

PIC Open House

Thanks to everybody for coming out to the Pollution Identification and Correction open house at MacCleay Hall (Sequim Prairie Grange) last month. Participants had lots of good questions and showed investment in caring for water resources. Clallam County Environmental Health had the impression that most of those in attendance came from the Matriotti Creek and Lotzgesell Creek areas.

Topics included a PIC overview, timeline and plans for the Matriotti/Lotzgesell project area, water quality results from the Meadowbrook/Golden Sands project area, and pollution correction efforts in the Meadowbrook/Golden Sands area.

We'll likely look forward to holding another open house, probably in summer 2018, when we're further along with investigative work in the Matriotti/Lotzgesell area.

January 2018 Update Topics

- December 2017 Open House
- Matriotti / Lotzgesell Project Area
- Meadowbrook / Golden Sands Project Area
- PIC Trends



JANUARY 2018 UPDATE

Matriotti/Lotzgesell Project Area

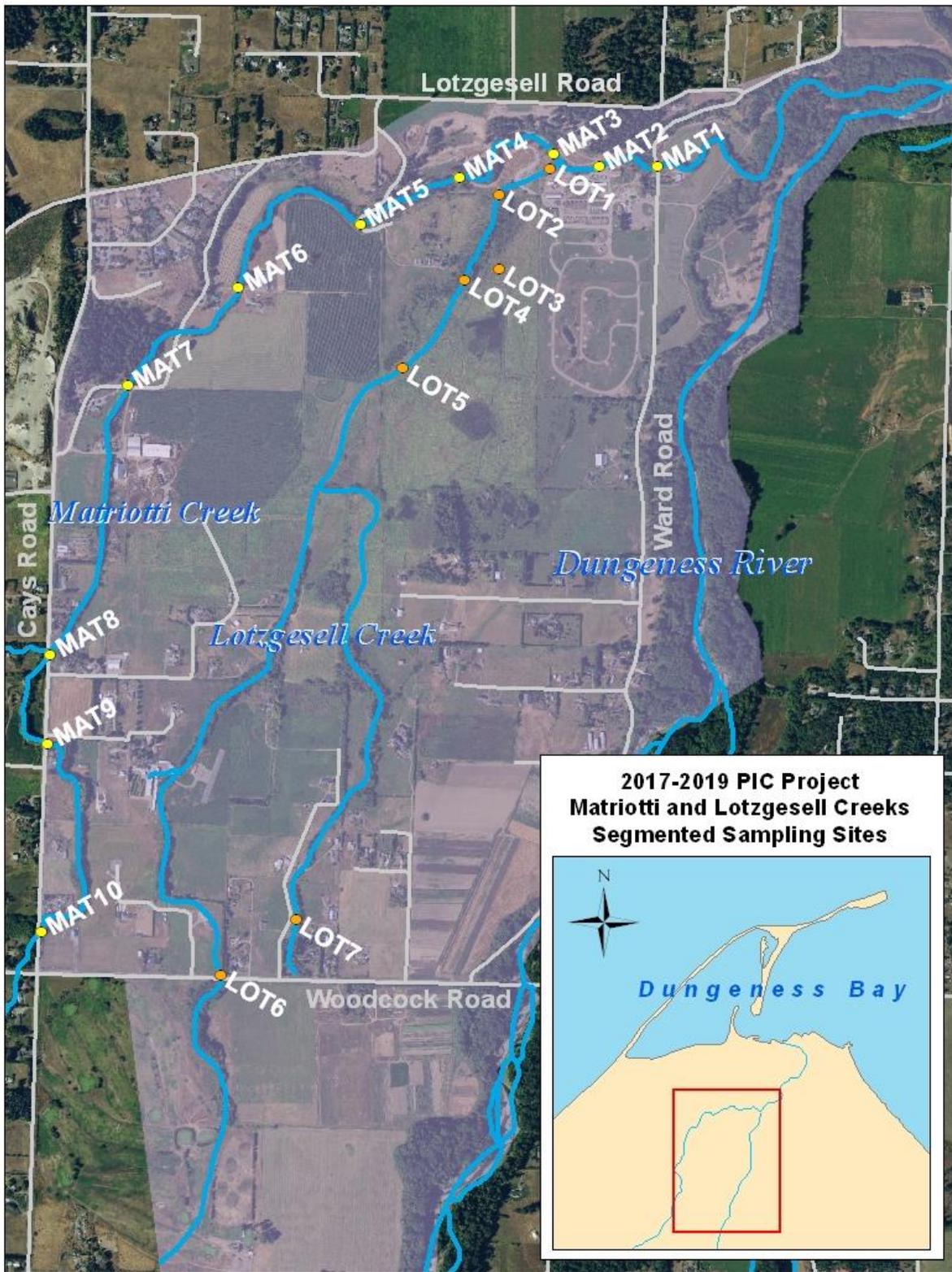
It is official: segmented water quality sampling began in Matriotti and Lotzgesell Creeks on January 10, 2018. Project partners thank property owners for providing access to the streams for the purpose of collecting water quality data (see map of sample sites on page 3).

