

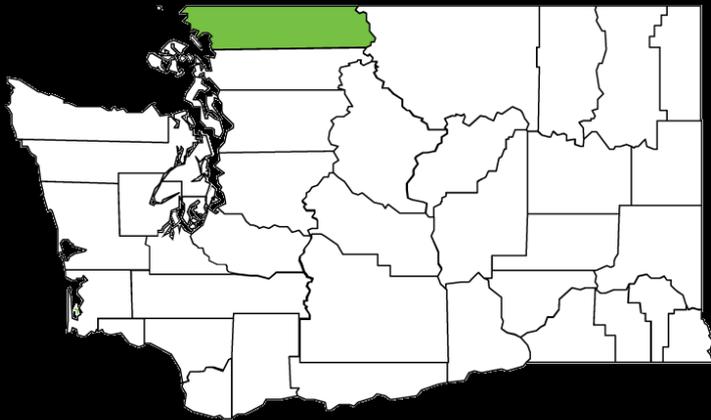
Interactive Mapping as a Tool for Collaborative Water Quality Data Management and Visualization

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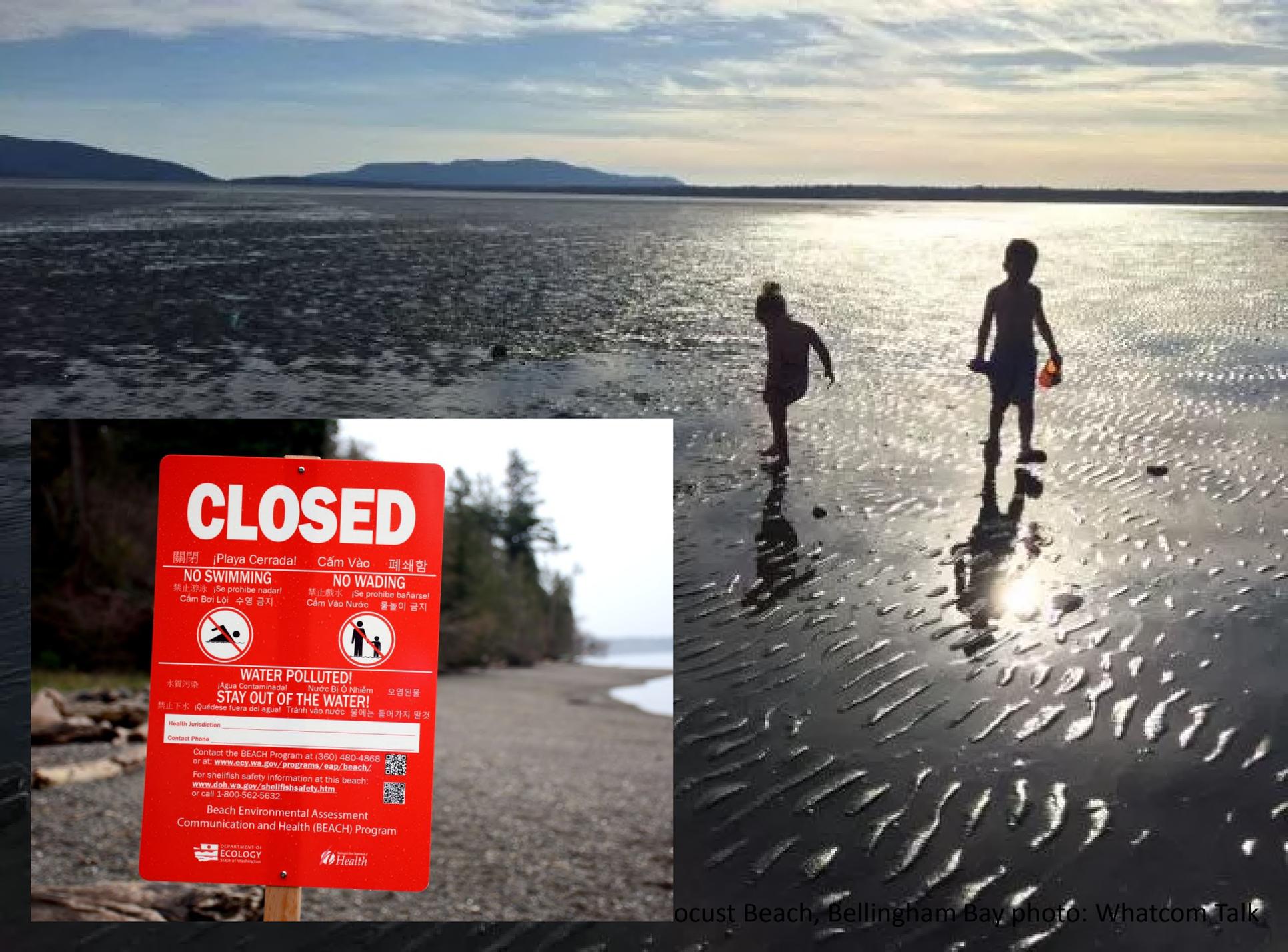






