Hood Canal Coordinating Council

Jefferson, Kitsap & Mason Counties; Port Gamble S'Klallam & Skokomish Tribes

Hood Canal Regional Pollution Identification & Correction Program

Field Implementation Guide

December, 2017

Developed from the Hood Canal Regional PIC Program's Guidance Document

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Hood Canal Regional Pollution Identification and Corrections (HCRPIC) Program partners have contracted with HCCC and National Estuary Program to follow the guidelines outlined in this field guide.

Field Preparation & Safety

Personal safety in the field is extremely important. The key to a safe field inspection is preparation including: obtaining required training, familiarity with related policies and procedures, confirming or acquiring additional information, and gathering necessary supplies, equipment, and protective clothing. Notify fellow staff where you will be working in the field and the approximate time you plan to return. After completing field work, notify fellow staff that you have completed your field work and are returning home. Always park your vehicle in a manner that does not interfere with the movement of other vehicles but provides you with the opportunity for a quick exit (if needed).

Supplies and Equipment

Field staff should carry safety equipment and supplies (see Appendix A) including:

- Identification
- Cell phone/emergency contact phone numbers
- Appropriate personal protective equipment including field boots and disposable waterproof gloves
- Maps, project information, field work information
- Field notebook, pen and/or pencil, permanent marker
- Sampling wand (Fig. 1), bottles, cooler(s) and ice packs
- Digital camera and handheld GPS
- Dog treats
- Pepper spray canister (requires training)
- First Aid supplies and hand sanitizer

Figure 1: Sampling wand, made from an extendable paint pole with a cut Nalgene bottle attached at the end with electrical tape. Holds a 100ml sample bottle.

Dress appropriately for the weather. Wear clothes that make it easy for you to move fast, and are suitable for brambles, mud, and obstacles. For stream monitoring and shoreline surveys it is highly recommended you wear boots with good ankle support as the topography may be somewhat uneven. Good traction and water proof material is also highly suggested.

Access and Consent

Make sure that you know your jurisdiction's access and consent policy for private property. Appendix B contains access and consent guidance that Kitsap Health uses to make sure that all work is conducted from areas that are legally accessible so that results can be used in a court of law if necessary.

Project Area Evaluation

Gather and evaluate existing information about the project area:

- Project area details and history (area maps, public access areas, soil conditions, sewer maps, stormwater maps, onsite sewage system (OSS) GIS maps, areas of concern, and WSDOH shellfish reports)
- Water quality data

Initial Project Area Visit

- Identify surface waters, such as streams, marine water, and public access areas
- Confirm stormwater drainage patterns (roadside ditches, collection systems, and pipe discharges)
- Identify water quality problem areas based on water quality data and determine drainage segments that need investigation
- Look for and document potential fecal pollution sources in the area (OSS, pet and livestock waste, food and grease waste);

Monitoring & Investigating Fecal Pollution Sources

Water Quality Standards and Criteria

The Washington State Department of Ecology establishes surface water quality standards in Chapter 173-201A Washington Administrative Code (WAC). Water quality monitoring results are compared to the current Washington State water quality standards as shown in Table 1. Surface waters in Washington State are designated in the WAC as either Primary or Extraordinary Primary waters.

Monitoring Objectives

- Conduct water quality monitoring, data management, and reporting, pursuant to Hood Canal Regional Guidance Document and approved Quality Assurance Project Plan
- Collect monitoring data to identify and prioritize nonpoint pollution problem areas along the Hood Canal shoreline for pollution source investigation and correction efforts
- Implement an ambient monitoring program to measure, assess, and characterize priority Hood Canal fresh water quality trends
- Implement shoreline surveys, hotspot confirmation and investigation, to identify and correct fecal pollution sources
- Assess surface water quality results based on applicable State surface quality standards before and after fecal pollution source correction

Ambient Fresh Water Monitoring

The Hood Canal Salmon Enhancement Group will conduct ambient fresh water monitoring in high priority Hood Canal streams. They will use a stratified random sampling strategy to determine current conditions and track long-term water quality trends.