At each of the sites we logged the location using GPS, took pictures to help us find our way back for future sampling (that's what Andy and Jacob are doing at site LOT 5 in the picture above), and collected water grab samples, temperature, and salinity measurements.

The first batch of results has already come back from the lab. These data are summarized in the table below. Overall, bacteria concentrations at all sites were very low in both streams. Given such low values we don't plan to resample immediately as no sites jump out as potential "hot spots" requiring confirmation.

Sample Site	Date	Time	Temp. (deg. C)	Salinity (ppt)	Fecal Coliform CFU/100 ml
MAT 1	1/10/2018	9:15	6.2	0.1	16
MAT 2	1/10/2018	9:35	6	0.2	46
MAT 3	1/10/2018	10:15	5.4	0.2	12
MAT 4	1/10/2018	10:02	5.3	0.2	8
MAT 5	1/10/2018	11:45	5.3	0.2	4
MAT 6	1/10/2018	12:00	5.5	0.1	6
MAT 7	1/10/2018	12:05	5.7	0.1	38
MAT 8	1/10/2018	12:15	5.7	0.1	2
MAT 9	1/10/2018	12:20	5.6	0.1	<2
MAT 10	1/10/2018	12:25	5.7	0.1	50
LOT 1	1/10/2018	9:42	7	0.2	14
LOT 2	1/10/2018	9:55	7	0.2	8
LOT 3	1/10/2018	11:15	6.3	0.2	10
LOT 4	1/10/2018	11:20	8.1	0.2	<2
LOT 5	1/10/2018	11:30	8.2	0.1	2
LOT 6	1/10/2018	12:35	9.4	0.1	26
LOT 7	1/10/2018	12:40	6.2	0.1	22

Refer to the map on the following page to get an idea of sample site locations. The picture on page 1 was taken at site LOT 5.



Meadowbrook/Golden Sands Project Area

The 2015-2017 PIC Project focused on Meadowbrook (Dungeness) Slough, Meadowbrook Creek, Golden Sands Slough, and 3-Crabs Road. Investigative water quality sampling generally concluded here with some final sampling in 2017. Various pollution correction measures are still needed with some follow-up sampling afterward to evaluate effectiveness. Summaries for individual neighborhoods follow.

Meadowbrook (Dungeness) Slough

Segmented sampling during the 2015-2017 PIC Project showed high levels of fecal coliform bacteria in Meadowbrook Slough.

Tracer dye testing of wastewater systems adjacent to the slough pointed toward a residence with a likely failing septic system. In December 2017 Clallam County Environmental Health confirmed the failure: a non-permitted septic drain field was discharging effluent directly into groundwater that feeds the slough. This problem was partially mitigated in early January 2018—the offending drain pipe was severed and capped—and septic repairs will follow.

A small number of septic systems in the neighborhood still require inspection by a licensed provider to make sure they are functioning properly (and to prevent failure). Clallam County Environmental is using available tools—including administrative penalties (fines)—to cause these inspections to happen.

3-Crabs Road

Residences on 3-Crabs Road rely on septic systems immediately adjacent to sensitive shoreline. Septic inspection compliance efforts continue in this neighborhood to make sure sewage systems are not polluting marine waters. Some in the neighborhood took advantage of inspection rebates offered during the summer.

