

# Pollution Identification and Correction Open House March 20, 2019



WASHINGTON STATE  
UNIVERSITY  
EXTENSION



CLALLAM COUNTY  
Environmental Health  
SERVICES



Jamestown S'Klallam Tribe



Clallam  
Conservation  
District

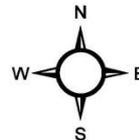
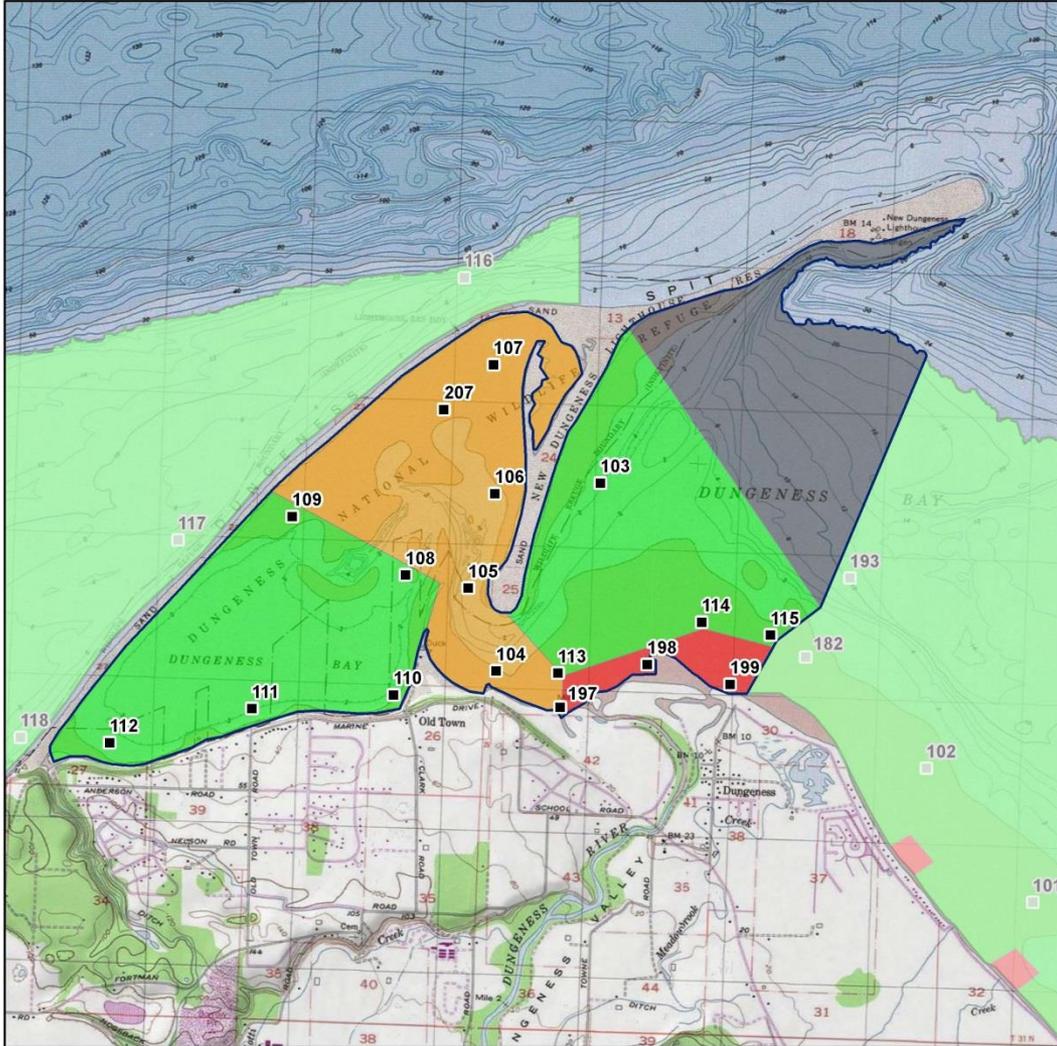


**Streamkeepers**  
OF CLALLAM COUNTY

<http://arcg.is/1Orbjf>

“This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement PC-01J8001-0 to Washington State Department of Health. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.”

