

Operations and Maintenance of Onsite Sewage Systems: Lake Whatcom

9-18-2024



WHATCOM COUNTY
**HEALTH AND
COMMUNITY
SERVICES**

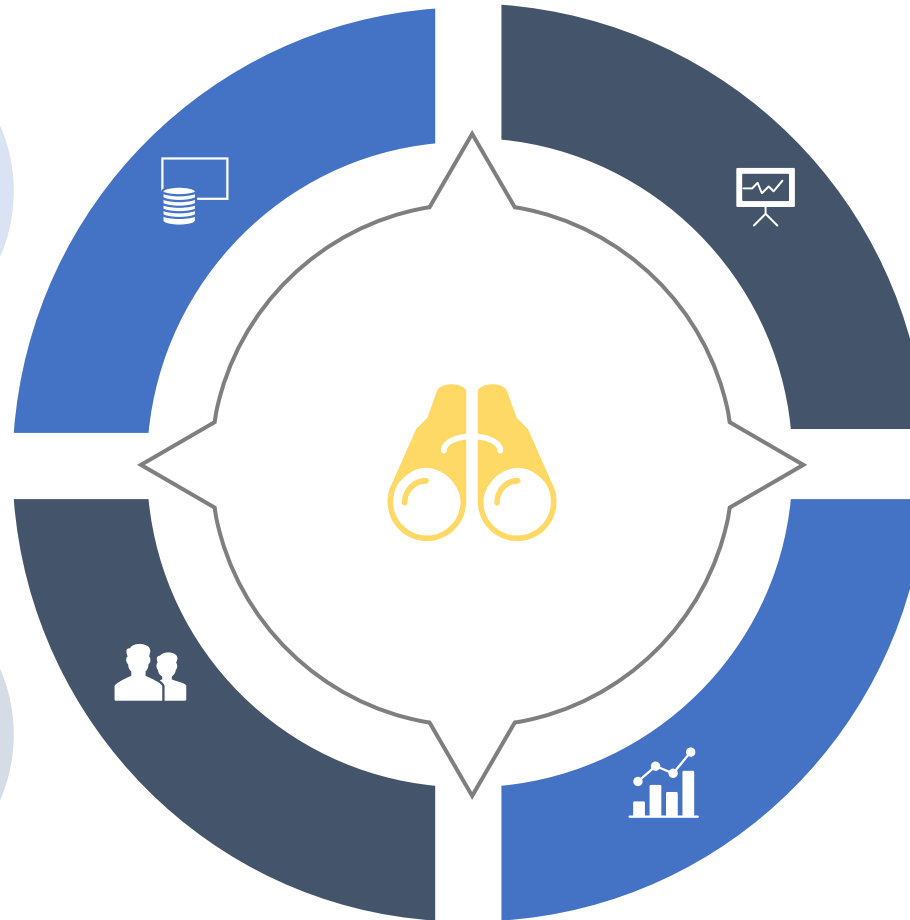


O&M Overview

2024

Compliance: Ensure safety through the entire life cycle of an OSS

Collaboration: Partner for a wholistic impact.



Education: Empower our community to be pro-active through proper treatment & disposal of sewage

Data: Collect the **right** information to:

- Prevent contamination
- Improve processes (efficiency & effectiveness)
- Bolster education
- Drive program improvement
- Fulfill data requests

Guiding Principles

WCC Code 24.05

Local Management Plan

Local Management Plan

Identifies Compliance Priority Areas

- Lake Whatcom Watershed
- Marine Recovery Areas (MRAs):
 - Drayton Harbor Watershed
 - Portage Bay/ Nooksack Watershed
- Food Establishments
- Shoreline Management Areas (SMAs)
- Clarifies how we will complete activities defined in code

