

Joint Ocean Acidification and Hypoxia (OAH) Monitoring Task Force: Status of California's OAH Monitoring Assets Inventory

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West Coast OAH Monitoring Task Force

Composition:

- West Coast states and British Columbia (PCC)
- Interagency Working Group on OA (IWG-OA)
- West Coast IOOS Regional associations

Vision: Improved OAH monitoring capacity along the West Coast through jointly building an integrated monitoring network aimed to address management needs

- Step 1 Inventory current monitoring assets
- Step 2 Assessment of gaps in monitoring network
- Step 3 Prioritize and fill gaps to improve network

West Coast OAH Monitoring Task Force

- Builds on recommendations from the West Coast OAH Science Panel
 - 2013-2016
- Accomplishes PCC initiative to design and implement coordinated, effective monitoring and research
 - June 2016
- Stems from discussions and correspondence between the PCC, NOAA and the IWG-OA
 - 2014-2016

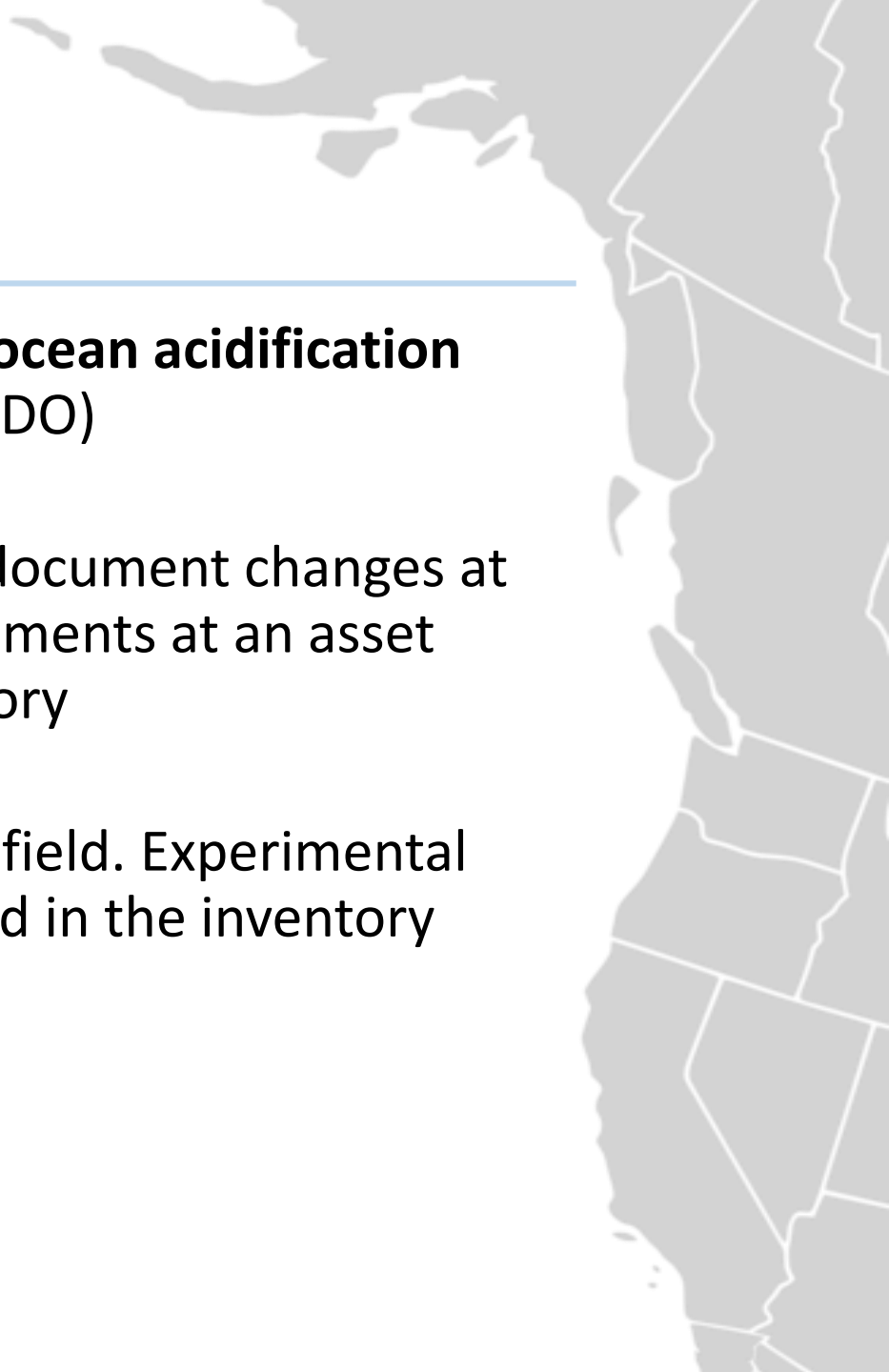


Inventory Process

- 1) Template developed by state/federal Monitoring Task Force
- 2) Inventory template distributed to monitoring practitioners
- 3) Inventory leads consolidated and reviewed responses
- 4) Quality control follow up (e.g. unclear or missing information)
