robust, Industry-Standard Sensors



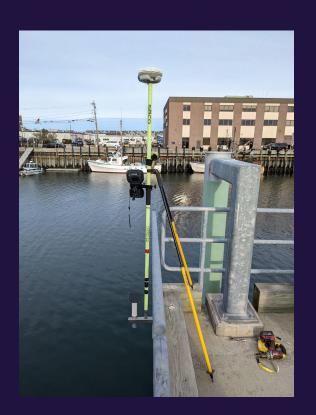
#### **Vertical Control Management**

Processes and protocol for NAVD88 surveying (With feedback from SECOORA)



#### **QARTOD + Tidal Analysis Datum Calculations**

NOAA-consistent methodologies with transparent documentation (With feedback from NOAA personnel)



### Mobile App and Robust API





#### TideCast™ for iOS (Android beta coming soon)

- Live tide data from 400 Hohonu sensors and NOAA stations
  that refreshes every 6 minutes
- TideCast proprietary prediction algorithm that uses

  machine learning and refreshes every 6 hours based on live sensor data
- Weather conditions view wind, sun and moon phase, temperature, and rain at each station (data source: NOAA).

# Case Study: SECOORA Water Level Network



# Hohonu has deployed 57 water level stations with SECOORA





**57 Hohonu water level stations** fed directly through multiple systems



**41 communities** are collecting water level **4,000 unique visitors** to Hohonu dashboard



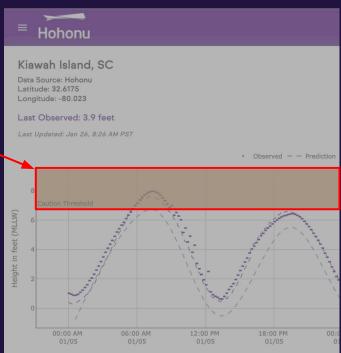
Deployed **13 active monitoring sites** between Fort Pulaski and Charleston NOAA tidal stations

# Case Study - Kiawah Island, SC



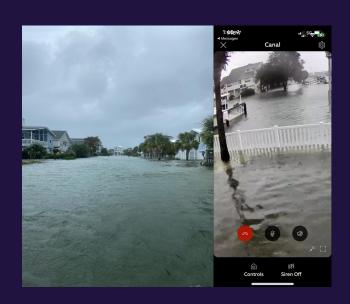
Kiawah Island, SC is using Hohonu data to preemptively close roads

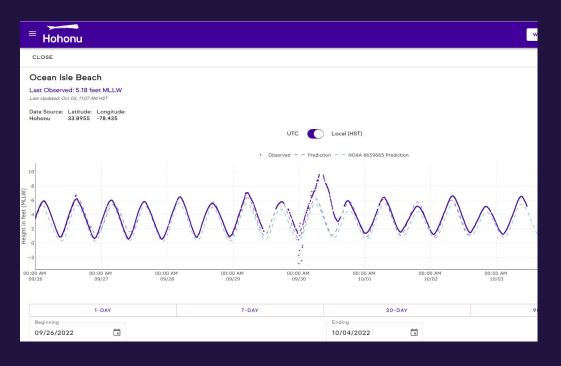




### Hurricane Ian, Ocean Isle Beach



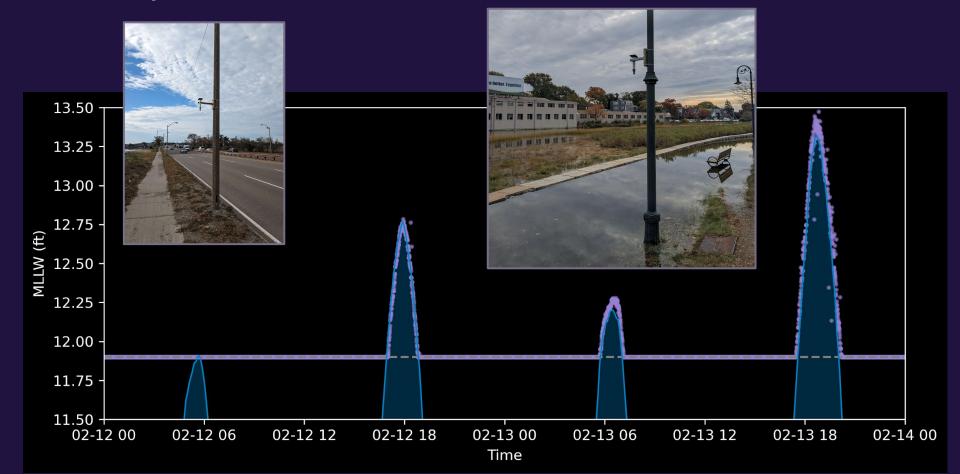




Recorded the highest water levels in Ocean Isle Beach, NC which can now be used to set thresholds for future events in conjunction with local camera feeds