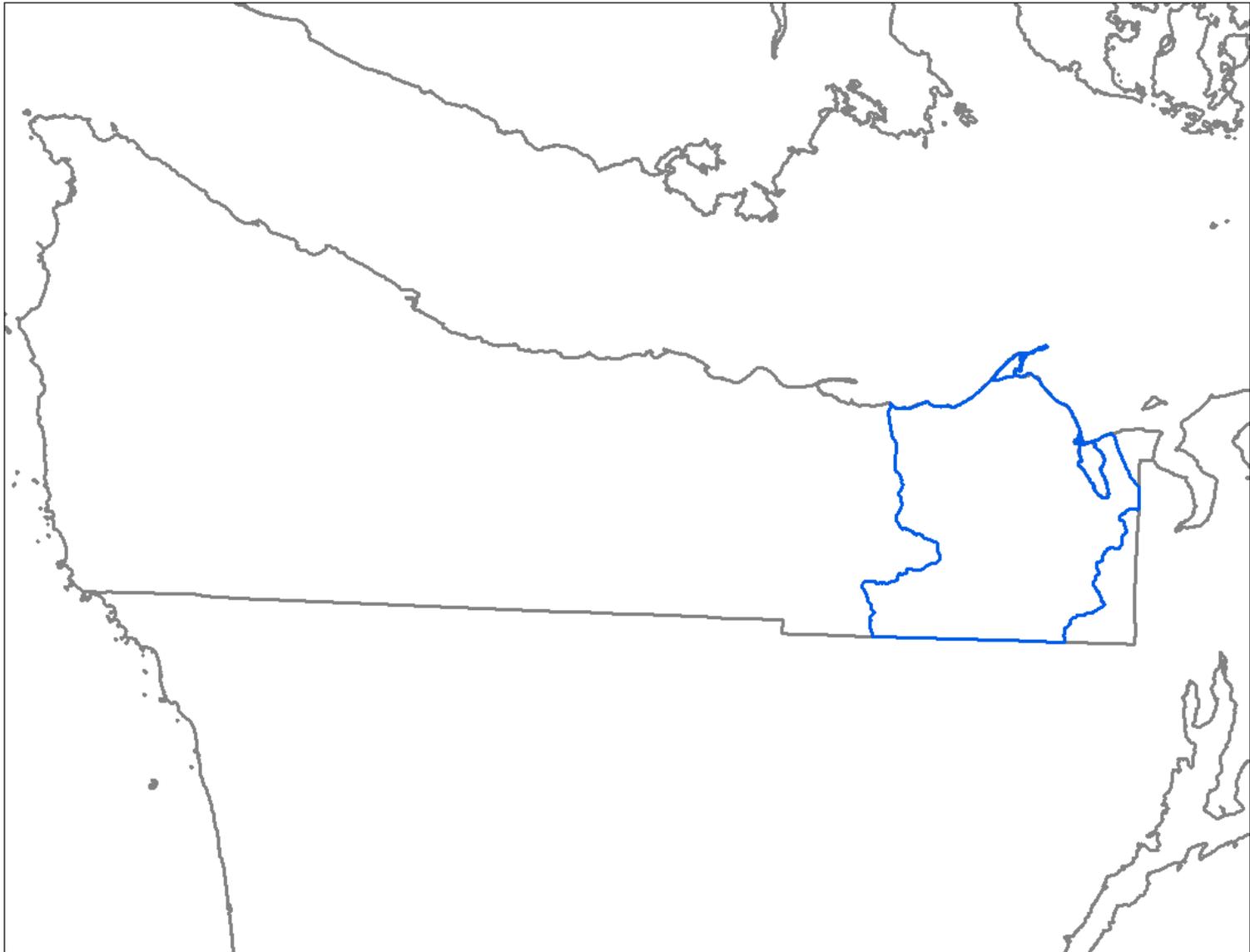




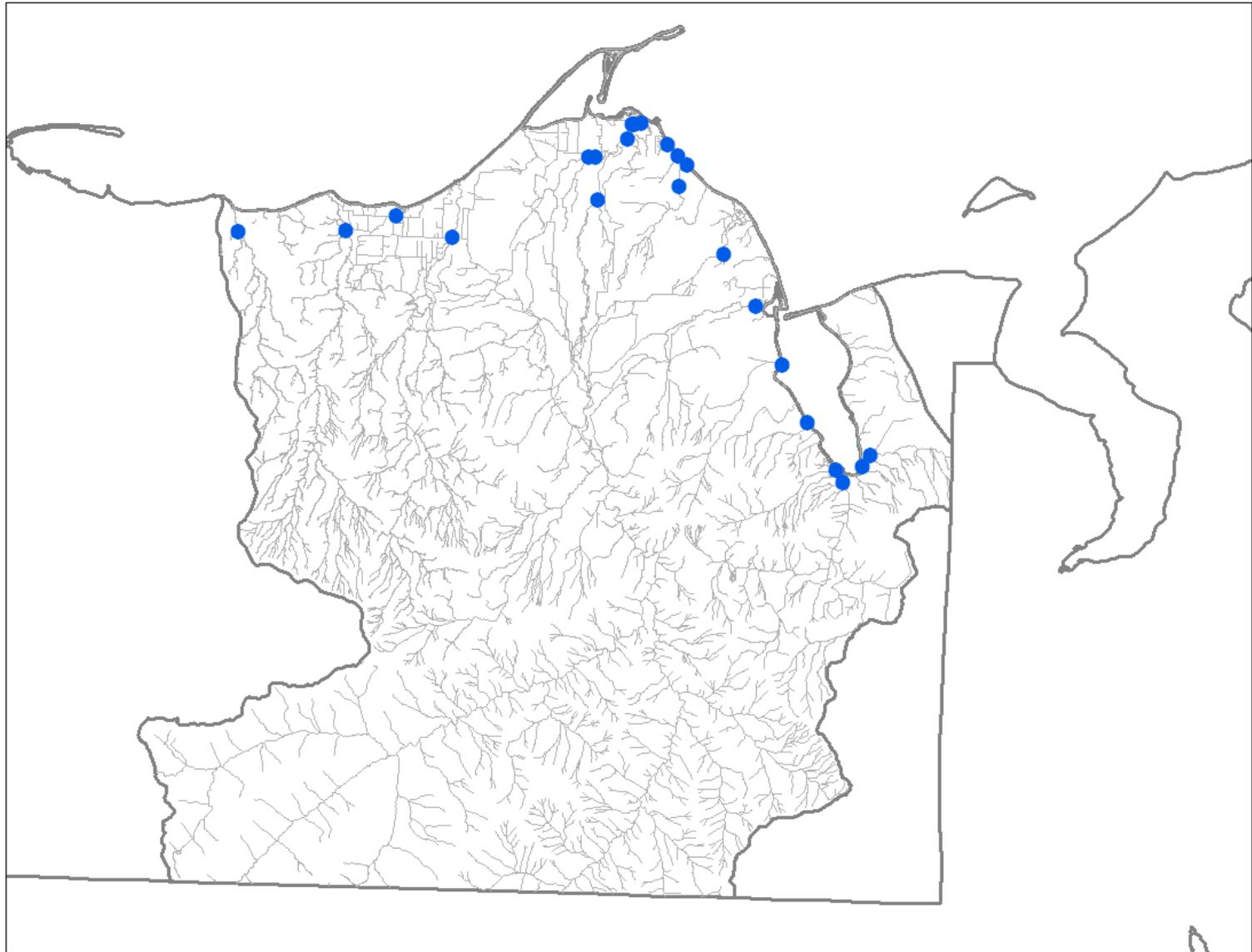
\* Some sampling stations are highlighted with grey box for ease of reading.