- 5) Identified consistent definitions of fields and classifications
- 6) Inventory uploaded to ArcGIS online and Web App created
- 7) Round of review using the Web App to catch errors
- 8) Integration from each jurisdiction (AK, BC, WA, OR, CA)

Inclusion Criteria

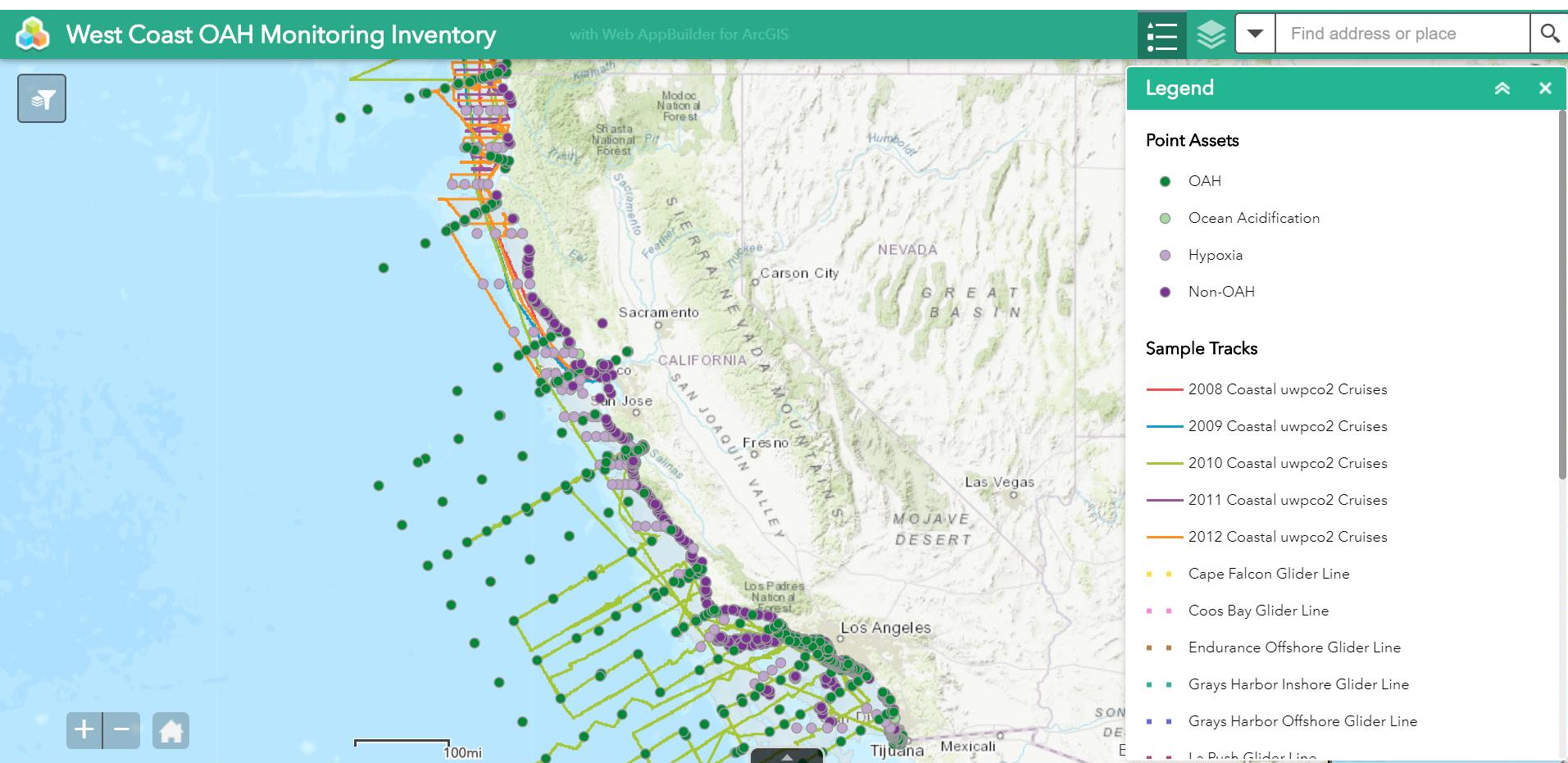
- Measure at least one metric of **ocean acidification** (pH, pCO₂, DIC, TA) or **hypoxia** (DO)
- **Repeatedly measure** assets to document changes at a site over time. Single measurements at an asset were not included in the inventory
- Measure OAH conditions in the field. Experimental manipulations were not included in the inventory