Whatcom raspberries photo: Tim Chandonnet

Tim Chandonnet
www.timchandonnet.com



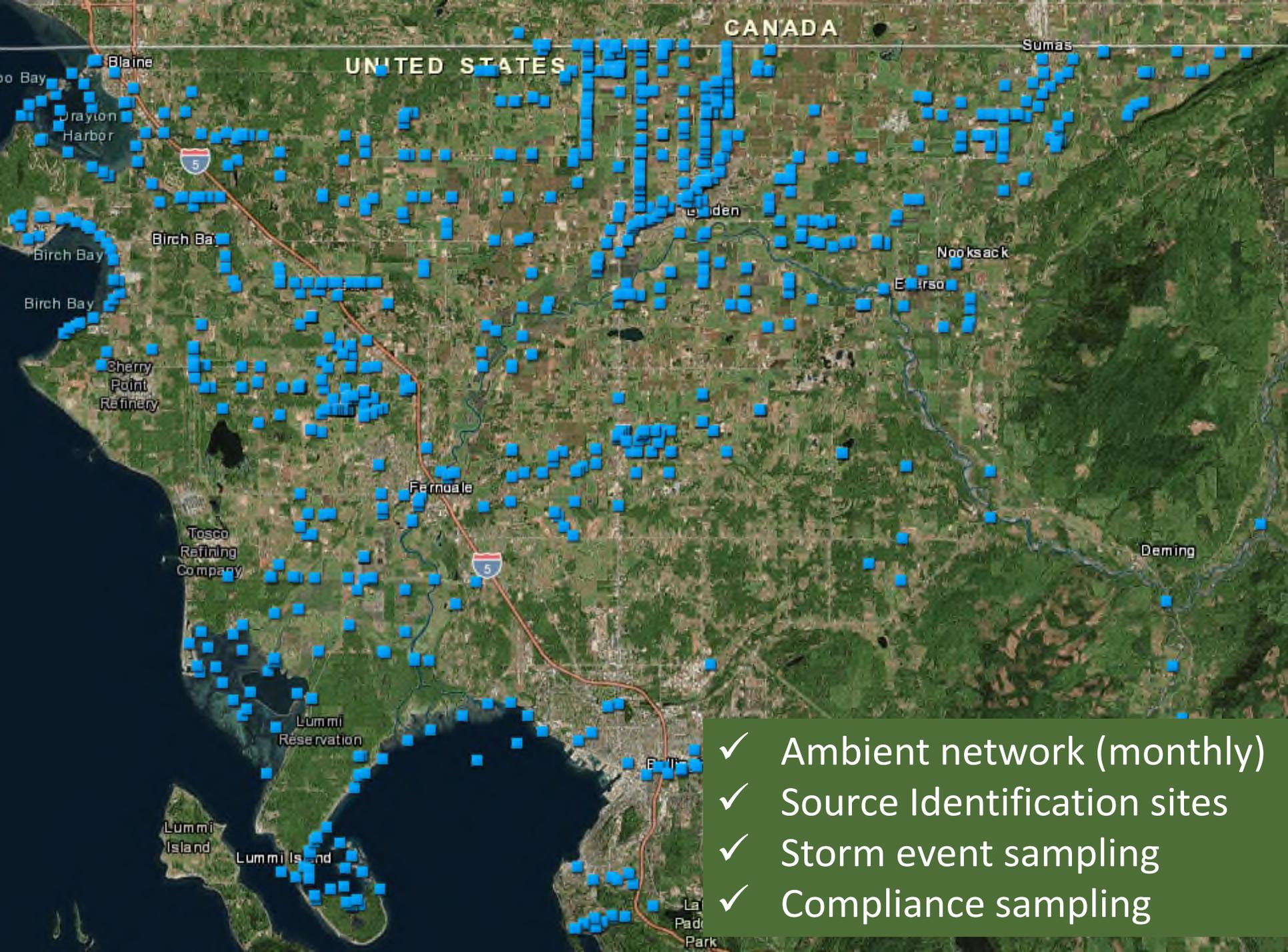
ocust Beach, Bellingham Bay photo: Whatcom Talk

WA Shellfish Initiative -
A commitment to
restore and expand
shellfish resources in
Washington State