Station	Classification	Est. 90th January 2018	Est. 90th January 2019
103	Approved	11.8	16.5
108	Approved	10.3	10.7
109	Approved	10.5	10.1
110	Approved	6.6	7.2
111	Approved	9.7	9.5
112	Approved	6.7	7
113	Approved	19.5	14
114	Approved	14.5	16.3
115	Approved	10.1	13.2
104	Conditionally Approved	24.2	21
105	Conditionally Approved	19.8	14.3
106	Conditionally Approved	22.1	15.1
107	Conditionally Approved	17.8	11.9
197	Conditionally Approved	23	14.2
207	Conditionally Approved	7.4	17.5
198	Prohibited	36.7	29.9
199	Prohibited	25.4	20.7
FC/100 mL N=30	Better > 3 FC	Worse > 3 FC	

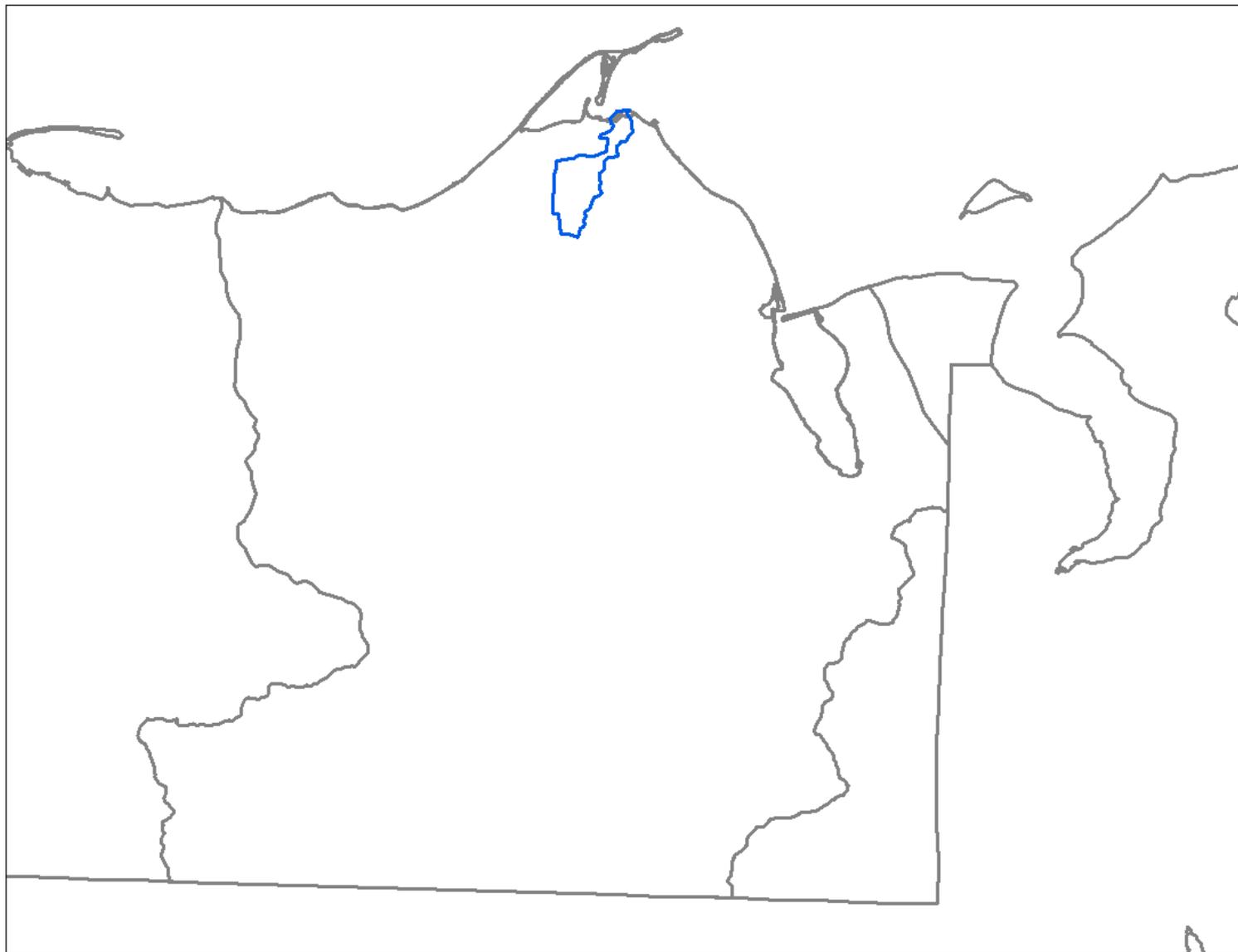
# Clean Water District



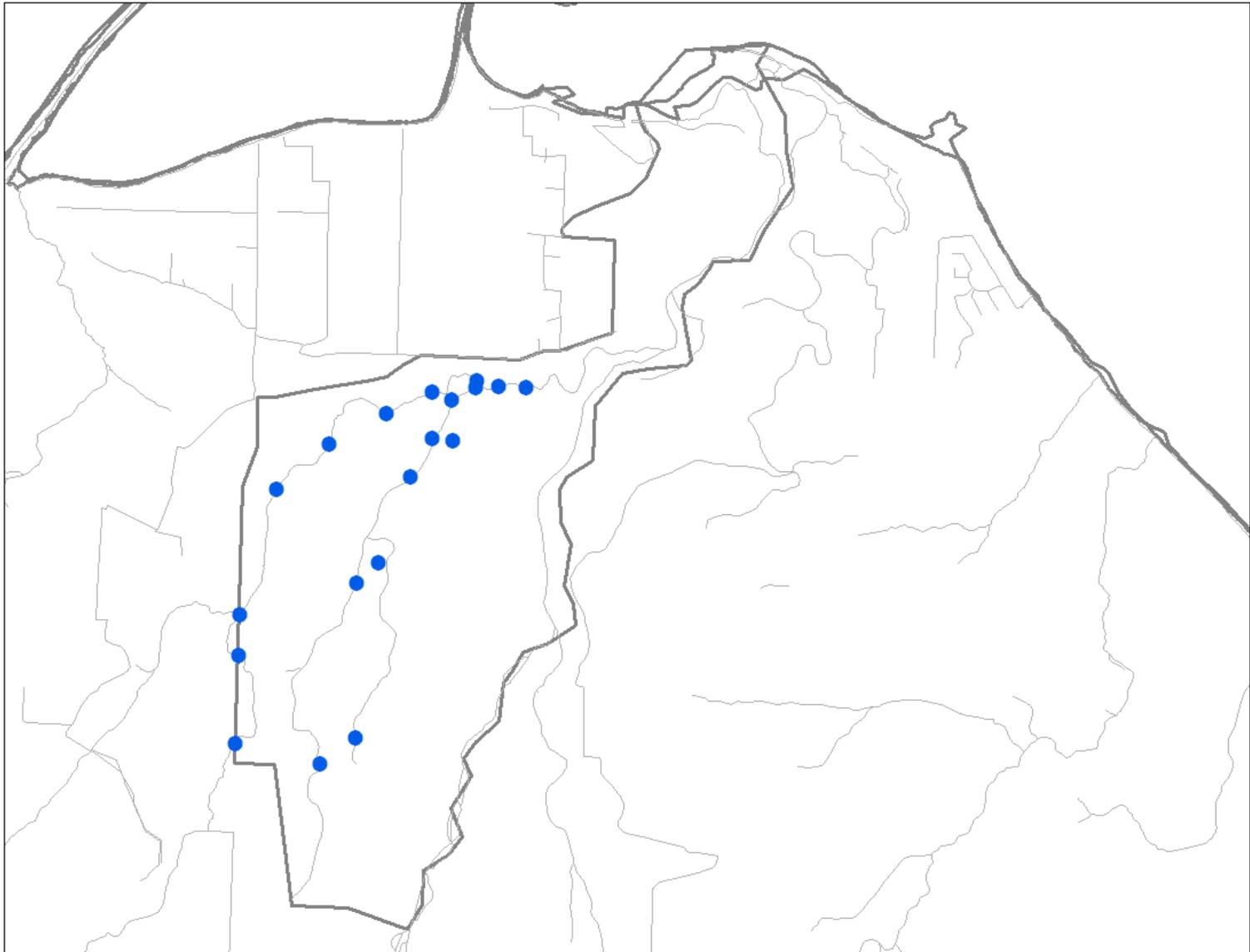
# Baseline Trends Monitoring



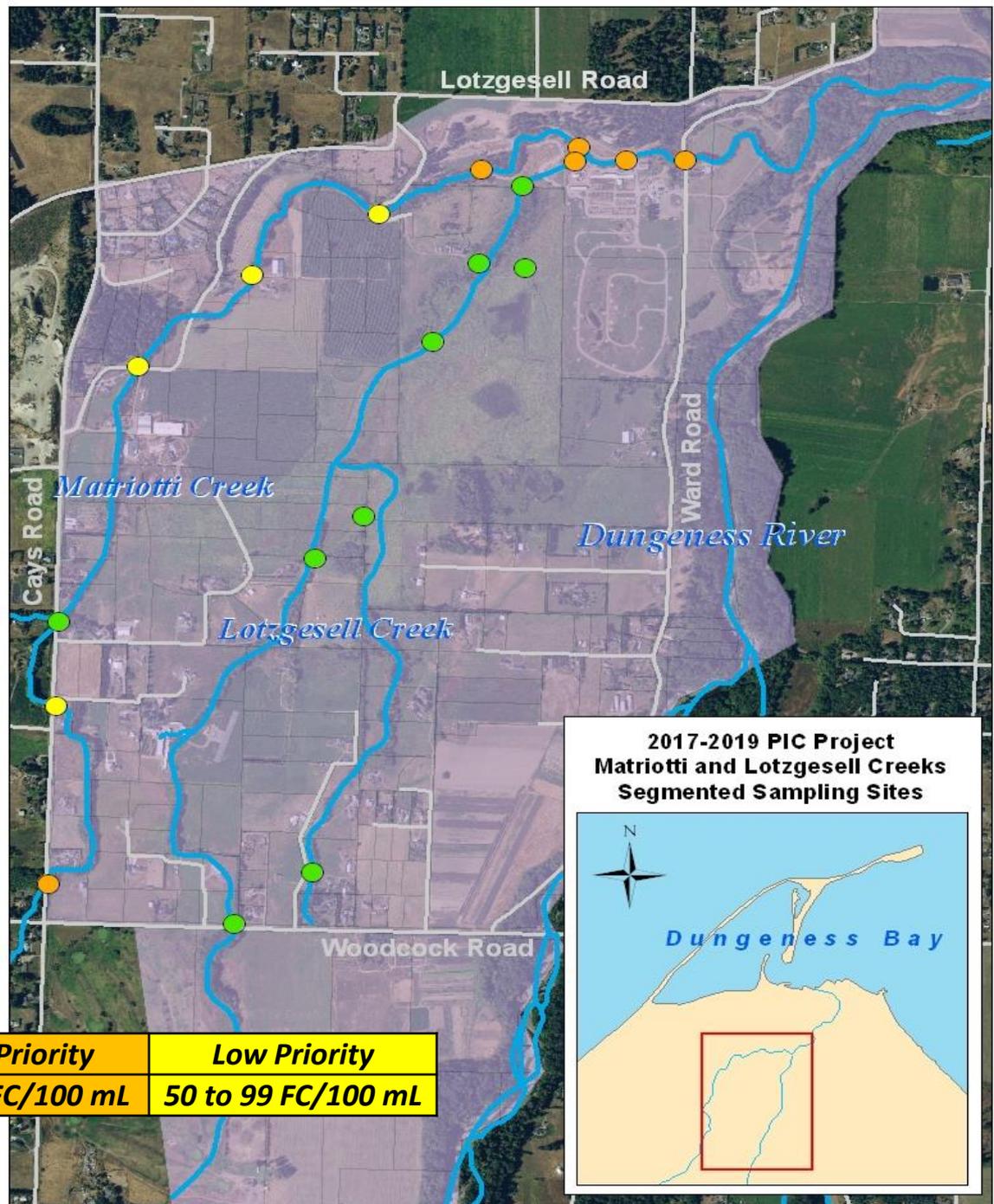
# Trends Data → Focus Area Selection



# Segmented Sampling



**JULY 2018**  
**“Hotspot”**  
**Designation**



High Priority	Medium Priority	Low Priority
> 400 FC/100 mL	100 to 399 FC/100 mL	50 to 99 FC/100 mL