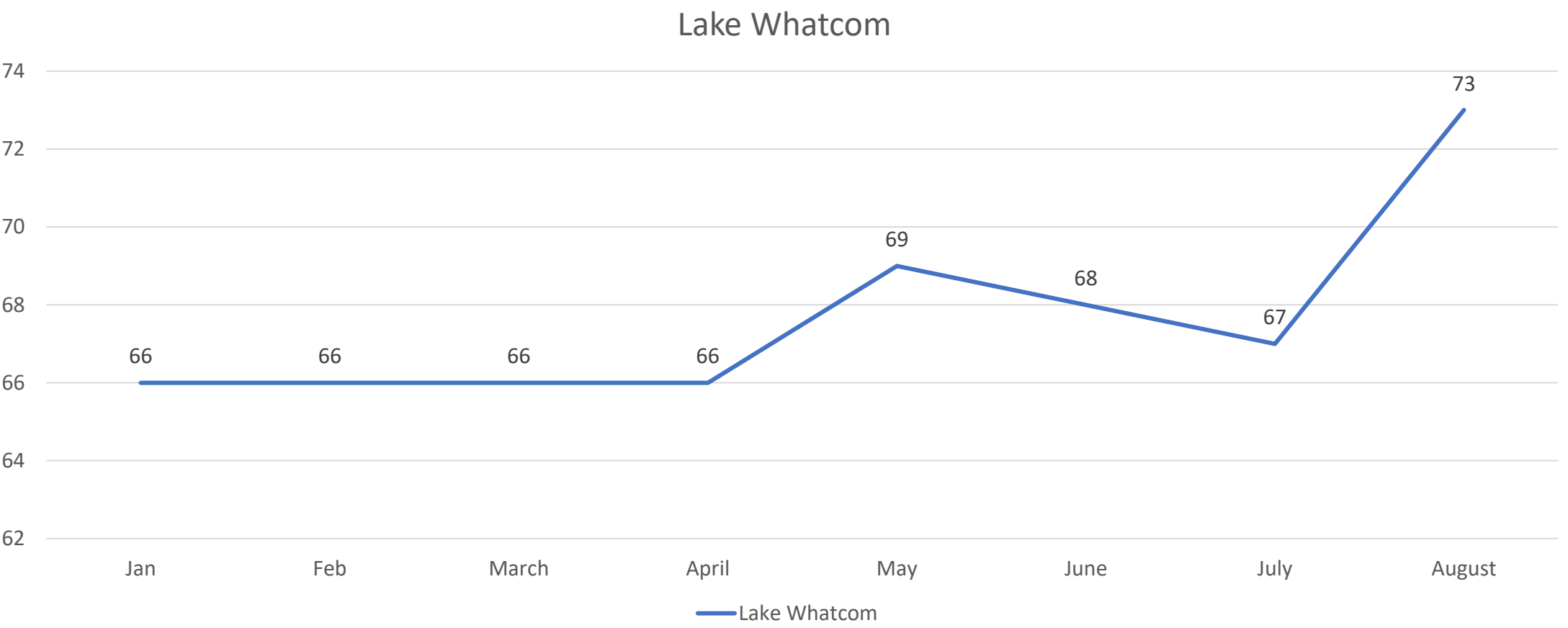
WCC Code 24.05

Identifies Compliance Activities

- Identifies Local Management Plan as required and authoritative
- Frequency schedule of evaluations
(3 years vs 1 year)
- Who can complete evaluations
(Homeowners vs specialist)
- Repair/replacement requirements for failing onsite sewage systems
(Permitted repairs or plumbing solutions)
- Response to community concerns
- Guides permitting requirements