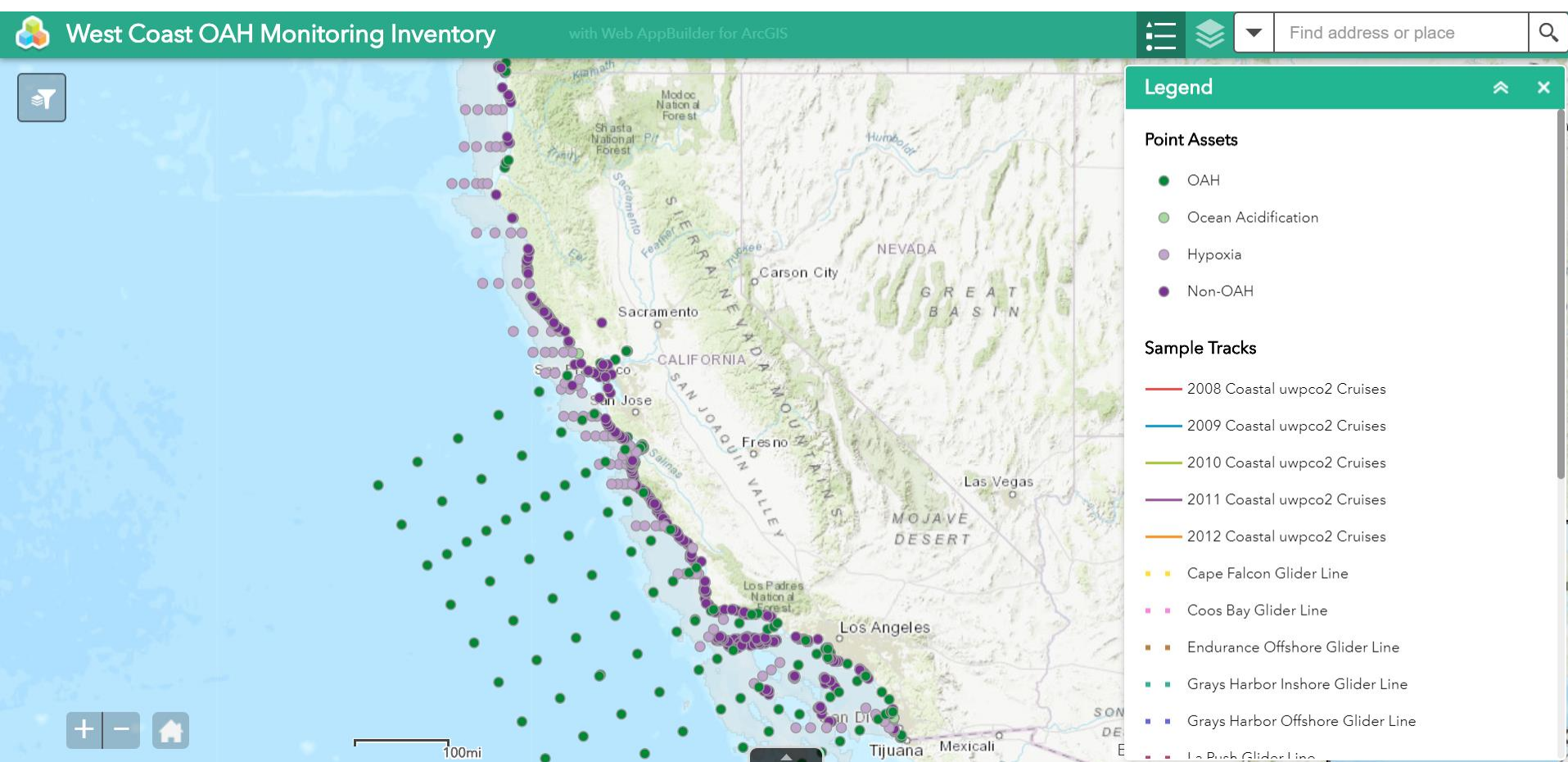
- Basic project info
- Location and depth
- OAH parameters and methods/instruments, WQ and nutrients
- Temporal characteristics of sampling
- Coupled biological sampling
- Funding, longevity of project