# Site MAT10 Example

$$\sqrt[3]{90 \times 114 \times 184} \approx 124 \text{ CFU/100 ml}$$

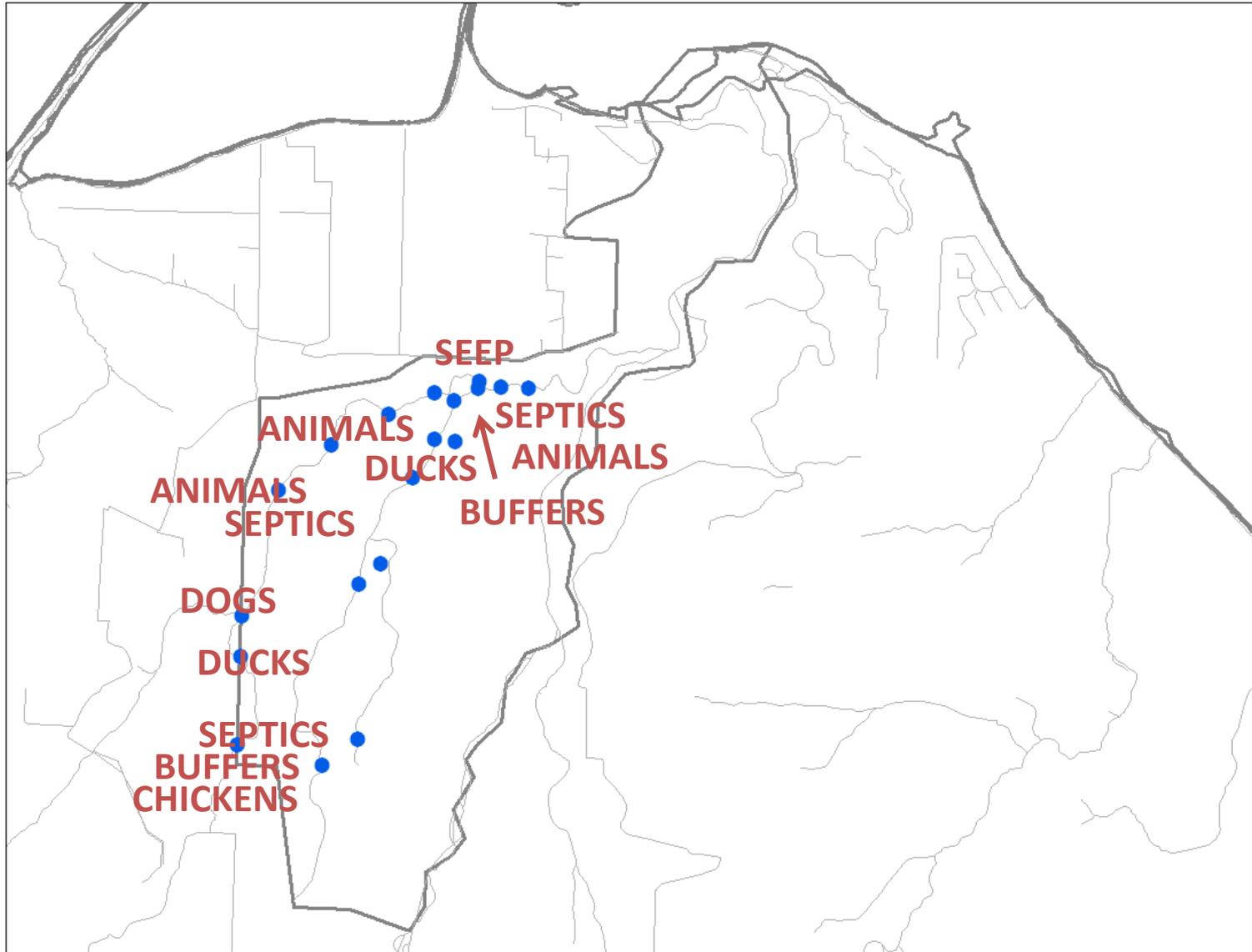
Sample Site	7/5/2018	7/11/2018	7/16/2018	Geometric Mean
LOT1	64	128	126	101
LOT2	26	40	44	36
LOT3	6	NA	NA	NA
LOT4	4	32	20	14
LOT5	8	58	10	17
LOT5a	18	2	16	8
LOT5b	28	NA	NA	NA
LOT6	12	18	8	12
LOT7	26	NA	NA	NA
MAT1	218	118	170	164
MAT2	250	144	146	174
MAT3	508	220	322	330
MAT4	94	156	178	138
MAT5	90	36	166	81
MAT6	26	108	86	62
MAT7	26	56	164	62
MAT8	6	86	110	38
MAT9	30	38	226	64
MAT10	90	114	184	124