WHATCOM CLEAN WATER PROGRAM

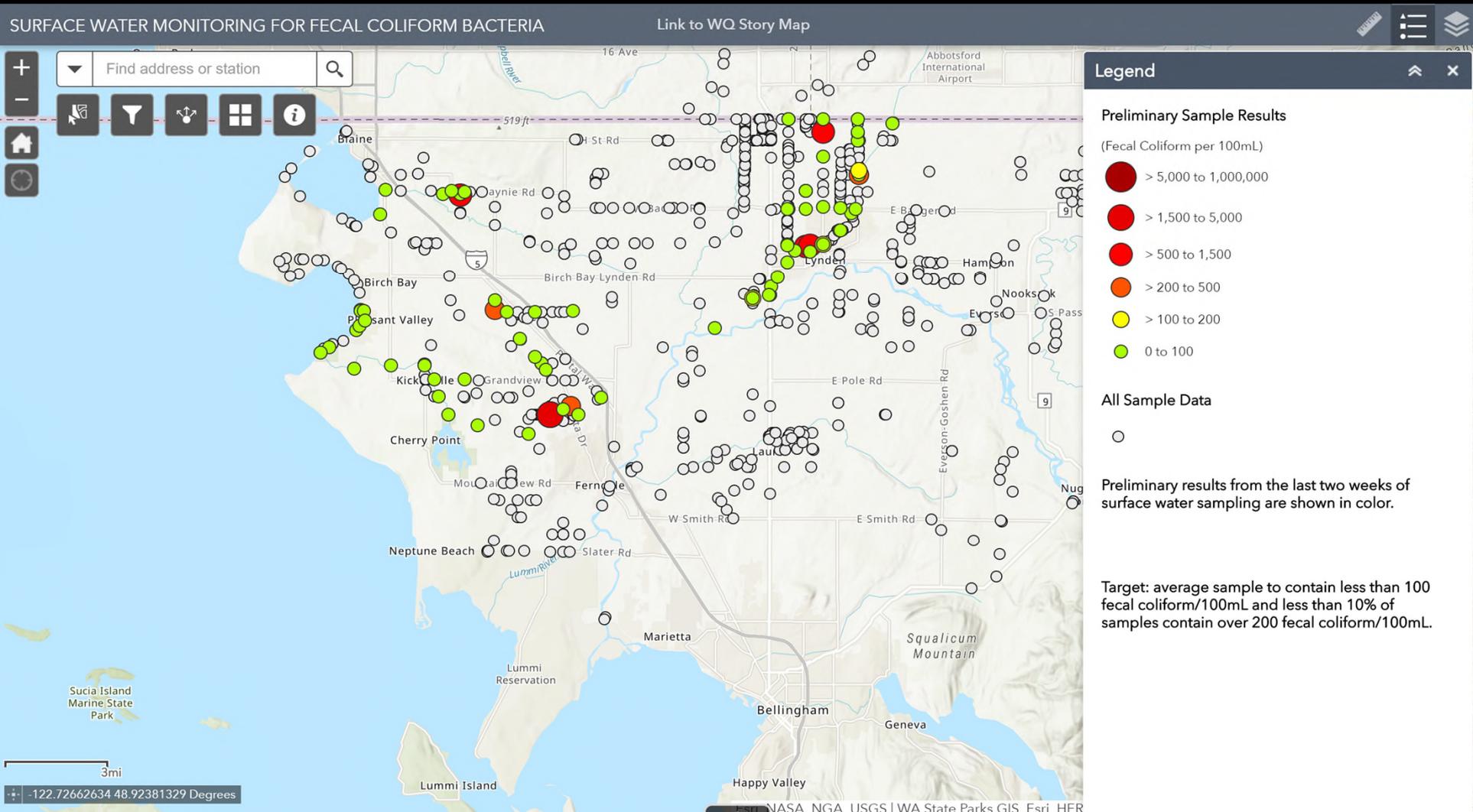




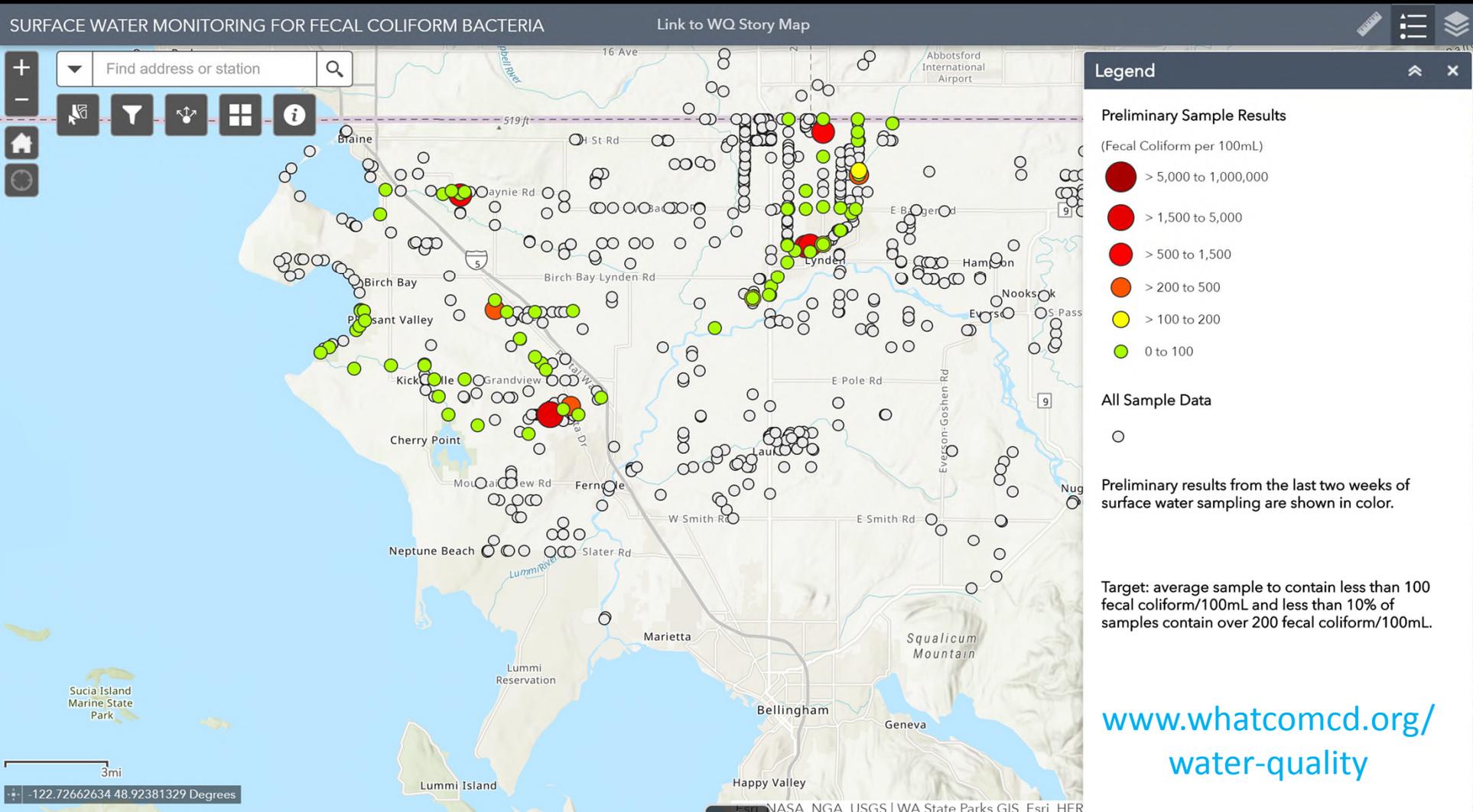
- ✓ Ambient network (monthly)
- ✓ Source Identification sites
- ✓ Storm event sampling
- ✓ Compliance sampling