Category/Location										Depth (If known, specify depth within range)											
Surface Underway				Glider			Remote sensing			Surface	>surface -5 m	6-15 m	16-30 m	31-60 m	61-100 m	>100+ m	Full water column	Daily	Weekly		
Start Lat, Lon		End Lat, Lon		Start Lat, Lon		End Lat, Lon		Lat	Lon												
OAH Parameters (If not measured, insert NA.)																					
Water sample										In situ sensor						Temperature					
pCO2 sw	pCO2 air	pH	TA	DIC	Carbonate Ion			DO	pCO2sw	pH	DIC	DO									
What other non-biological data being measured at this data site? If so, what?										What biological data collected at this site? * Please also fill in biology details tab											
Salinity		Pressure		Turbidity		DOC		Other (please describe)		Chlorophyll		Nutrients				yttoplank*	ooplanto*	Shellfish			
												Nitrate	Ammonium	Phosphate	Silicate	Iron					
What biological data collected at this site? * Please also fill in biology details tab										Measurement technique/method				Instrument type(s) (Model and model number)		QA/QC Procedure?					
Nutrients				yttoplank*		ooplanto*		Shellfish	Fish	Coral	Seagrass	Kelp	Other					Measurement			
Nitrate	Ammonium	Phosphate	Silicate	Iron																	
X	X	X	X																		
X	X	X	X																		
X	X	X	X																		
X	X	X	X																		
X	X	X	X																		
Monitoring Duration (MM/YY)										Are data easily accessible/ publicly hosted? If so, where?						How is this data collection being funded?					
Measurement period				Start date			End date or ongoing?														
1996-Present				1996			ongoing									Annual funding sources					
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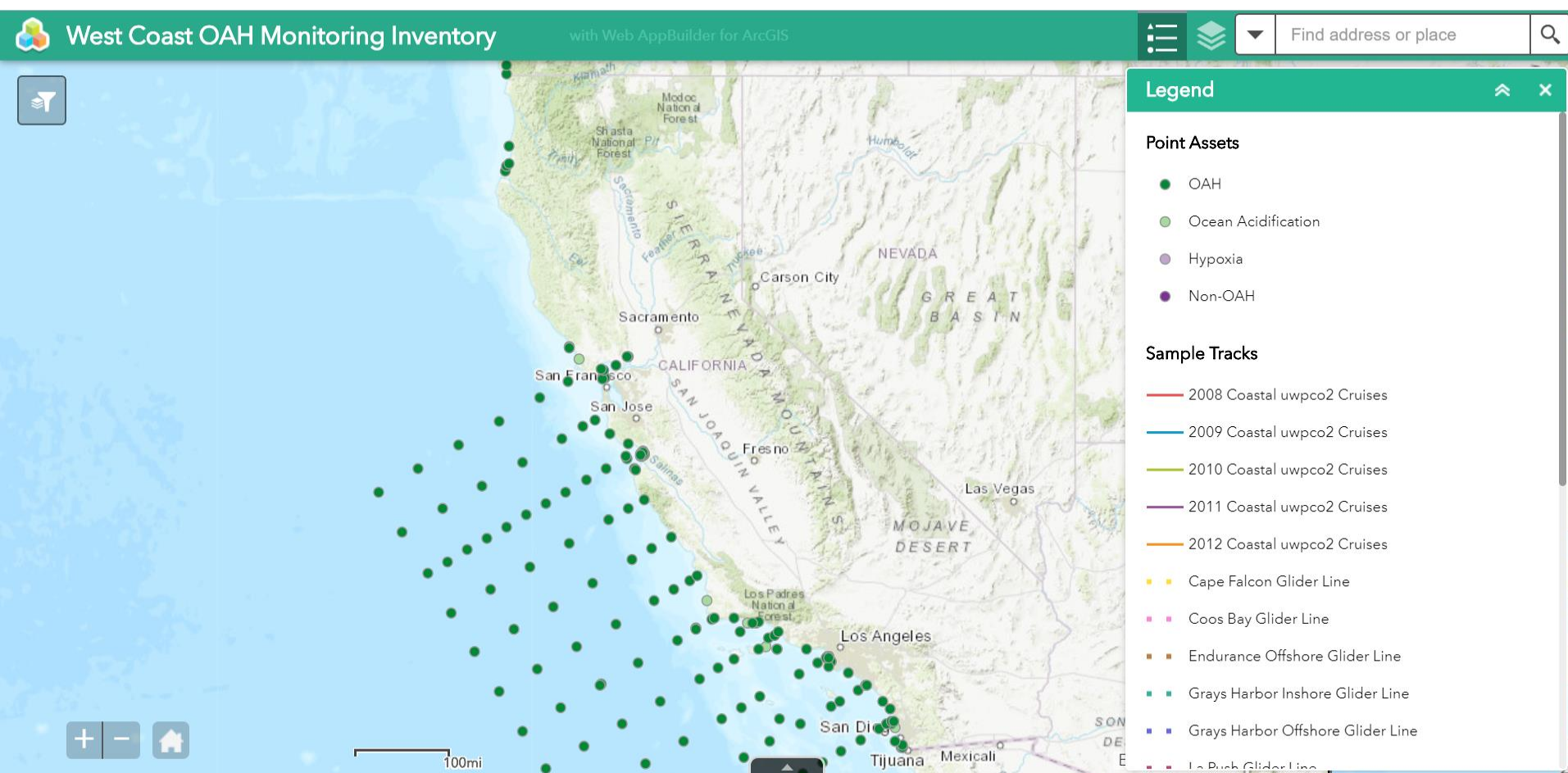
West Coast OAH Monitoring Inventory