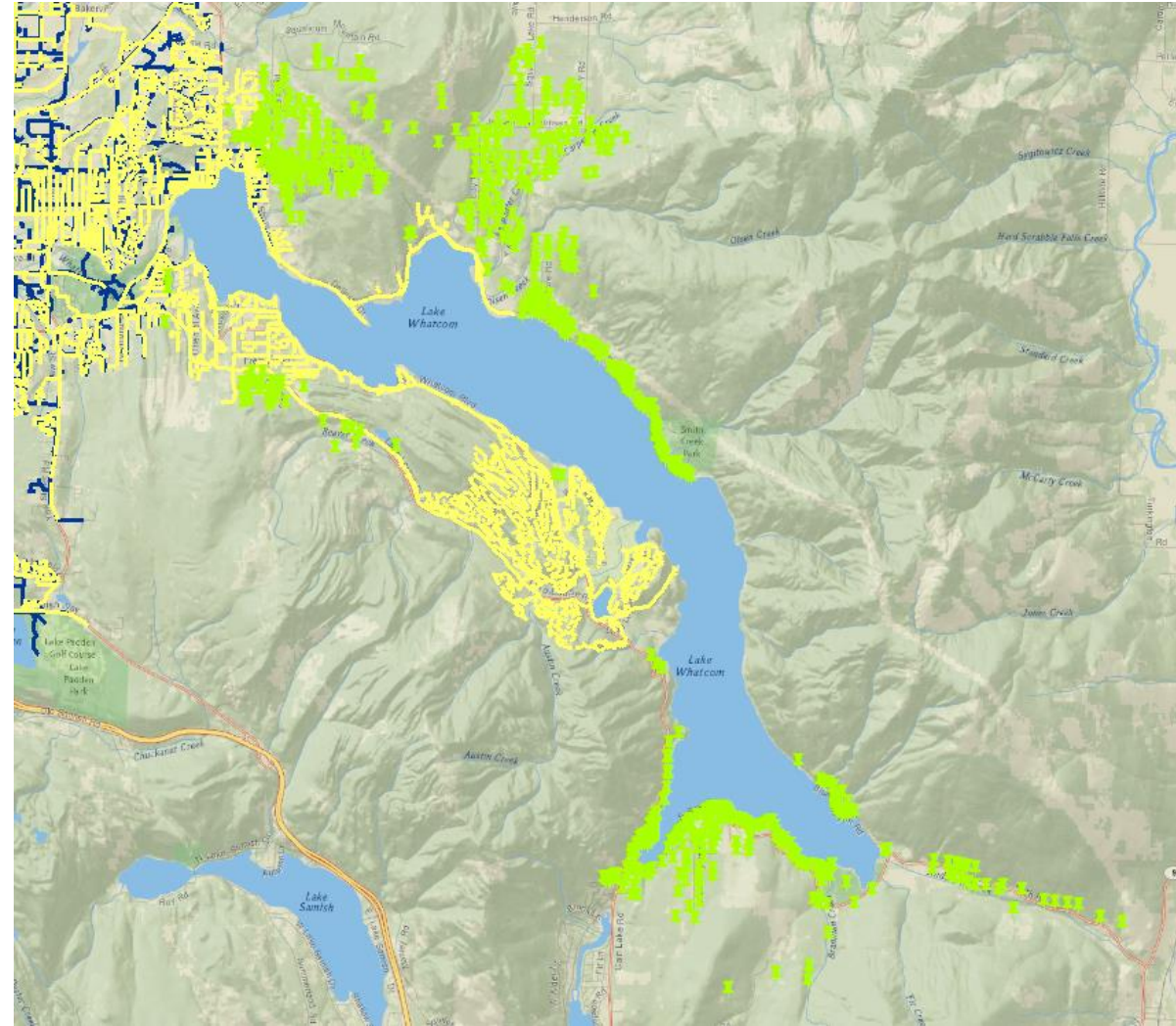
Lake Whatcom Watershed

There has been a +15% increase in compliance for 2023-2024



Lake Whatcom Watershed

Locations of Onsite Sewage Systems in Lake Whatcom



Onsite Sewage System- Electronic Report



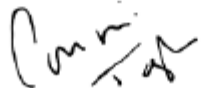
Whatcom County On-site Sewage System (OSS) Report Of System Status

509 Girard St
Bellingham WA 98225
360 778 6000

| Site | | Evaluation | 409686f4 |
|-------------------------------|--------------|---|--------------------------------|
| Site Address | 7650 ZELL RD | Evaluation Date | 8/29/2024 |
| Parcel (first 12 digits) | 400136174479 | OM Specialist | Connie Taylor |
| Property ID | 187889 | Customer Name | Craig Oesch & Christine Kampen |
| OSS SiteID | 17226 | Customer Phone | 000-000-0000 |
| OSS Site Description | | Performed For | Routine Compliance |
| Scanned OSS Doc | Yes | Sewage Source | Single Family |
| OSS Type | Gravity | Bedrooms Served | 2 |
| Proprietary Treatment Product | No | Certified to perform maintenance for this proprietary product | |
| Sand Filter | No | | |

Results

| | |
|--------------------------------|--|
| Op Status On Arrival | Satisfactory |
| Maintenance Performed--Pumping | No |
| Maintenance Performed | |
| Op Status On Completion | Satisfactory |
| Maintenance Needed--Pumping | No |
| Maintenance Needed Item 1 | |
| Maintenance Needed Item 2 | |
| Maintenance Needed Item 3 | |
| General Comments | Second apartment had a filter. Homeowner did not know the filter needs to be pulled every year and rinsed. Levels never rose in the tank during the flow test. Drainfield is ten feet from the outlet pipe, system working great at this time. No corrections. This is not a warranty. |

| | |
|----------------|---|
| O&M Specialist | Connie Taylor |
| |  |

8/29/2024 11:57:26 AM

Septic Tank

| | |
|---|--------------------------------|
| Septic Tank Watertight | Yes |
| Septic Tank Scum Depth at Inlet (Inches) | 0.00 |
| Septic Tank Sludge Depth at Inlet (Inches) | 8.00 |
| Septic Tank Sludge Depth at Outlet (Inches) | 8.00 |
| Septic Tank Scum Depth at Outlet (Inches) | 0.00 |
| Septic Tank Pumping Required | No, pumping not required |
| Septic Tank Inlet baffle condition | Satisfactory |
| Septic Tank Outlet baffle condition | Satisfactory |
| Septic Tank Outlet filter | Satisfactory |
| Outlet filter cleaned | Yes |
| Septic Tank Condition of Risers | Not present |
| Septic Tank Condition of Lid: | Satisfactory |
| Septic Tank Lids Secured | Yes |
| Septic Tank Comments | Lids app 3 inches underground. |

Second Septic Tank? No

Pump Tank No

Second Pump Tank?