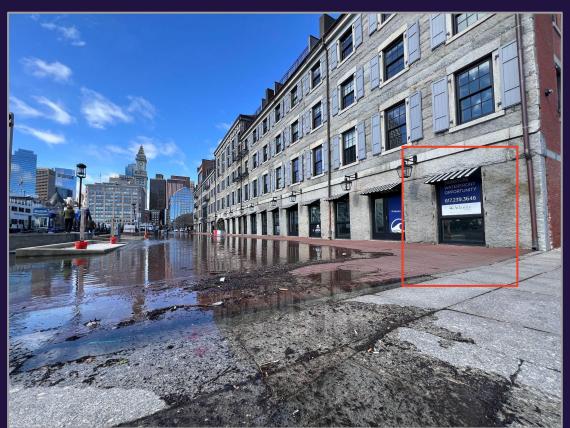
### Boston, MA





# "Signature Waterfront Opportunity"



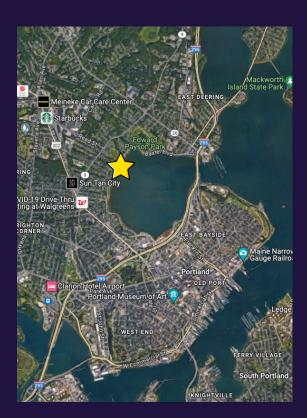




### Portland, ME



The city was able to prove that recently-installed outfall valves nearly eliminated flooding at a water level ~two feet higher than prior water levels that had caused widespread flooding.



### York, ME



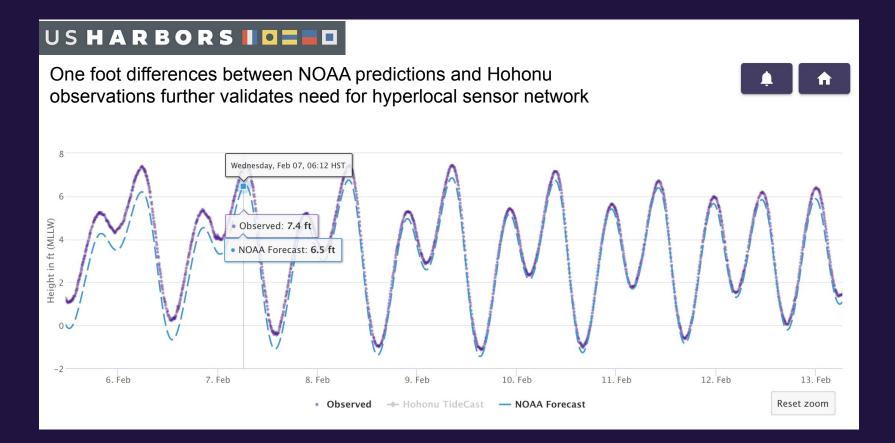
The Town of York has a state road and evacuation route that overtops with tides during the winter

They need to understand water levels in a specific area due to near-term development and with assistance with a mass alerting system



# San Francisco, CA

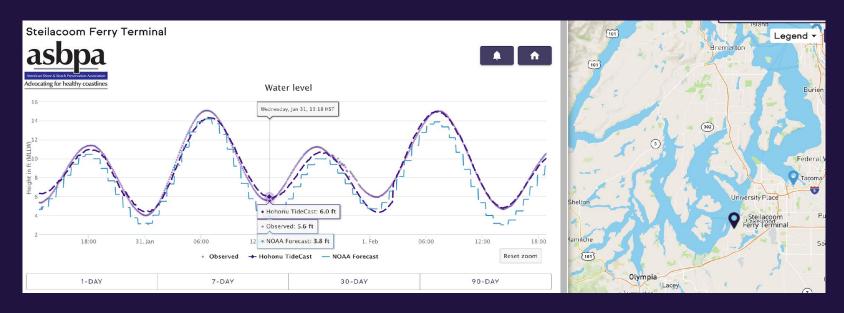




### Steilacoom, Tacoma, WA



The City of Tacoma has installed a gauge to better understand King Tides in the Puget Sound in order to develop a mass alerting system



### Partnering for a Resilient Future



Hyperlocal monitoring and actionable data are the future of climate resilience
Hohonu wants to help lead this transformation

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