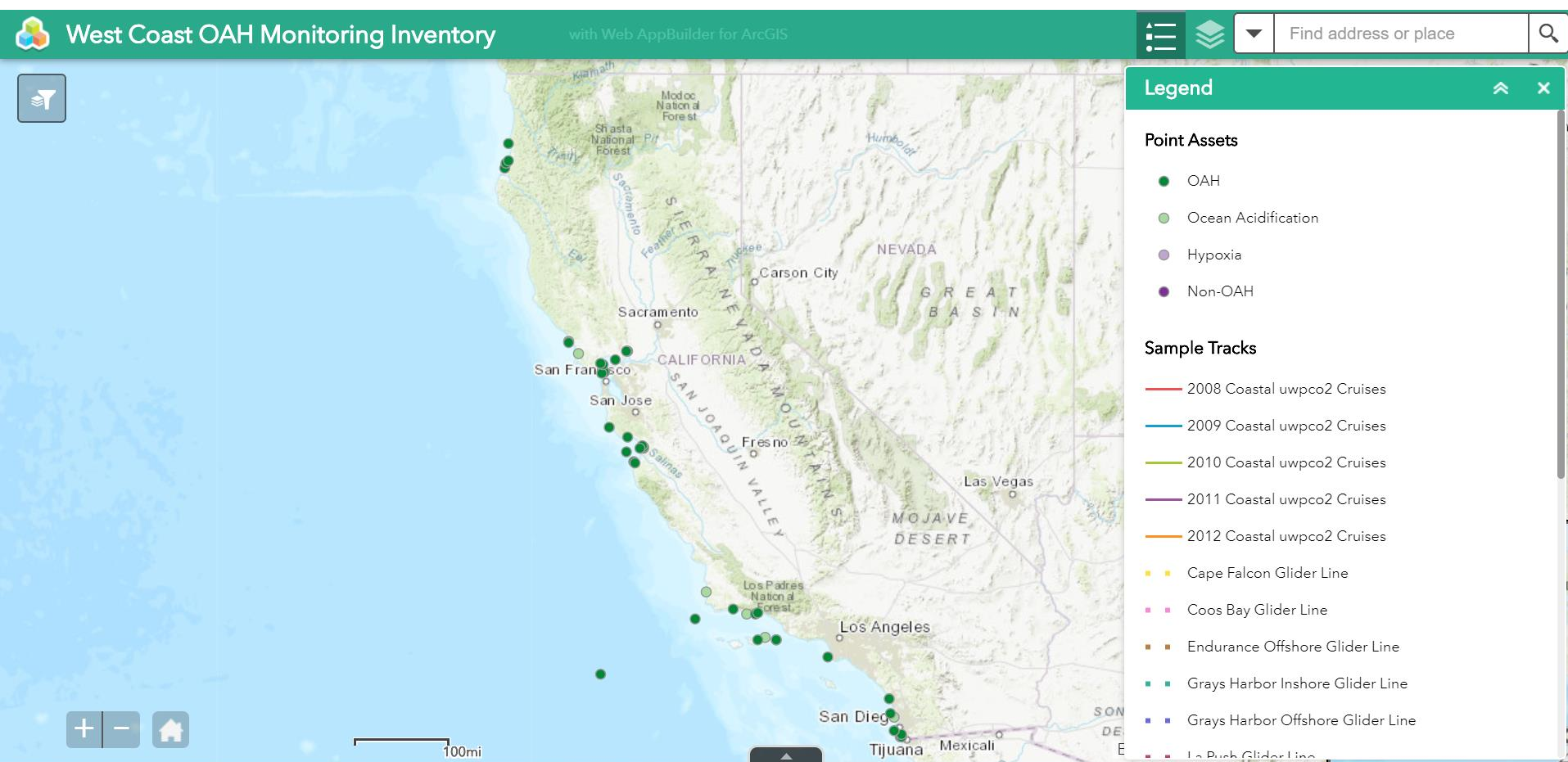
Active Monitoring Assets