Table 1. Surface Water Quality Standards and Related Criteria

Parameter	Freshwater Standard		Marine Water Standard	
	Extraordinary Primary	Primary	Extraordinary Primary	Primary
Fecal Coliform Bacteria (FC)	**Part 1**: ≤50 FC/100 mL (geomean) **Part 2**: Not more than 10% of all samples obtained for calculating a geomean >100 FC/100 mL	**Part 1**: ≤100 FC/100 mL (geomean) **Part 2**: Not more than 10% of all samples obtained for calculating a geomean >200 FC/100 mL	**Part 1**: ≤14 FC/100 mL (geomean) **Part 2**: Not more than 10% of all samples obtained for calculating a geomean >43 FC/100 mL	**Part 1**: ≤14 FC/100 mL (geomean) **Part 2:** Not more than 10% of all samples obtained for calculating a geomean >43 FC/100 mL
E. Coli Bacteria	≤126 organisms/100 mL (geomean)[1]		None	None
Dissolved Oxygen	> 9.5 mg/L	> 8.0 mg/L	> 7.0 mg/L	> 6.0 mg/L
pH	6.5 – 8.5 units	6.5 – 8.5 units	7.0 – 8.5 units	7.0 – 8.5 units
Temp	16.0° C[2]	18.0° C[2]	13.0° C[2]	16.0° C[2]
Turbidity	Not >5 NTU over background when background turbidity <50 NTU, or not >10% increase in turbidity when background turbidity >50 NTU	Not >5 NTU over background when background turbidity <50 NTU, or not >10% increase in turbidity when background turbidity >50 NTU	Not >5 NTU over background when background turbidity <50 NTU, or not >10% increase in turbidity when background turbidity >50 NTU	Not >5 NTU over background when background turbidity <50 NTU, or not >10% increase in turbidity when background turbidity >50 NTU

Shoreline Survey Monitoring

Shellfish beds are regulated based on fecal coliform (FC) monitoring, pursuant to the National Shellfish Sanitation Program. PIC programs often use E.coli (EC) sampling because it is more cost effective and has a better correlation with human health risk in fresh water. Jefferson, Kitsap, and Mason Health will conduct shoreline surveys and resulting hotspot confirmations and investigations in priority Hood Canal shoreline areas[1].

Monitoring Station Locations

Sampling routinely takes place near confluences of freshwater flows to marine waters and at selected upstream locations on tributaries. Monitoring stations are determined through review and consideration of the following:

- Geographical and hydrological characteristics of each watershed
- Water bodies on the state 303(d) List
- Water quality results and findings from earlier watershed assessment projects
- Types, locations, and densities of land uses within each watershed
- Locations of public parks and recreational shellfish beaches
- Monitoring station locations from other monitoring efforts (Puget Sound Assessment and Monitoring Program, Public Utility Districts, etc.)

Precision, comparability, and reproducibility of station locations are achieved through the identification and documentation of major landmarks and road crossings (visual and descriptive) and Geographic Positioning System (GPS) coordinates of latitude and longitude.

Segment Sampling

When a stream mouth is a fecal pollution hotspot, the stream system is investigated by dividing it into segments like major tributaries or stream segments with similar land uses. The segment samples are collected to assess fecal pollution contributions of each stream segment. Stations

[1] Hood Canal Regional PIC Program Phase 3 Workplan (Dec 2017)

are located at major tributaries or stream segments or at changes of land use.

Bracket Sampling

Bracket sampling can be used to evaluate fecal pollution increases across a parcel or land use. Find an upstream sample location, preferably publically accessible, as close as possible to the potential fecal pollution source. Select a downstream sample location as close as possible to the parcel or potential fecal pollution sources. Collect three to five sample sets and calculate geomeans for the upstream and the downstream station to determine whether bacteria increases across the property or land use. Obtain and document property owner's permission to sample on private property. Take photographs to document location and physical observations.