OUR SOLUTION: AN INTERACTIVE ONLINE RESULTS MAP

www.whatcomcd.org/water-quality

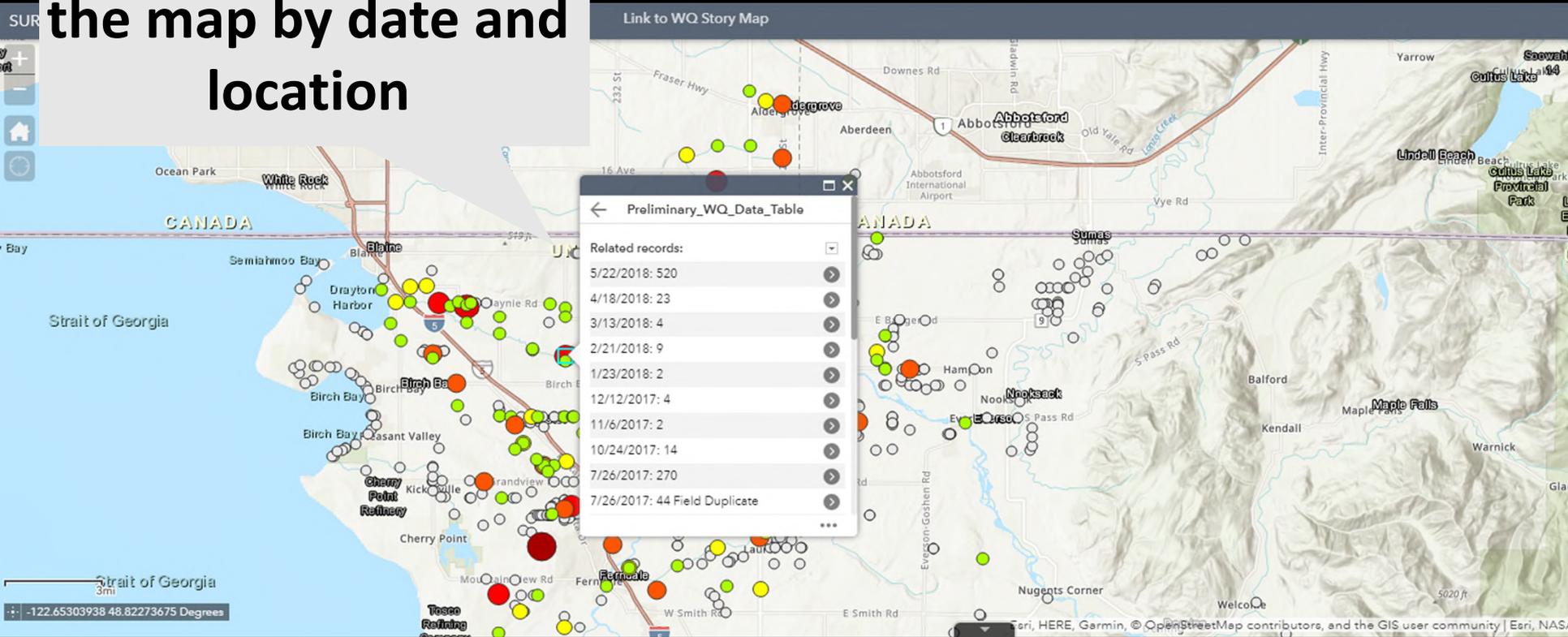


- ✓ Three counties in NW Washington
- ✓ 15+ agencies, tribes and volunteer groups
- ✓ 7000+ samples at 350+ sites in 2018