Proprietary Treatment Product (PTP) No

Sand Filter (SF) No

Drip (SDS)

Drainfield

| | |
|--|--------------|
| Surface water/downspouts diverted away from drainfield | Yes |
| Improper encroachment (structures/impervious surfaces) | No |
| Structural Integrity and Vegetative Cover Properly Managed | Yes |
| Ponding, Seepage, or Saturation near/around Drainfield | No |
| Describe Ponding, Seepage, Saturation | |
| Monitoring Ports Condition | Satisfactory |
| Is sewage ponding in ports | No |
| Effluent at same level in all basins | |
| Distribution Box (surface access) | N/A |
| Distribution Box Condition | |
| Equal Distribution | |
| Diversion Valve present/functioning | |
| Laterals flushed - Drainfield | |
| Squirt Height At Distal End (Inches) | |
| Orifice Size Used (Inches) | |
| Equal Distribution - Drainfield | |
| Length Of Flow Test (minutes) | 10.00 |
| Approximate Gallons | 120 |

| | |
|---|---------------------------------|
| Level In Septic Tank At Start Of Test | Normal(Invert of outlet baffle) |
| Level At End Of Test | Normal(Invert of outlet baffle) |
| Pump Systems - Float Tether Length (Inches) | |
| Number Of Pump Cycles Run | |
| Gallons Pumped During Test | |
| Evidence Of Dye Or Effluent Surfacing | No |
| Color Of Dye Used | Green |

7650 ZELL RD (400136174479) Site-17226 Eval-409686f4 on 08/29/2024



Photo - Misc: Tank is approximately six feet from the house.
(End of Report - 7650 ZELL RD (400136174479) Site-17226 Eval-409686f4 on 08/29/2024)

Onsite Sewage System- Homeowner Report

Whatcom County Health and Community Services
ON-SITE SEWAGE SYSTEM (OSS)
HOMEOWNER REPORT OF SYSTEM STATUS CHECKLIST

509 Grand Street
Bellingham, WA 98225
Telephone: 360-778-6930

Date of Evaluation: 1-6-24 Tax Parcel # 106832 390419 510200
Site Address: 5849 Sand Rd Email: gretchen/baker.1@yahoo.com
Owner: Chris & Gretchen Baker Phone: 360-599-2957

DATE OF EVALUATION MUST BE WITHIN 30 DAYS OF SUBMITTAL. REPORT WILL NOT BE ACCEPTED IF SUBMITTED MORE THAN 30 DAYS AFTER DATE OF INSPECTION (ORIGINALS ONLY).
PROVIDE PHOTOS OF OPENED SEPTIC TANK AND OUTLET BAFFLE. REPORT WILL NOT BE ACCEPTED IF SUBMITTED WITHOUT PHOTO(S).

OPERATIONAL STATUS: ☒ Satisfactory ☐ Maintenance Needed ☐ Maintenance Performed ☐ Failure

OSS TYPE: ☒ Conventional Gravity ☐ Pressure Distribution ☐ Mound
Check One: ☐ Sand Filter w/ Pressure Dist. ☐ Sand Filter w/ Mound ☐ Non-Pressurized Mound
☐ Pump to Gravity Distribution ☐ Other

PERMIT STATUS: ☒ Permit on File with WCHD ☐ No Permit on File - OSS Drawing Required (Must use 8 1/2" x 11")

SEPTIC TANK - Everyone must complete this section.

- Are your lids watertight and in good condition? ☒ Yes ☐ No
- In your inlet baffle intact and in good condition? ☒ Yes ☐ No
- In your outlet baffle intact and in good condition? ☒ Yes ☐ No
- Did you clean your outlet baffle filter? ☐ Yes ☐ No ☒ N/A
- Is the effluent level at the base of the outlet pipe? ☒ Yes ☐ No (see below)
If not, is it above or below the invert (bottom) of the outlet pipe? ☐ Above ☐ Below
- Does your tank need pumping? ☐ Yes ☒ No

PUMP TANK - Fill out this section if your septic system has a pump and pump tank.

- Are your lids watertight and in good condition? ☐ Yes ☐ No
- Are there solids present in the pump tank? ☐ Yes ☐ No
- Does your pump tank have a control panel? ☐ Yes ☐ No ☒ None
- Does your alarm float work? ☐ Yes ☐ No ☐ N/A
- Does your timer setting still match your approved design? ☐ Yes ☐ No ☐ N/A

DRAINFIELD - Everyone must complete this section.