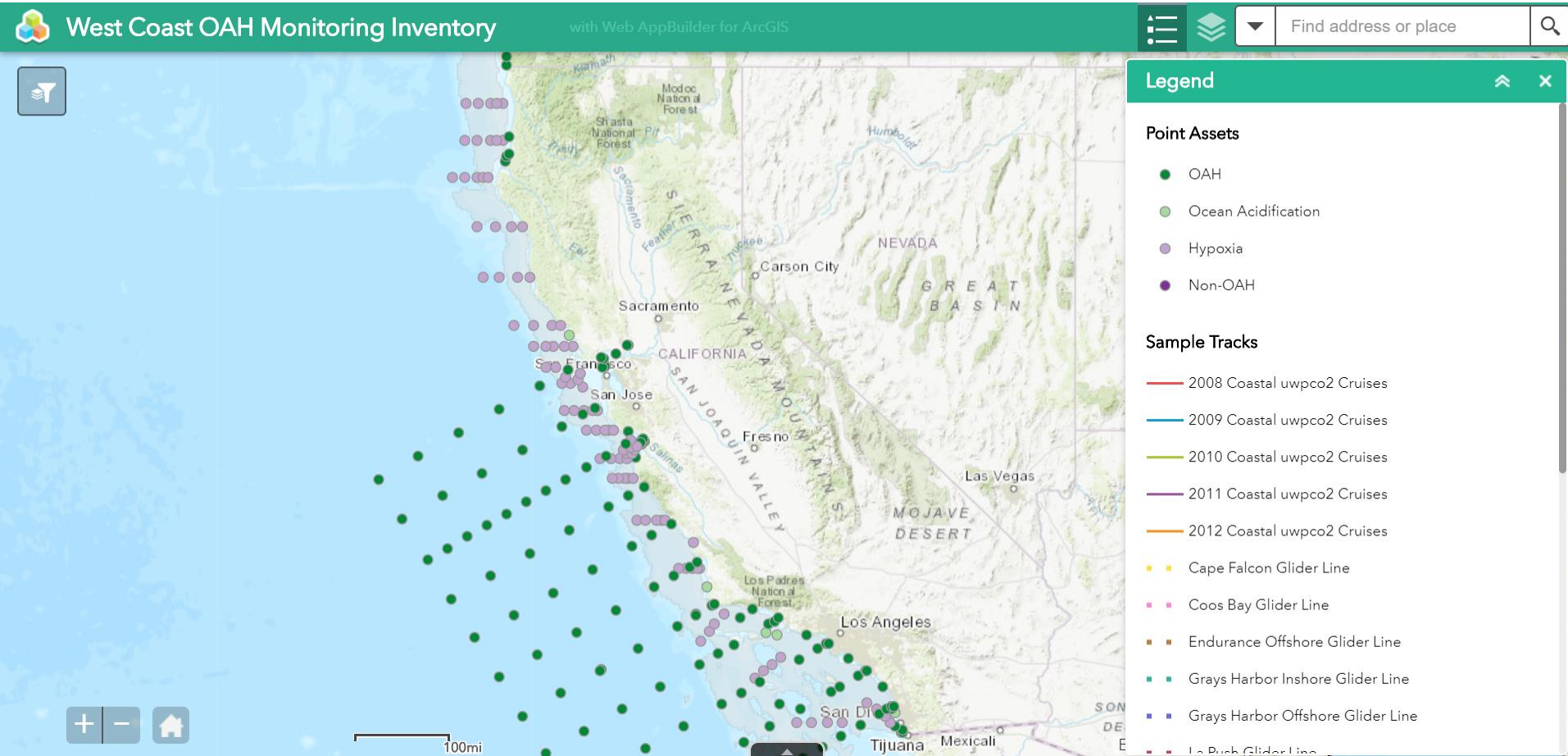
Active Ocean Acidification Monitoring Assets