Post Correction Sampling

Sampling is conducted 2-3 times at confirmed shoreline hotspots after fecal source correction to confirm that fecal pollution sources have been corrected.

Monitoring Data Management

Effective quality assurance and quality control and data management are essential for assessing and using water quality monitoring results to identify and correct fecal pollution sources. Jurisdictions must review their data, pursuant to the approved QAPP, to ensure that all parameters monitored and laboratory analytical results are characteristic of expected results.

Kitsap Health has developed and tested a cloud-based water quality monitoring database and reporting system that streamlines the data reporting, hotspot confirmation and investigation processes. HCRPIC partners are encouraged to use the cloud database and will provide training and electronic access as needed.

By March 31, 2019, Kitsap Health will prepare and transmit HCRPIC Phase 3 monitoring data to SToret that was entered into Kitsap Health's database by December 31, 2018. The Port Gamble S'Klallam Tribe has a

SToret node and can assist jurisdictions to prepare and transmit data that was not entered into Kitsap Health's database.

Conducting Shoreline Surveys

A shoreline survey is the inventory and bacterial assessment of all flowing fresh water discharges to the shoreline project area. Most project areas require both wet and dry weather season shoreline surveys.

Wet season: November - April
Dry season: May - October

Dry weather events can identify problems in areas where stormwater masks fecal pollution sources or where residences are only occupied in the summer. **Wet weather** assessments can identify OSS failures caused by high seasonal groundwater and surface water drainage issues. Wet weather conditions are met when water is flowing off parcels and stormwater is flowing in roadside ditches or storm systems and is representative of typical wet weather conditions.

Shoreline Survey Field Preparation Checklist

- Check tides (http://www.protides.com/washington) and weather conditions
- Determine the shoreline to be surveyed and potential "start" and "end" access points. These can be a public access area, like a public boat launch, or from a property where consent has been granted to access the shoreline. The County's Assessor database and Washington State Department of Ecology's shoreline aerial photos can help determine potential public access points. Visit the area ahead of time to determine "start" and "end" accessibility.
- Determine whether you need a shoreline survey partner. Partners are recommended when the area is unknown, very muddy or marshy, or when distances or tasks can be more efficiently conducted with a partner. Always err on the side of caution, while using resources carefully and wisely.

- Estimate the number and type of samples to be collected and coordinate with the laboratory. Plan to deliver the samples within the required holding time.
- Develop a sampling strategy and sample labeling system ahead of time. There are several ways to name sampling stations. It is important to choose carefully because you will need to use this system throughout the project and these station names will be reported in grant reports and STORET. Examples are shown in Table 2.
- Gather field supplies, including a travel cooler with ice packs
- Calibrate refractometer

Table 2: Shoreline Survey Station Identifier Examples

Project Area	Naming Description	Station ID
Hood Canal 2 growing area	Hood Canal 2 may be abbreviated HC2 followed by sequential number	HC2.1,2,3….
Murden Cove	MUR followed by sequential number	MUR 1, 2, 3…

Conducting the Shoreline Survey

Park one vehicle safely at the "start" access point and another vehicle at the "end" access point. Place your business card, with cell phone number, on the dashboard or inside the driver's side window, to provide contact information.

Collecting Water Samples

1. The HCRPIC Phase III approved QAPP requires one field blank per sample event and one replicate sample for every ten sample sites. Typically, the replicate sample is collected at a larger flow, where it is easier to collect both samples at the same time without collecting debris or surface microlayer.
2. Wear disposable, waterproof gloves for your safety.
3. At the top of the field notebook page (Table 3), clearly print the project name, weather and tide conditions, date, start/end locations and direction of travel, and staff.

4. Clearly record each sample name, collection time, location, drainage type and size (seep, stream, pipe, pipe material and size) in the field notebook. Record detailed, parcel-oriented descriptions in the field notebook so outfalls can easily be re-sampled. Note any characteristics that will help distinguish the property when accessed from upland so the associated property address can be identified.
5. Record GPS latitude and longitude coordinates of the discharge in the field notebook. Entering the sampling station in the GPS helps re-locate the sample site.
6. Take a digital photograph of the sampling location with distinguishing features to help identify the location. In some instances, more than one photo may be necessary to re-identify the location for subsequent surveys.