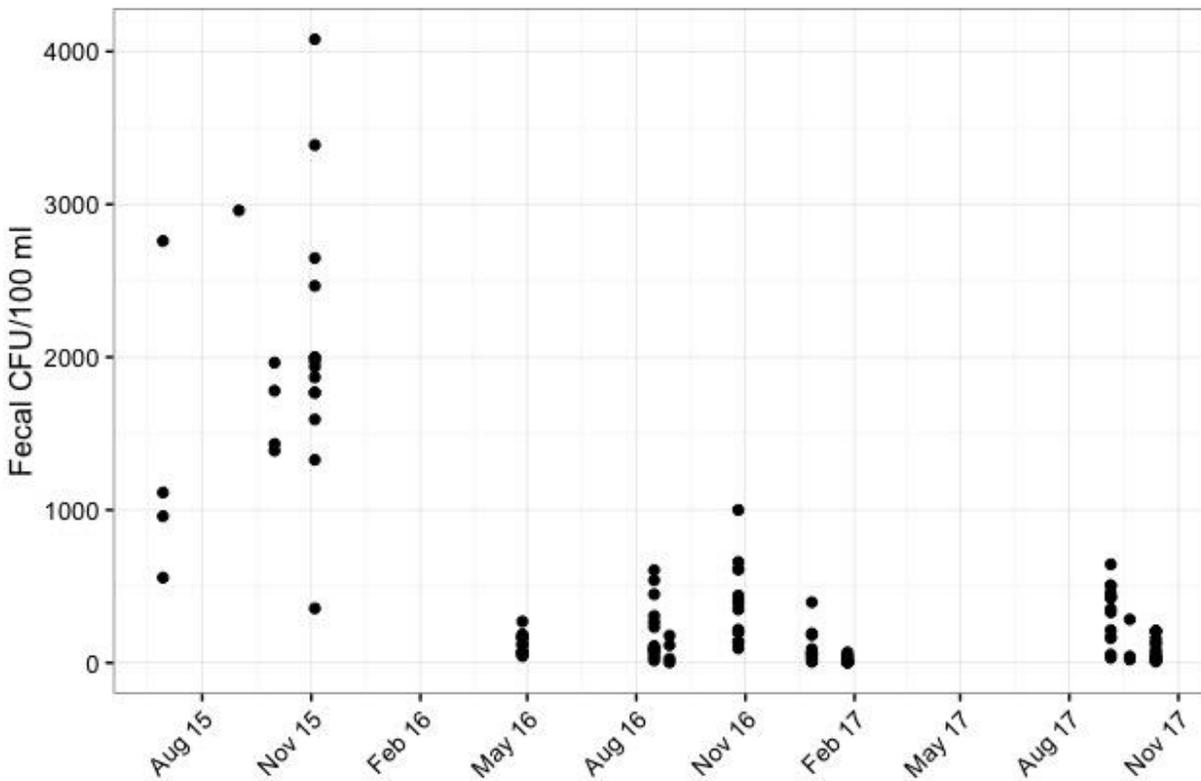
On November 1, 2017 letters went out to 37 property owners (out of approximately 90 on 3-Crabs Road) outlining expectations. By December, 30 property owners remained out of compliance and a new round of letters went out giving an official inspection timeline. Only 21 remained on January 5, 2018 and these received Notices of Violation outlining administrative penalties that will begin to accrue if septic inspections are not scheduled by February 5, 2018.

JANUARY 2018 UPDATE

Golden Sands

Bacteria levels have dropped significantly in Golden Sands Slough since the initial PIC Project began in 2015. Early on, bacterial concentrations on the order of multiple thousands of fecal coliform colony-forming units were measured per 100 ml sample. This has since dropped from multiple thousands to multiple hundreds in 2017—an improvement but still not ideal. See summary graphic below.

Golden Sands Slough Bacteria Concentrations



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Through PIC, various non-conforming sewage systems were upgraded to permitted septic systems. Clallam Conservation District's cost-share program helped some homeowners make needed corrections. Various non-conforming systems still require upgrade but, unfortunately, Washington State failed to pass a capital budget and cost-share funding disappeared leaving multiple projects unfinished.

Hopefully, pollution correction can continue in 2018 with financial support. Remaining sewage-holding tanks around the slough need to be removed and direct discharge of greywater (water from showers, sinks, other similar sources) into the environment needs to stop. The picture at right shows an example of a probable "plume" of greywater in Golden Sands Slough. Elevated bacteria concentrations were measured from within the plume and the reporting party described the plume as "foamy" or "sudsy," like detergent.