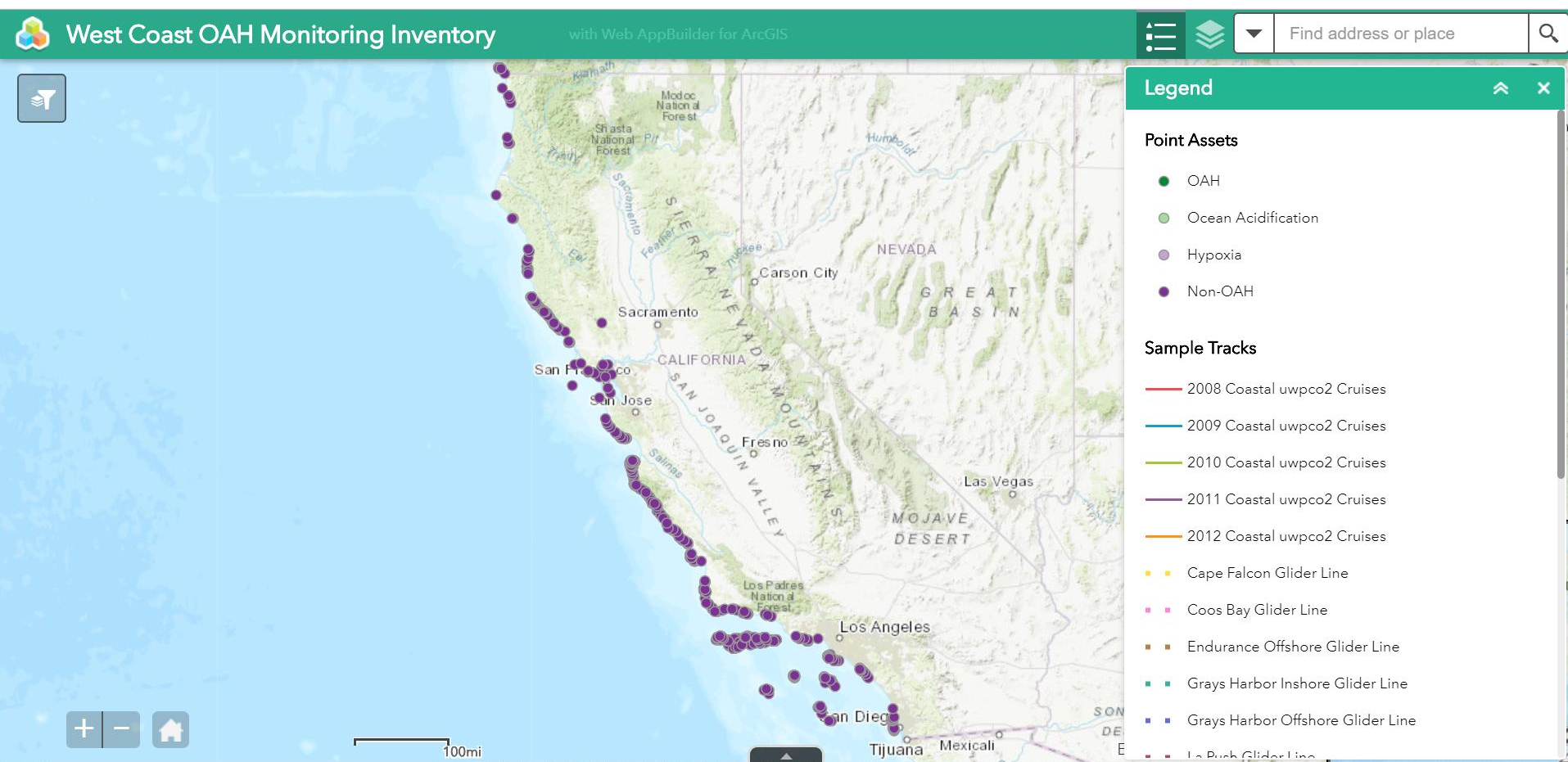
Active and Continuous OA Monitoring Assets



Active assets monitoring both physical/chemical & biological observations



Active assets monitoring ONLY biological observations



Next Steps

- Incorporating additional monitoring information from Alaska and British Columbia
- Work with partners to host this information online
- Lead federal/state discussion to define gaps and opportunities (Winter 2019)