Table 3: Field Notebook Example

Hood Canal Shoreline Survey – Hood Canal 2
DATE: _____
Staff: Banigan & Rork
Weather and tide conditions: *e.g. Rain, 50F, wind S at 10 mph, Low tide 2.1' at 10:22*
Start: Address and/or landmark and approximate distance

Sample ID	Time	Lat.	Long.	Description	Comments
HC2.1	10:15	xx.xxxxx	xx.xxxxx	6 in black flex in bulkhead	Matting at base of bulkhead
HC2.2	10:25	xx.xxxxx	xx.xxxxx	Beach seep	Raccoon tracks
HC2.3	10:43	xx.xxxxx	xx.xxxxx	4 in pvc pipe under dock	Suds
HC2.4	11:02	xx.xxxxx	xx.xxxxx	Stormwater diffuser on hillside	

7. Measure and record salinity in the field using a refractometer of each flowing discharge points, including stormwater outfalls, yard drains, bulkhead drains, pipes, drainage ditches, seeps, and sheet

flow, to distinguish between marine and fresh water. Collect fresh water samples at discharges with 10% (or ppt) or less salinity and collect a sample for marine water evaluation when salinity is more than 10%.

8. Proper technique for collecting, labeling, and transporting samples is critical to ensure that sampling data is valid. To be representative, water samples should be collected from free falling surface water when possible. Bottom sediments and surface bacteria can skew sample results. Use a black permanent marker to label 100 milliliter sample bottles with the sample identifier, date, and collection time.
9. Hold the sample bottle under the flow, using the sample wand if necessary, to fill the bottle to the 100-milliliter mark. Minimize the amount of underlying sediment and surface layer collected. Avoid contaminating the sample by touching the inside of the lid or bottle.
10. Note and document in the field notebook any unusual odors, matting, vegetation, laundry lint, food waste, warm temperature, animal tracks or waste, or any other characteristics that may indicate a sewage or laundry source.
11. Store samples in travel cooler or backpack cooler with ice to keep them within the holding temperature. Transfer the samples to a regular cooler with ice in the vehicle.
12. Wash hands as soon as possible after sampling and before you eat.

Transporting Samples and Chain of Custody

Transport water samples in coolers with enough ice packs to meet the temperature holding requirements. Use a smaller travel cooler on the shoreline and transfer samples to a larger cooler in the vehicle. Complete the chain of custody for transmitting water samples to the accredited contract laboratory. Check the appropriate sample type and turnaround time on the chain of custody.

Sample results

Water quality sample results are reported by the contract laboratory. Review the results and validate for quality assurance and quality control pursuant to the approved QAPP. Enter water sample results into a

water quality database (pg. 5). Kitsap Health's cloud database prints a report that shows which samples need confirmation, which locations have been confirmed as "hotspots," and can track field work, confirmed pollution sources, and post corrective sampling.

Confirmation Sampling

The HCRPIC guidance document specifies that initial shoreline samples that exceed a threshold of 200 FC/100ml or 100 EC/100 ml are confirmed by re-sampling twice and calculating the geometric mean value (GMV) of the three samples. **Re-sampling should occur as soon as possible and must be collected within the same weather season**. Fecal source investigation should begin as soon as possible in discharges that have two bacterial samples that are greater than or equal to 500 FC/100ml or 320 EC/100 ml. Sites where the GMV of three samples are equal to or exceed 500 FC/100ml, or 320 EC/100ml are considered confirmed bacterial "hotspots" that need further investigation. Refer to Appendix C-1 for a hotspot confirmation flow chart.

Pollution "Hotspot" Investigation Process

Table 4 and Appendix C-2 provide overviews of the hotspot investigation process. Rank the confirmed "hotspots" per the GMV and initiate investigation of the "hotspots" with the greater GMVs first.