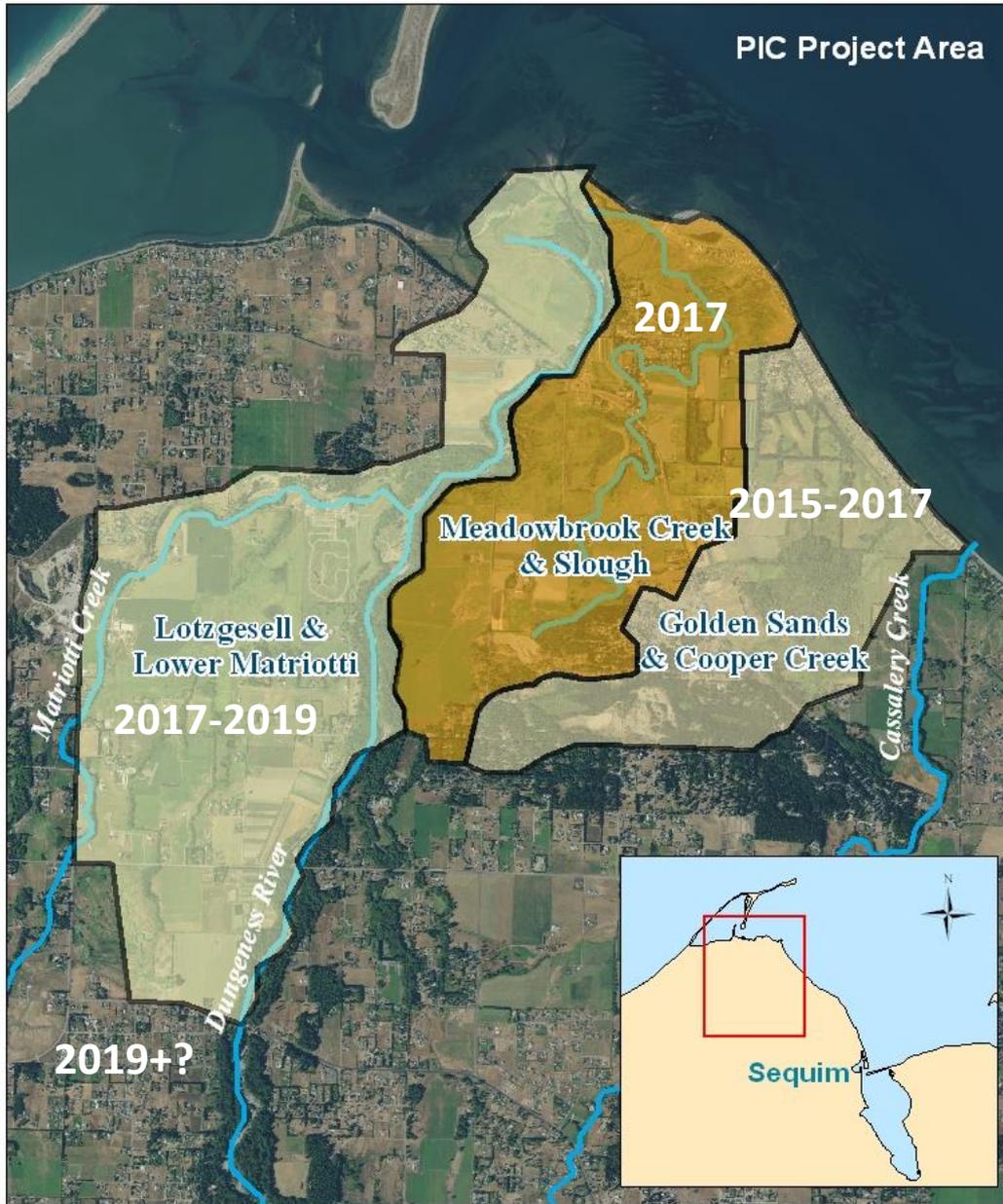


*Fecal coliform counts in colony-forming units (CFU) per 100 mL sample.*



# Findings (So Far...)





## PIC PROJECT

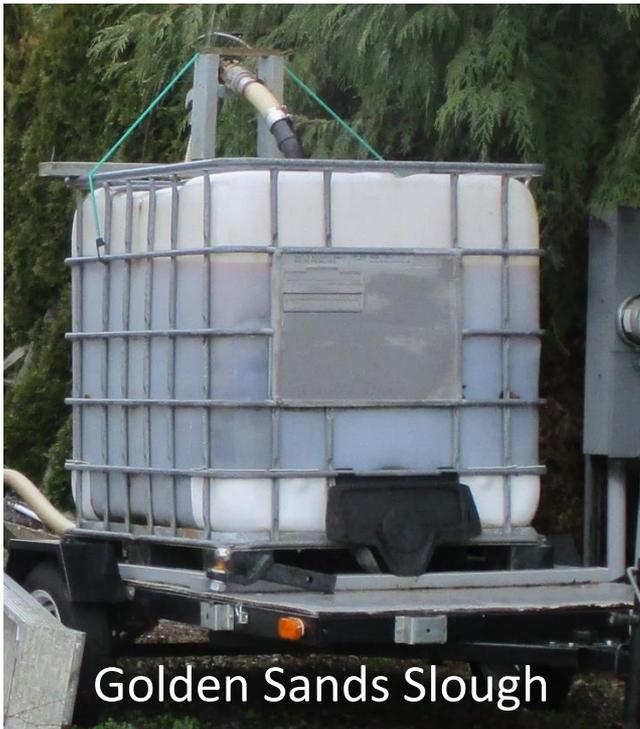
- Past
- Present
- Future...