View the data within the map by date and location

www.whatcomcd.org/water-quality

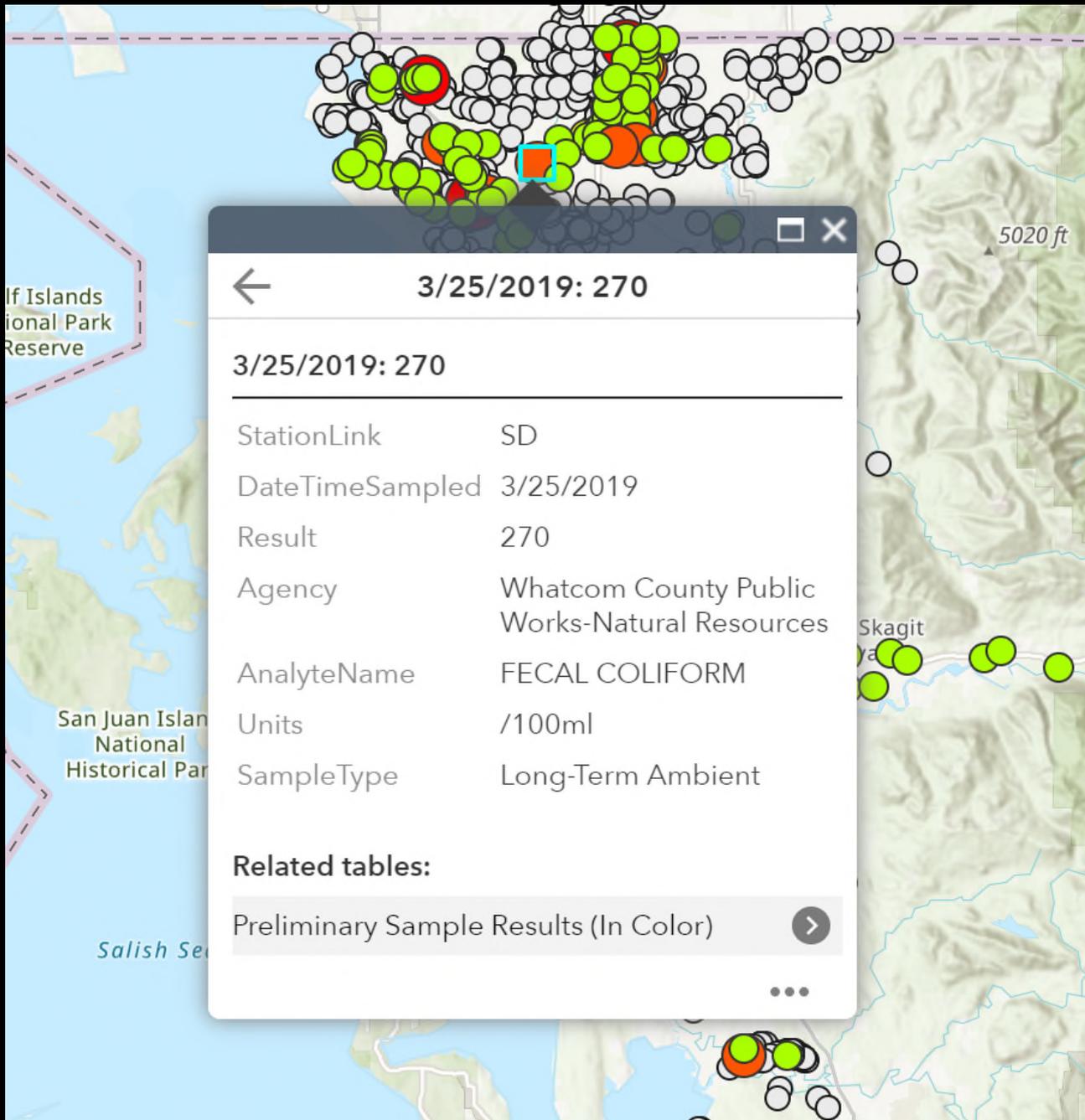


All WQ Results Monitoring Stations

Options Filter by map extent Zoom to Clear selection Refresh

StationLink	DateTimeSampled	Result	Agency	AnalyteName	Units	FieldDuplicate	SampleType	LabQualifier	ProjectName	ql	AnalyticalLabCode
D1	5/31/2018	106	Whatcom County Public Works	FECAL COLIFORM	cfu/100mL		Short-Term Ambient		Drayton Focus - 813002	2	C874
CA9b	5/31/2018	117	Whatcom County Public Works	FECAL COLIFORM	cfu/100mL		Short-Term Ambient	EV	Drayton Focus - 813002	2	C874
CA14a	5/31/2018	430	Whatcom County Public Works	FECAL COLIFORM	cfu/100mL						
Cal-6.2	5/31/2018	106	Whatcom County Public Works	FECAL COLIFORM	cfu/100mL						
CA14c	5/31/2018	153	Whatcom County Public Works	FECAL COLIFORM	cfu/100mL	Field Duplicate	Short-Term Ambient		Drayton Focus - 813002	2	C874

Download the data as csv file



3/25/2019: 270

3/25/2019: 270

StationLink	SD
DateTimeSampled	3/25/2019
Result	270
Agency	Whatcom County Public Works-Natural Resources
AnalyteName	FECAL COLIFORM
Units	/100ml
SampleType	Long-Term Ambient

Related tables:

Preliminary Sample Results (In Color)



Context is everything!

About



Washington State uses fecal coliform bacteria as an indicator of water quality for safety of recreational contact in freshwater. Fecal coliform bacteria are found in human and animal feces (poop). Detection in a creek is a sign that pathogens from these wastes may be polluting the water. Human contact with fecal contaminated waters can cause illnesses such as gastroenteritis, skin rashes and upper respiratory infections. Various agencies collect the water samples to help identify bacteria pollution sources spread across the landscape, those preliminary results are found in this map.

Paired with an ESRI Story Map for additional context

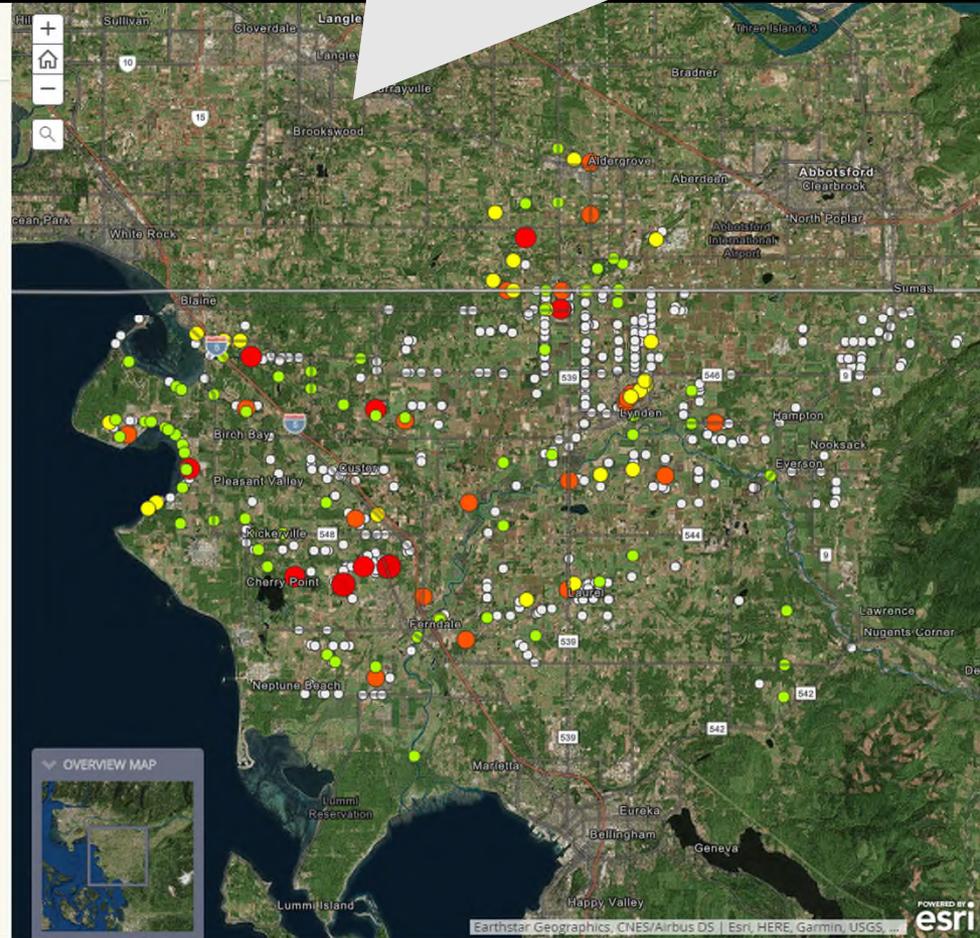
Click here for a direct link to Results Map



Improving Water Quality: Identifying Sources and Finding Solutions



Keeping our waters clean means keeping our waters safe for all to enjoy.



www.whatcomcd.org/water-quality

[Click here for a direct link to Results Map](#)

Improving Water Quality: Identifying Sources and Finding Solutions

February 26, 2019 - March 11, 2019

WSU AgWeather recorded rainfall for the period:

Lynden: 0.49 inches
 Sakuma: 0.91 inches
 Stanwood: 0.78 inches



Sadly, there is no magic poop fairy that picks up pet waste from yards, trails and parks. You are that special person tasked with keeping it clean. Do your part and pick up after your

[Click here for a direct link to Results Map](#)

Improving Water Quality: Identifying Sources and Finding Solutions

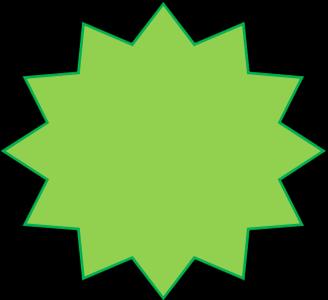
Good News!