Assemble an investigation package for each "hotspot" including: photos, maps, segment sampling, and parcel survey packages including OSS permit and maintenance records for nearby residences and education and outreach materials. Evaluate potential fecal pollution sources through property inspections and segment sampling. Prioritize parcel inspections as shown in Table 5 below.

Appendix C contains flow charts from the HCRPIC Phase II approved QAPP that illustrate when and how shoreline samples are confirmed, how they are investigated, and when and how a hotspot is closed.

Table 4: "Hotspot" Investigation Process

Step	Instructions
1	Confirm "hotspot" during the season it was confirmed (dry or wet) by collecting a minimum of three samples for GMV calculation.
2	Create map of the area within 200 feet of the "hotspot".
3	Conduct reconnaissance to assess number of homes, proximity to drainage, presence of livestock, possible access points for segment sampling, etc.
4	If ≤10 homes, review (OSS) records for all homes and inspect them.
5	If >10 homes, conduct segment sampling. Start at the discharge and collect samples uphill toward the source. Collect a minimum of three samples on separate occasions and calculate GMV for each segment. Note that segment sampling must occur during the same season that "hotspot" was confirmed. – If drainage is high throughout, conduct OSS record search and inspect all homes within 200 feet. – If drainage is not high throughout, conduct OSS record search and inspect all homes within 200 feet of the "hotspot" segment(s).

Conducting Property OSS Inspections

Property inspections are conducted to identify fecal pollution sources and to provide property owners and residents with information and free technical assistance to prevent premature OSS failures and other fecal pollution sources. Provide financial assistance information about OSS repair loans during property inspections.

Property OSS Inspection Preparation

Before conducting a site visit, gather all relevant information about the property that is being visited. Check available databases for OSS permit and maintenance records, and to see if there are any prior complaints or other useful information. Work with your supervisor if you feel the need to check with the local Sherriff's Office about potential safety concerns about a property, or if you need an escort

Table 5: Parcel Inspection Prioritization

Priority	Criteria
HIGH	Properties **with gravity OSS** within 200 feet of the drainage that have **one or more** of the following characteristics: – No OSS permit records – you must confirm if EH Clerical has not recorded search in Logger notes – Evidence of unpermitted repairs – Previous "Concern" or "Suspect" inspection rating – Permitted gravity OSS ≥ 30 old – History of public OSS or water quality complaints – Two or more deficient pump reports indicating component failure or malfunction, or surfacing failure – Livestock present, pasture and/or heavy use area in poor condition, with high probability of contaminated runoff due to topography.
MEDIUM	Properties within 200 feet of the drainage that have **one or more** of the following characteristics: – Permitted gravity OSS 15-29 old with no maintenance in last 6 years – Permitted gravity OSS 15-29 with one deficient pump report indicating component failure or malfunction, or surfacing failure. – Alternative OSS with multiple deficient inspections – consult ORME and OSS/DW before inspecting. – Livestock present, pasture and/or heavy use area in poor condition, with some probability of contaminated runoff due to topography.
LOW	Properties within 200 feet of the drainage that have **one or more** of the following characteristics: – Permitted gravity OSS 0-14 old – Permitted alternative OSS with 0-1 deficient inspections– consult ORME and OSS/DW before inspecting – Livestock present, with low probability of runoff due to topography.

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Consider taking a field partner in the following circumstances:

- Entering a home to conduct a dye trace
- Inspecting properties with “no trespassing” signs where the house is not visible from the road
- When site conditions make you uncomfortable

Before conducting property inspections, prepare PIC inspection packets, including a survey form (Appendix D), assessor records, and OSS permit and maintenance records for each property in the project area. Carefully review the OSS permit and maintenance records and prepare the inspection form. Note any maintenance deficiencies, public complaints, or information you would like to give to the homeowner on the survey form.