Meadowbrook Creek



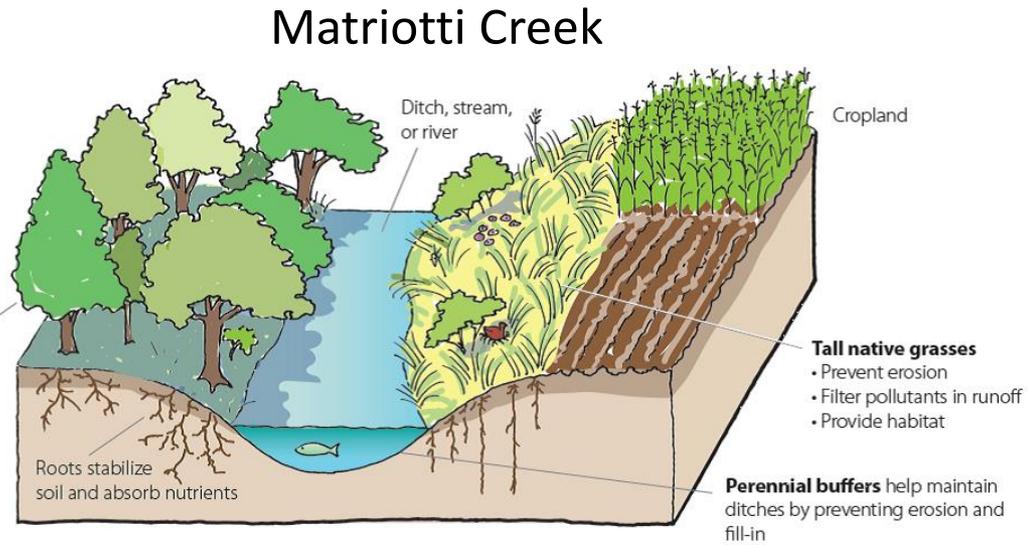
Meadowbrook Slough



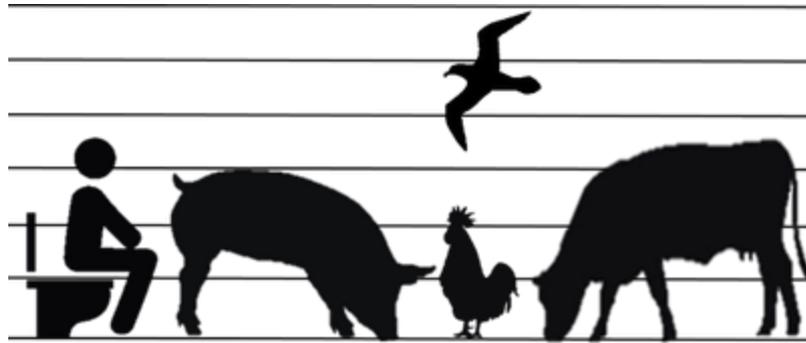
Golden Sands Slough

How buffers protect water

- Trees**
- Hold soil in place
  - Use up nutrients
  - Shade the water
  - Provide habitat



# Future Microbial Source Tracking Study?



Maybe...

**Clallam County has over 16,000 dogs**  
**They produce nearly 3 tons of waste every day**  
**Help keep our water clean!**

- ◆ ***Scoop It***
- ◆ ***Bag It***
- ◆ ***Put It In  
the trash***



Photo: Leslie Wright

**Dog waste contains bacteria, parasites & viruses**  
**Keep your family, pets & the environment safe**

[www.blit.ly/WSUpetwaste](http://www.blit.ly/WSUpetwaste)