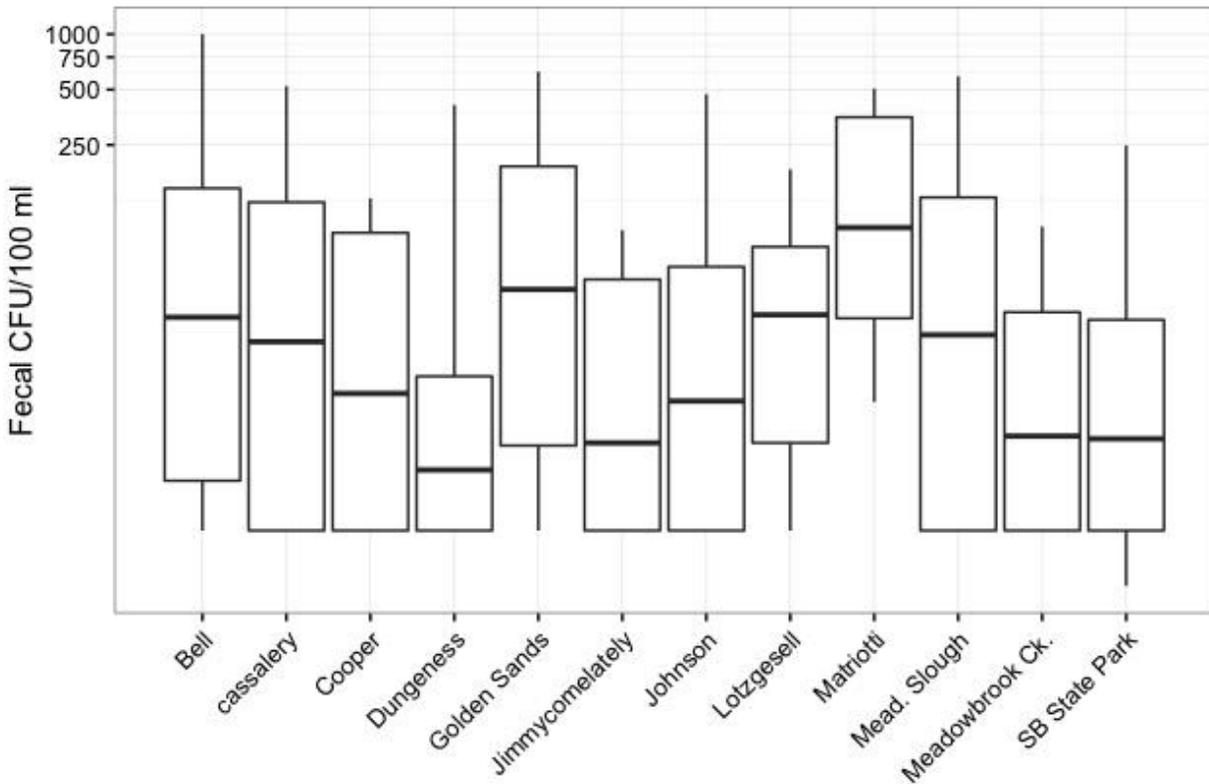


Baseline Trends Monitoring

PIC Baseline Trends Monitoring collects long-term water quality data at the mouths of streams within Clallam County’s Clean Water District (Bagley Creek to Sequim Bay). This information helps project managers decide where to focus PIC segmented sampling and pollution correction efforts.

Clallam County Environmental Health is currently working on a final report for the 2015-2017 PIC Project (stay tuned). Part of this effort involves looking back at Baseline Trends data collected over the duration of the project. The following graphic summarizes bacteria concentrations measured through the Baseline Trends program starting since 2015. PIC Project Partners chose to focus on Matriotti and Lotzgesell Creeks from 2017-2019 given elevated bacterial concentrations relative to other waterways within the district.

Major Clean Water District Streams Bacteria Concentrations



Summary of major Clean Water District streams fecal coliform data collected from May 2015 through December 2017. Box and whisker plots denote 10th percentile, geometric mean, 90th percentile and minimum/maximum values. Note y-axis log scale. (Bell N = 29, Cassalery N = 33, Cooper N = 32, Dungeness N = 32, Golden Sands N = 32, Jimmycomelately N = 29, Johnson N = 29, Lotzgesell N = 32, Matriotti N = 33, Mead. Slough N = 32, Meadowbrook Ck. N = 32, SB State Park N = 20).

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Resources:

- Find all of the latest PIC information at:
clallam.net/HHS/EnvironmentalHealth/PICProject.html
- Find septic resources including free training for DIY inspections at:
clallam.net/septic
- Our “Onsite Program” will be at the North Peninsula Building Association Expo Feb. 17–18, 2018 at Sequim High School:
www.npba.info/building-expo/
- We’ll also be at the KONP Home Show this year. Stop by and say “hi!”
www.cchomeshow.com/