- If inspection ports are present, is sewage ponding in the ports? ☐ Yes ☐ No ☒ N/A
Is the ponding still present after 2 hours? ☐ Yes ☐ No
- Is there surfacing effluent present over the drainfield? ☐ Yes ☒ No

Have you included the following items:

- Completion of a onsite sewage system homeowner training course: ☒ Yes-Online ☐ Yes-In-person ☐ No
- Photos of septic tank with lids and outlet baffle: ☒
- OSS site sketch (if no OSS permit on file): ☐

NOTES - If maintenance was needed or performed, please describe: (please attach more pages if necessary)

I certify that I have performed the required OSS evaluation on the above referenced property. The information submitted in this report is true and correct at the time this OSS was evaluated. I may be contacted by WCHD, and I will allow WCHD staff access to my system for inspection, based upon WCC 24.05.149 (1) "The health officer shall have the right of entry to inspect any sewage disposal system." If at any time my property is listed for sale, an OSS evaluation must be completed and filed with WCHD by a licensed Operation and Maintenance Specialist.

Gretchen Baker Gretchen Baker 1-7-24
Signature Print Date
Official Use Only
Rev'd By: SH
Rev'd Date: 1-7-24

862870

Inlet scum 11"
Inlet sludge 4 1/2"
Outlet scum 1"
Outlet sludge 3"
Operational depth 48"

$$11 + 4\frac{1}{2} + 1 + 3 = 19.5$$

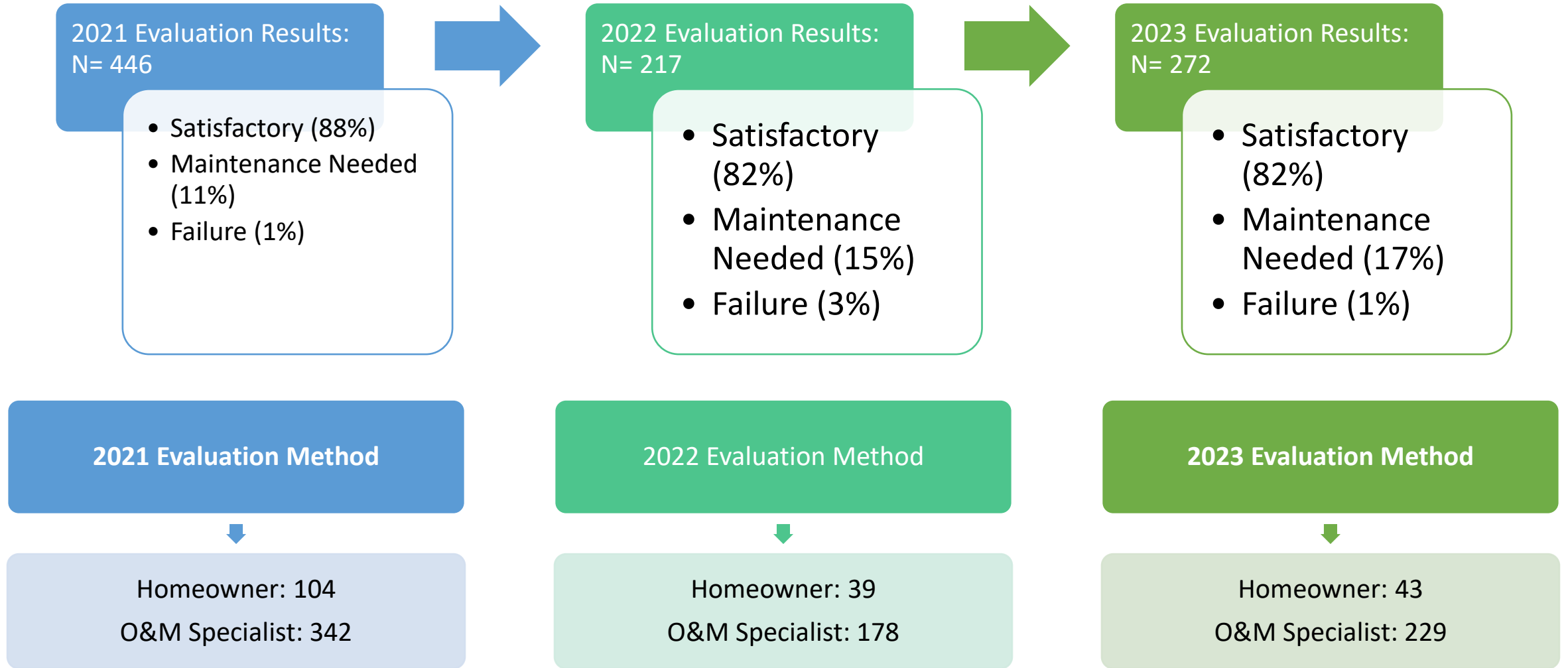
$$19.5 \div 2 = 9.75"$$

$$9.75 \div 48 = 20\%$$

It is not time to pump this septic tank.



