Bellingham Stormwater Data Analysis

Date: 2024-10-08

# Background

Analyze the e. coli bacteria data monitored by Re Sources in Bellingham Bay and described in the following report (link)

Data Overview

A screenshot of a black screen

Description automatically generated

Date Range: 2020-12-03 to 2024-09-17 representing 45 sample month opportunities

Sample sites: ['Bennett Ave', 'C St', 'Squalicum Creek', 'Cedar St', 'Olive St',

'Broadway St', 'Cornwall St', 'Whatcom Creek', 'Padden Creek',

'Little Squalicum Creek', 'Willow St', 'G06-1001', 'G05-1002',

'G11-1001', 'Cedar']

What are G05, G06, and G11 sites?

E.Coli measurements: 458

Duplicate Readings (Same Sample Date and Site): 66

A screenshot of a computer

Description automatically generated

What causes a reading to have a duplicate?

Apply geometric mean to duplicate values

Min Value: 0

Max Value: 20,480 cfu / 100ml

What is valid min/max values

Bacteria threshold = 310 cfu / 100 mL

Basic distribution analysis

A graph with a box and a line

Description automatically generated with medium confidence

Cumprob

A graph with a line going up

Description automatically generated

Long trail > 2nd Quartile

Filter at 1000 cfu/100ml to see distribution shape

A graph with a red line

Description automatically generated

Time Trend by Site ID

A graph with orange lines

Description automatically generated