Let's start the weekend with a good story to put a little pep in our step.

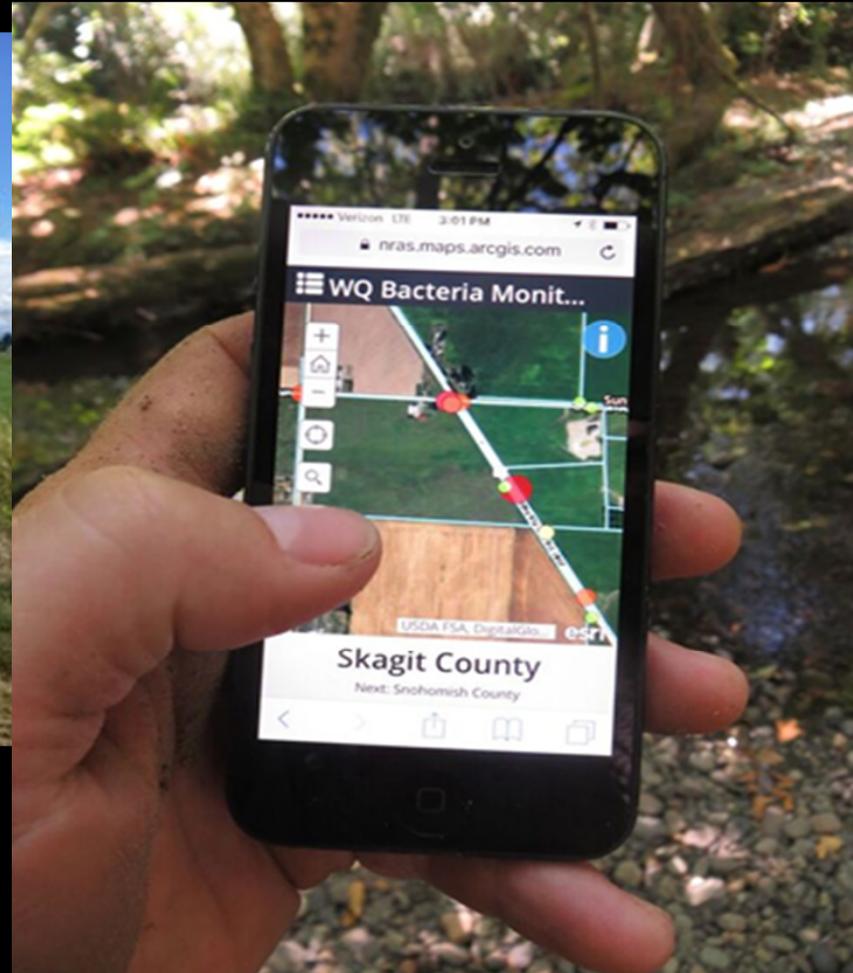
The Whatcom Conservation District shared this video about the the work done on Appel Farms in partnership with the Habitat and Restoration team of the Conservation District.