Lake Whatcom Watershed



Lake Whatcom

2024/2025 Response

Northshore Road OSS Studies

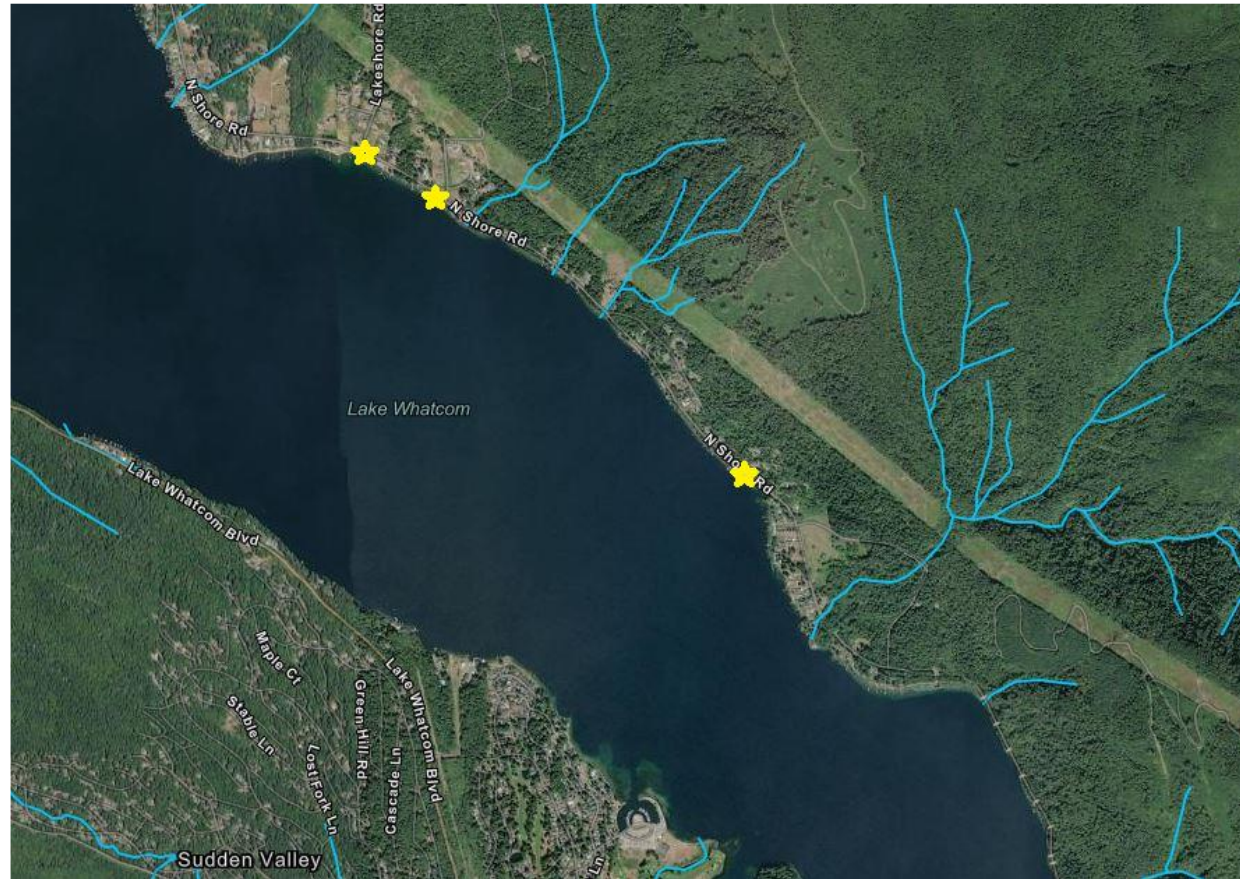
- **2016**

- Focus on Northshore Drive Area
- Fecal Bacteria, Nutrients, Optical Brighteners, DNA Biomarkers
 - Quarter of the samples exceeded single sample threshold for fecal coliform
 - Optical brighteners and DNA biomarkers identified
- Follow Up OSS Surveys Conducted
 - 97 OSS in Focus Area
 - 68 OSS Inspected
 - 3 Failures Found and Repaired

- **2020**

- Included Shoreline Areas with OSS and Sewer
- Fecal Bacteria, Nutrients, Optical Brighteners, DNA Biomarkers
- Areas of Concern Identified
- Human biomarkers identified in 3 undeveloped samples, 10 OSS samples, and 2-sewered samples)
- Highest levels of human biomarkers identified at 3 OSS sites