Conducting the Property OSS Inspection

Property OSS inspections consist of:

- Contacting the property owner/occupant to conduct the informational interview
- Obtaining access and consent to perform a field inspection of the property including an inspection of the OSS components and animal waste management
- Evaluating discharges leaving the property
- Making site-specific recommendations to reduce stress to the OSS
- Dye test the OSS when it has conditions that may indicate problems:
    - No permit records
    - No record of repair of documented failure or deficiency
    - Within 200 feet of polluted drainage
    - To determine functional status of the OSS

It is very important that the inspector be confident, cordial, well-organized, and professional when conducting property inspections. The job of inspecting private properties to identify pollution sources is much easier when the public perceives the inspector as an objective and trustworthy professional. Developing a good relationship and trust with the owner/occupant is the key to a successful site visit.

Health inspectors have the legal right to approach a property via the normal access route to the front door. Information collected during inspections can only be used as evidence if inspectors follow local property access and consent policy. Appendix B contains an example from Kitsap Health.

No Trespassing Signs

When there is "No Trespassing" sign, leave a door hanger (Fig. 2) with a brief description of the visit's purpose and contact information at a gate or fence post. Door hangers must not be placed in or on mailboxes, since mailboxes are legally reserved for U.S. Postal Service.

Hostile Residents or Pets

Cut a site visit short if the owner or resident makes you feel uncomfortable, threatens you, or shows any signs of hostility. Leave the property immediately if an individual makes threats or threatening gestures towards you and do not engage in confrontation. Drive away and find a safe location to note the details on an inspection form. Inform your project lead, field supervisor or manager immediately.

You have the right to defend yourself if you are attacked or threatened. How you choose to defend yourself will depend on the circumstances of the assault and your abilities. Use pepper spray if the person will not let you leave the property,

Figure 2: Door hanger example

Dogs can be a major threat in the field. It is strongly recommended that field staff carry dog treats and pepper spray when conducting property inspections. When entering a property, look for signs of dogs, such as doghouses or leashes and listen for barking. Stay in the car when dogs are present and assess whether the dogs are friendly or aggressive. Stay near the car with the door open for a minute or rattle a fence or gate and call out a friendly greeting with your name and affiliation several times to draw attention to yourself and listen for barking. If you feel confident that there is no immediate threat, continue to follow the main path to the front door. If not, wait a few minutes to give the resident time to notice the dog barking and come to the door. Note the dog on the survey form and if possible, note the owner's or resident's name to try to make phone contact to schedule an appointment. You can also leave your business card or door hanger at the door or gate with the date and time you were on the site.

If you encounter a hostile animal on the property or feel an attack is imminent leave the property immediately and notify your manager or field supervisor. If the animal is not allowing you to leave and the owner/occupant is unwilling or unable to provide assistance, the use of defensive pepper spray is authorized. After the spray is discharged leave the property and notify your manager or field supervisor. If you have been assaulted, and you are able to get to a safe place, call 911.

Approaching the Property

Take only the items you will need for your site visit, including identification, cell phone, dog treats, and pepper spray. Women should conceal their purse securely in the vehicle or trunk. Have materials organized and ready to go in a briefcase or clipboard. Do your preparation and follow-up away from the dwelling if possible.

Announce your presence by identifying yourself and your organization as you near the structure. This will alert the owner/occupants if they are outside that you are approaching and alert any dogs that might be loose or in the yard. Proceed to the front door. Knock and ring the doorbell while announcing yourself. Following no response at the front door, it is

acceptable to follow the main access route to the back door. Call out a greeting in case someone is working outside and knock on a side or back door, provided this does not infringe on the curtilage of the property. Curtilage is the land immediately surrounding and associated with the home. An example of Kitsap Health's curtilage guidance is described in Appendix B.

Step back from the door while waiting to make sure there is a comfortable distance between you and the door. If the owner or occupant is there (must be over 18 to provide consent) and opens the door, introduce yourself, hand them your business card, and ask if they are available to talk for a few minutes. If they say "yes" then provide a brief introduction about your visit: reasons for the PIC project, details of a public complaint, or deficiencies noted in a maintenance report. Be concise in conveying information. Answer questions and offer to call with information if you don't have the answers. If they say "no" ask if you can have their phone number to arrange a convenient time to come back.