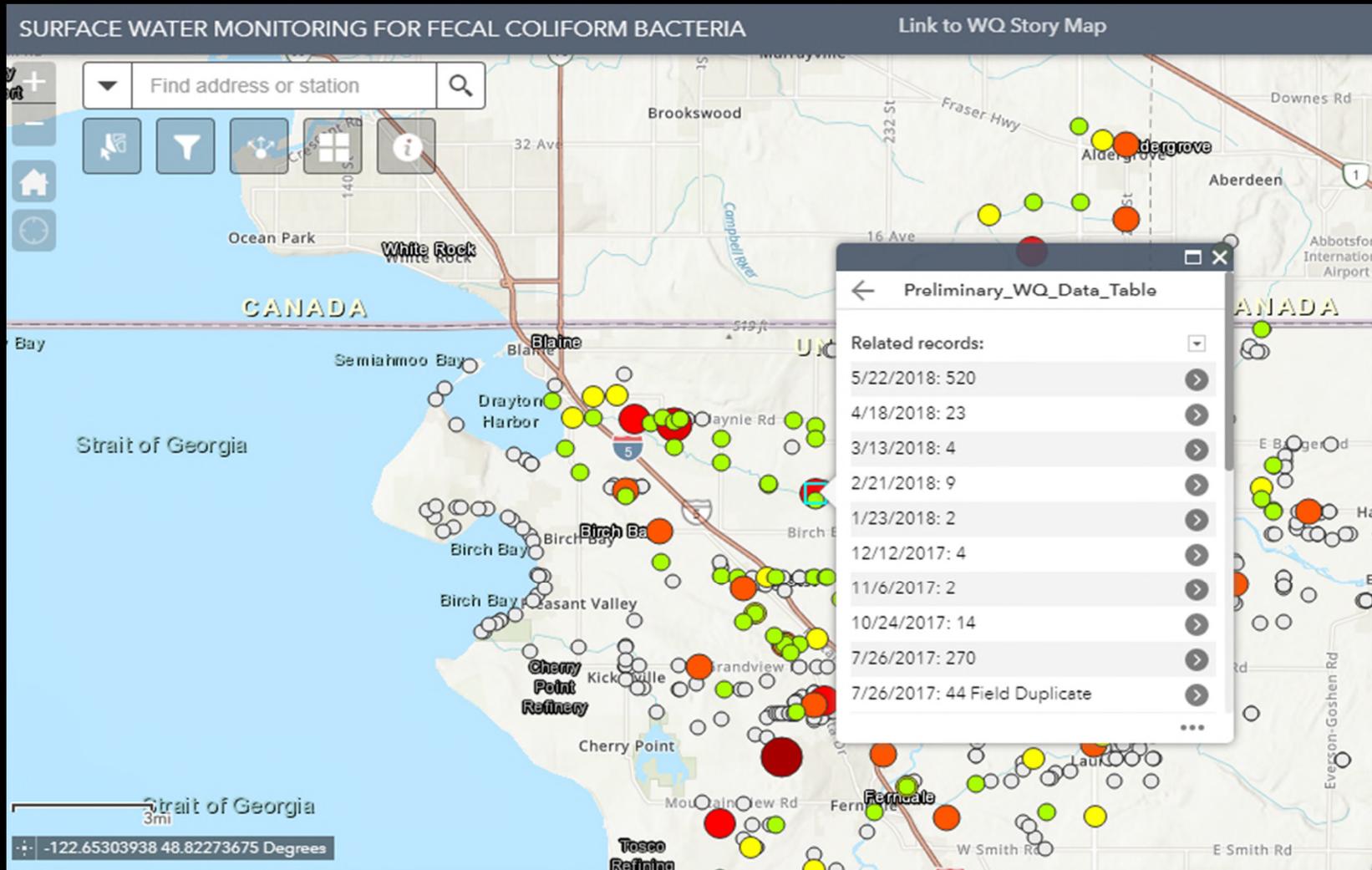
1:49



Field staff have *quick* mobile access to sites and results



Improved coordination between partner agencies



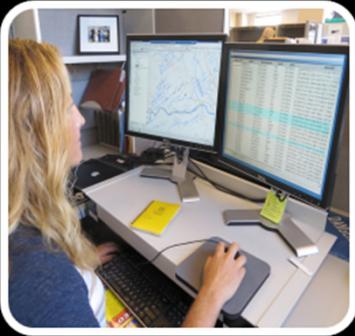


Public outreach and trust building

A photograph of two men walking down a dirt aisle in a large barn. The man on the left is wearing a white t-shirt, dark pants, and a green baseball cap. The man on the right is wearing a light-colored long-sleeved shirt, dark pants, and a brown hat. They are walking towards the camera. On either side of the aisle, there are rows of cows in stalls. The background shows a view of a green, hilly landscape through the open end of the barn. The title 'Public outreach and trust building' is overlaid in black text on a white banner across the top of the image.

- ✓ Direct access to results
- ✓ Transparency in the process
- ✓ Builds awareness and encourages dialogue

Three Lessons Learned...



You don't need to be a GIS pro.
(Learn new skills!)



Continually re-evaluate.
(Does it serve your audience?)



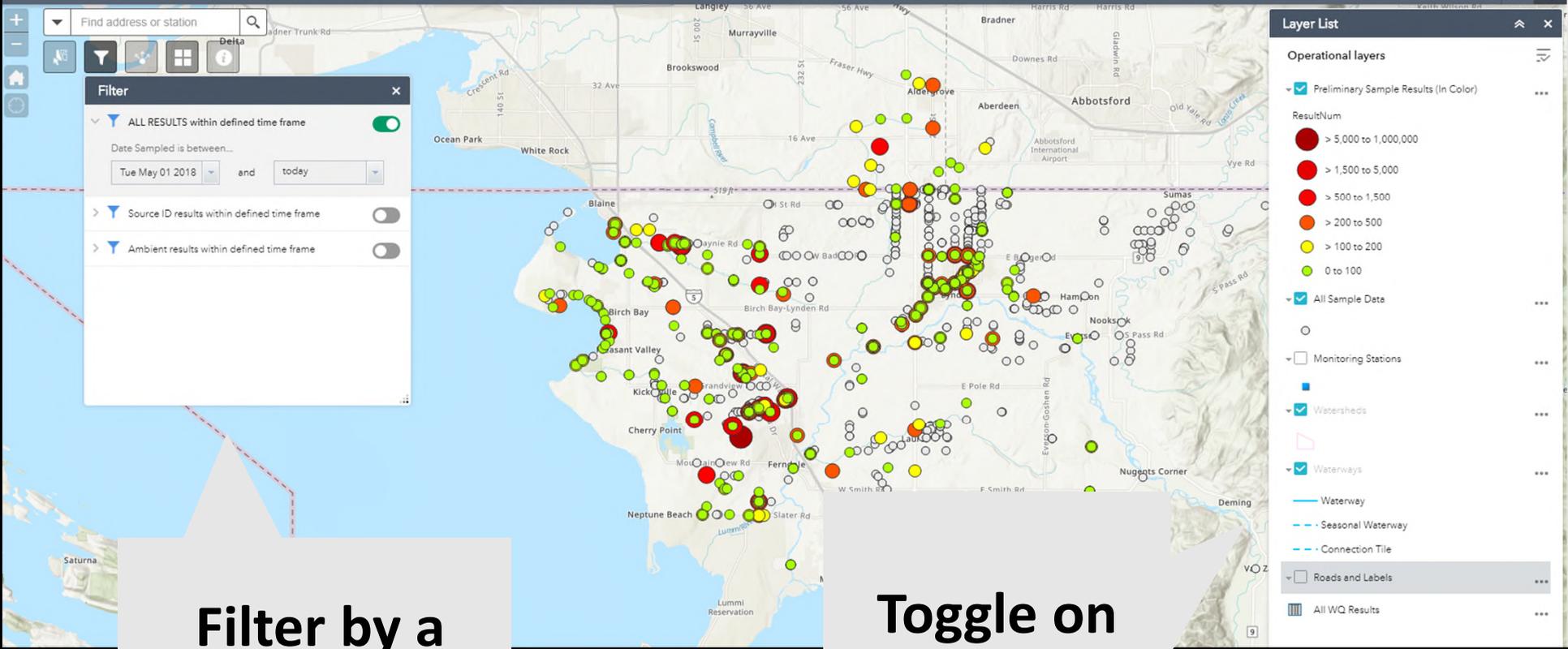
Keep it simple.