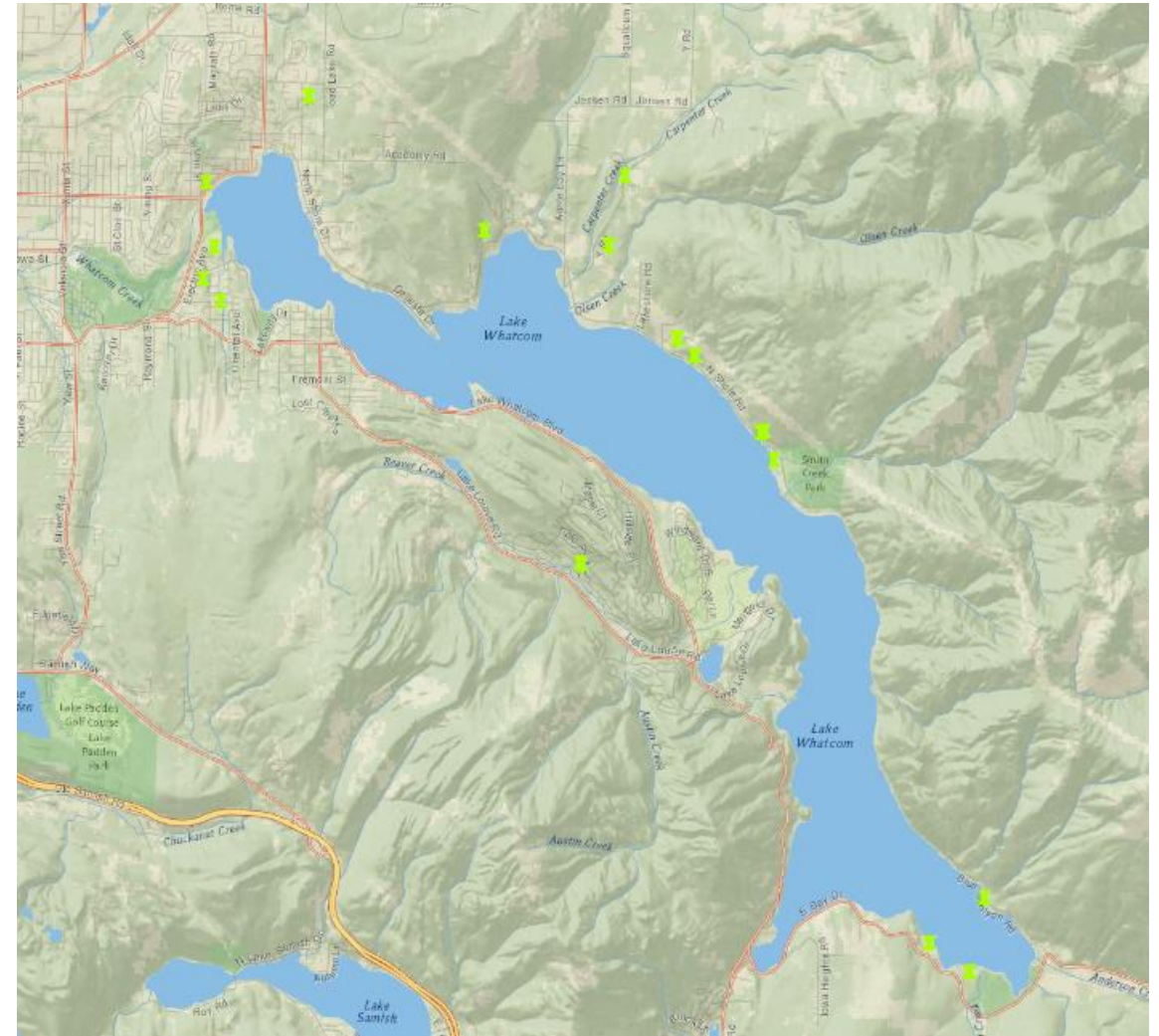
Northshore Road OSS Studies (cont.)