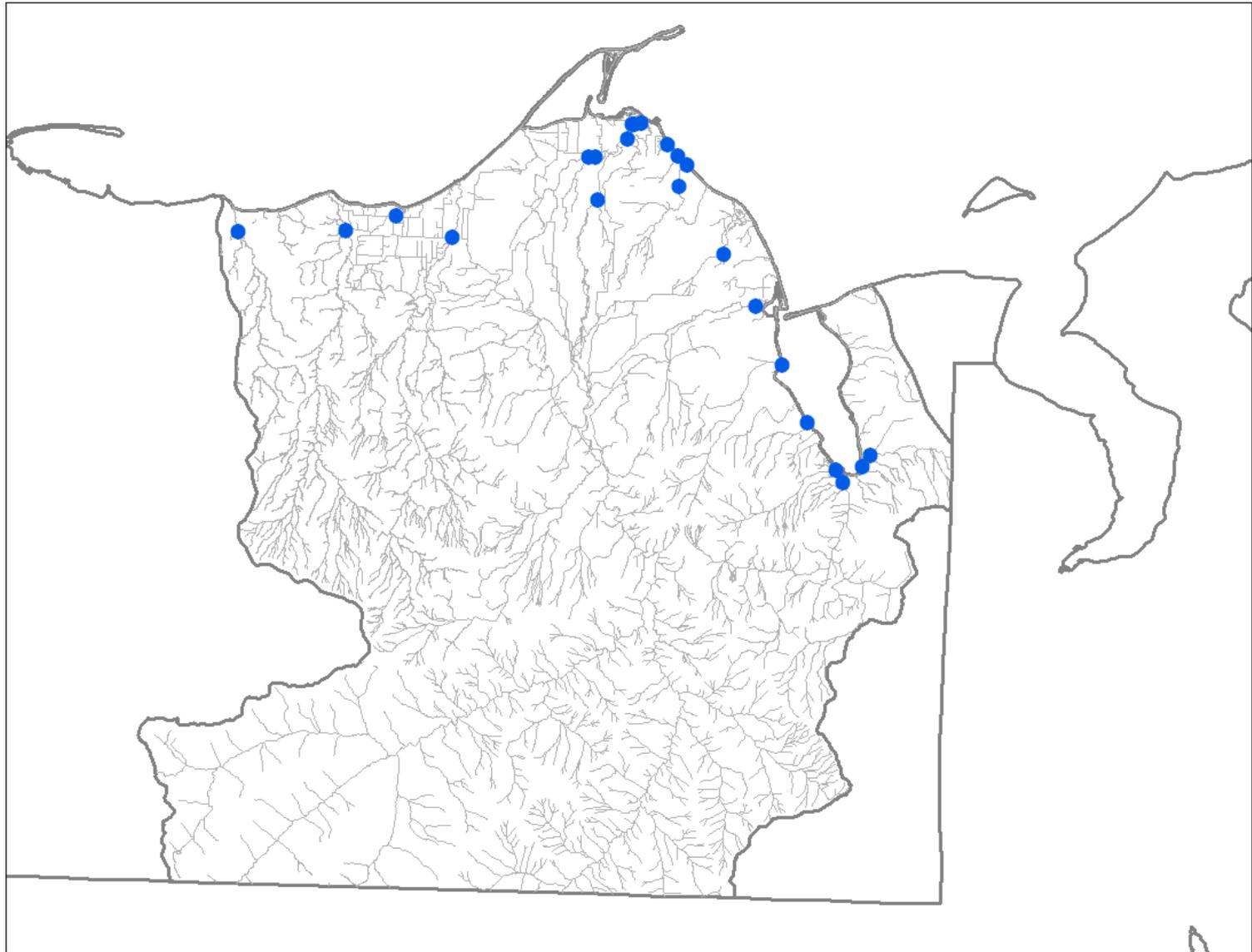


Newsletters, data, maps, and more available at:

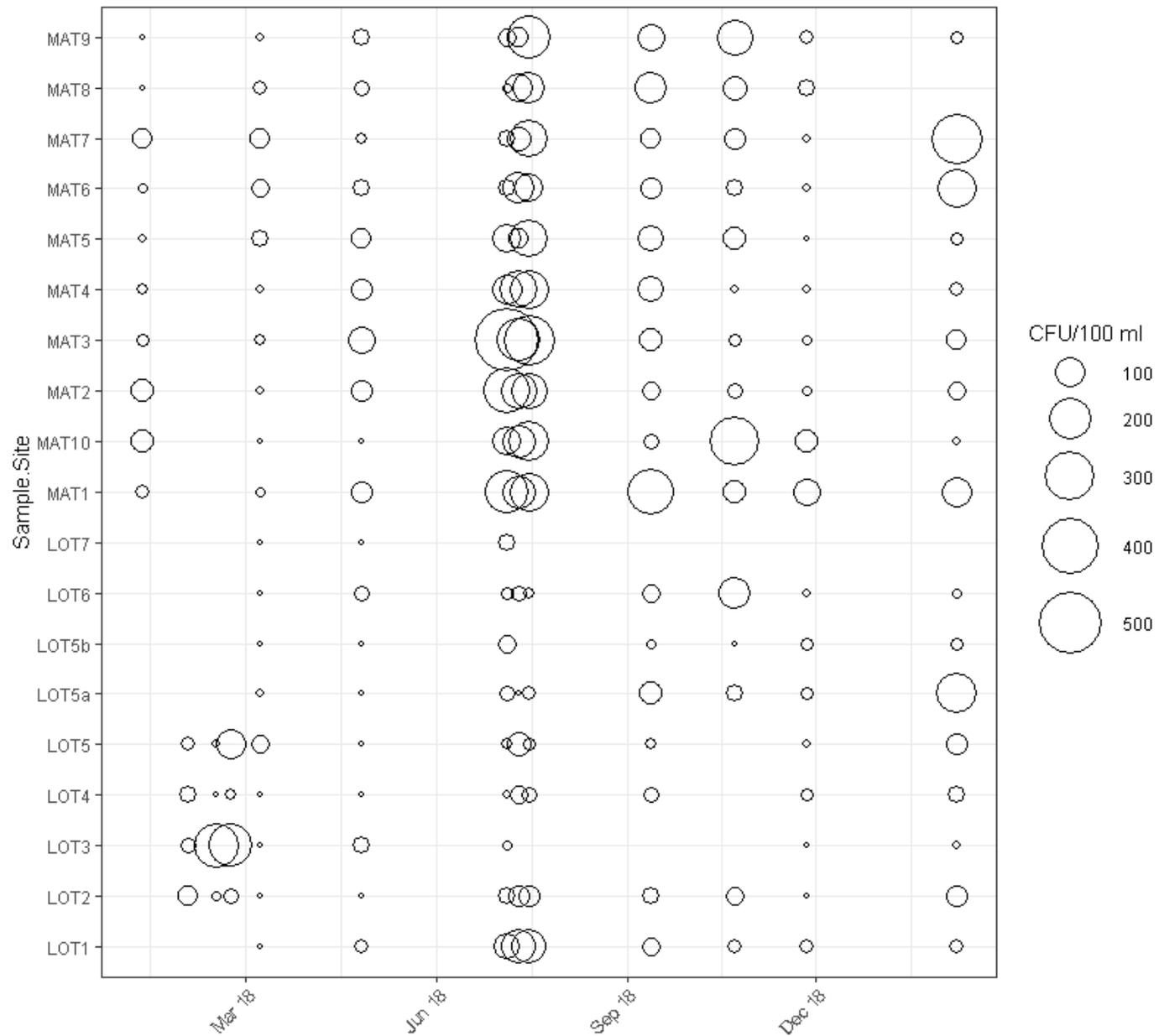
[www.clallam.net/pic](http://www.clallam.net/pic)



# Baseline Trends Monitoring



# Segmented Sampling for Fecal Coliforms (CFU/100 mL)



# Segmented Sampling