THANKS TO PROJECT PARTNERS!



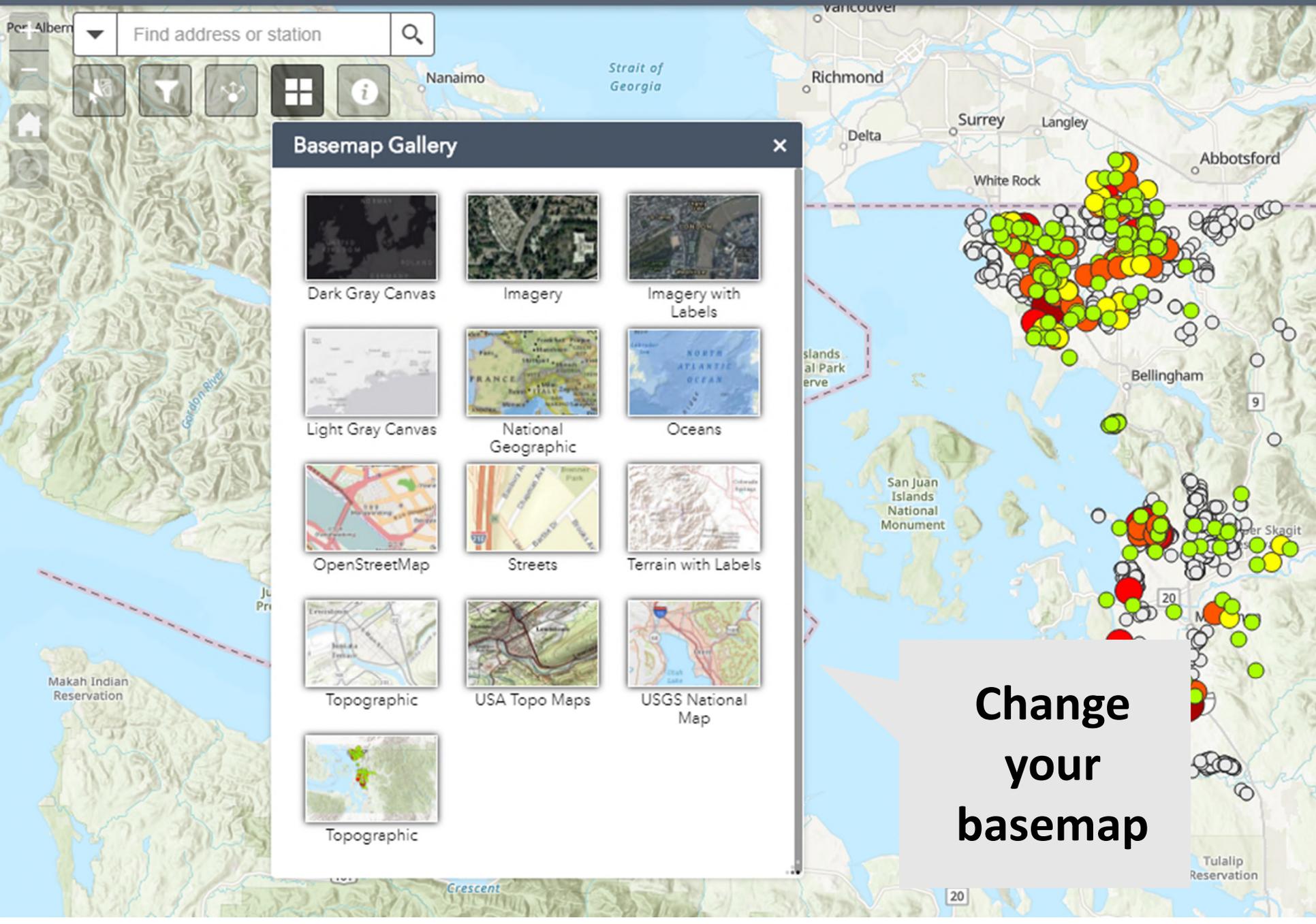
QUESTIONS?

Meg Harris, Whatcom CD
mharris@whatcomcd.org



**Filter by a
specific
date range**

**Toggle on
and off
layers**



▼ Find address or station 🔍



Basemap Gallery

Dark Gray Canvas	Imagery	Imagery with Labels
Light Gray Canvas	National Geographic	Oceans
OpenStreetMap	Streets	Terrain with Labels
Topographic	USA Topo Maps	USGS National Map
Topographic		

**Change
your
basemap**

Laboratory results

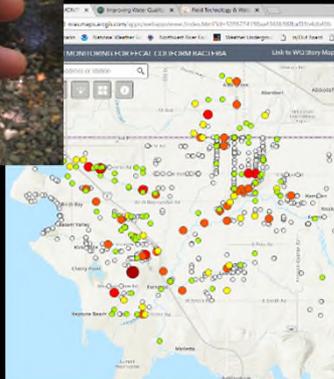
A detailed data form for water quality monitoring. It includes fields for 'Sample Collection' (Date, Time, Location), 'Sample Analysis' (Parameter, Result, Unit), and 'Sample Collection' (Date, Time, Location). The form is filled with handwritten data and has a signature at the bottom.

Each sampling partner reviews their preliminary data

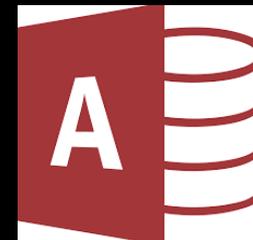


How are results posted to the map?

Results are available online for the public and agency staff



WCD and WSDA coordinate data management



Public outreach and trust building