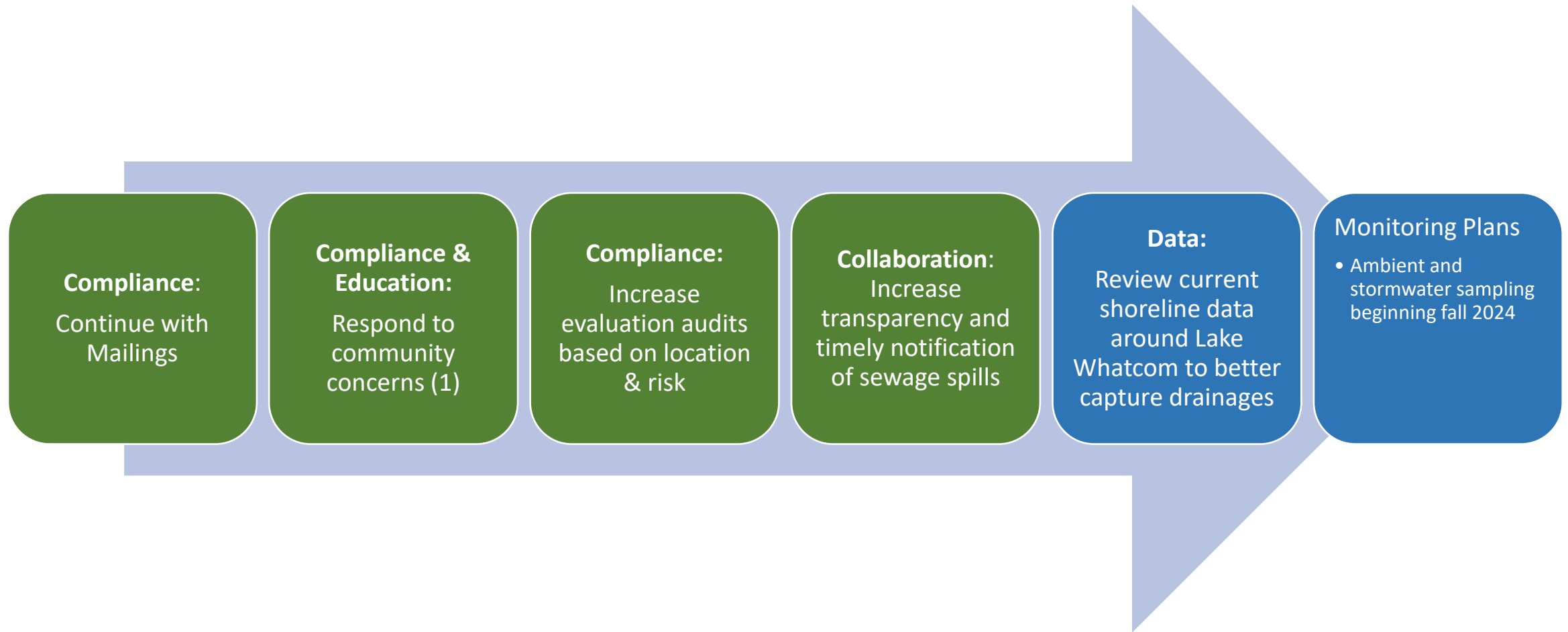
Lake Whatcom Community Concerns

2021-2023:

- 3 Side Sewer Repairs
- 3 OSS Repairs
- 6 OSS Replaced
- 2 Illicit Discharge (RV)
- 2 False Positive



Planned Programmatic Response 2024/2025



Increase Evaluation Audits Based on Risk & Location

Whatcom County Health and Community Services On-Site Sewage System (OSS) Operation and Maintenance (O&M) Program Homeowner Report of System Status (HROSS) Review

Date of Review: _____

EHS: _____

Site Address: _____

Tax Parcel#: _____

| | | |
|---|------------------------------|--|
| • OSS located in a sensitive area? (Lake Whatcom Watershed, SMA, Drayton Harbor)..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Surface water/ditch/drainage feature nearby..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| a. Which kind?..... | | |
| • First Evaluation?..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • OSS type marked correctly..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| a. OSS type is gravity..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. OSS types in surrounding area (if gravity)..... | | |
| • Permit status marked correctly..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Unpermitted OSS..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Site sketch provided as required..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> N/A |
| • Septic tank section (marked correctly)..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Pumping needed per owner..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| a. Date tank was last pumped..... | | |
| • Pump tank section (marked correctly)..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> N/A |
| • Drainfield section (marked correctly)..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Photos show tank lids opened and outlet baffle..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Effluent level appears normal in photo..... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Audit Inspection Notes:

- How did you determine if your tank needed pumping? _____

- Evidence that septic tank and/or pump tank were recently accessed..... ☐ Yes ☐ No

- Dye test performed..... ☐ Yes ☐ No

- Effluent level upon arrival.....

- Length of dye test.....

- Approximate gallons.....

- Evidence of OSS Failure..... ☐ Yes ☐ No

- Comments/other observations: _____

HEM/NO&M/HROSS O&M/HROSS Review Checklist
Updated 11/9/2017

HROSS AUDIT GOAL: Verify operational status & that evaluation was completed.

Homeowner Audit Form & HROSS Policy

- OSS located in sensitive area?
- Surface Water/ditch/drainage feature nearby?
- First Evaluation?

*Since March there have been 27 homeowner evaluations; O&M has evaluated 6 homeowner evaluations based on location and risk. All have been found to be accessed/inspected; one status was changed to maintenance needed due to roots between the tank top & riser.