Inspecting the On-site Sewage System

The PIC property survey form (Appendix D) includes a checklist of topics to address during the property inspection. Work through the form and provide the owner or occupant with a copy of their OSS records (when available) to provide an overview of their system. Ask whether they have experienced any problems like odors, soggy spots, or backups. Identify on the survey form whether the property is upland, streamside, on a marine shoreline, drains to storm water systems, or has potential FC sources

It is important to get consent from the owner or occupant to walk over the drainfield during the PIC site inspection. Use this as an opportunity to educate the owner/occupant about the location of the OSS components and how to protect them, signs of OSS problems and failure, and what a properly functioning drainfield should look like. Make site-specific suggestions that the owner/occupant can use to protect their OSS investment (i.e. conserve water, route surface or

ground water away from components, reduce waste strength and avoid using harmful chemicals, and prevent physical damage).

If there are no OSS permit records and the owner/occupant knows the approximate location of the components, make a rough sketch of the components on the PIC property survey form and note "per recollection of the" owner or occupant. This information can be added to local permit records. The 2020 target in the Puget Sound Action Agenda is to document all OSS in marine recovery areas and other designated areas with 95% of system inspections current and all deficient systems repaired or replaced.

When the visit is complete, thank the person for allowing you to interview them. Gather all your belongings and try to leave immediately and go to a safe place to record site visit details. Assign a rating to the OSS following the inspection using the OSS rating criteria in Table 6. **It is very important to carefully follow the rating guidance, to provide consistency between inspectors and jurisdictions.**

Table 6. HCRPIC OSS Inspection Rating Classifications

Rating	Criteria for Meeting Classification	Action
No Apparent Problems	– Completed/signed Sewage Disposal Permit on file at local health jurisdiction, or provided by owner and entered into record – No illegal repairs or alterations performed on OSS – All applicable setbacks and conditions in effect at the time of permitting are in place	None
No Records	– No completed/signed Sewage Disposal Permit on file at local health jurisdiction, or provided by owner/occupant – No Concern, Suspect or Failure conditions were observed	None

Concern	Concerns include, but are not limited to: – System with no records and drainfield less than 50 feet from surface waters or wells – Improper use of designated reserve area – Vehicular traffic and/or pavement on OSS components – Roof drains or other drainage/infiltration systems potentially impacting the OSS – Unpermitted expansion or modification of existing structure(s), or addition of new structures, or recreational vehicle connections that impacts the OSS – Unpermitted work conducted on the OSS – Excavation or excess fill within the OSS area, or a cut down slope of the OSS that has the potential to impact the OSS performance	Consult project lead for un-permitted alterations, expansions, repairs, connections or new construction
Suspect	– Drainfield area is saturated – Collected water sample results from bulkhead drains, curtain drains, or other pipes or seeps, **at or above 500 FC/100 ml (or 406 EC/100ml) and a positive non visual dye test** confirmed by Ozark Underground Laboratories – Collected water sample results from bulkhead drains, curtain drains, or other pipes or seeps, **less than 500 FC/100 ml (or 406 EC/100ml) and positive visual dye-test**	Mail Suspect Letter Follow up wet season dye test Note property records

Failure	– Sewage on the surface of the ground – Sewage discharged directly to surface water or upon the surface of the ground unless the discharge is under permit from Ecology – Sewage backing up into, or not draining out of a structure caused by slow soil absorption of septic tank effluent – Sewage leaking from a septic tank, pump tank, holding tank, or collection system – Any component of an onsite sewage system or public sewer connection found to be broken, in disrepair, or not functioning as intended – Inadequately treated sewage effluent contaminating ground or surface water – Collected water sample result from bulkhead drains, curtain drains, or other pipes or seeps, at or above 500 FC/100 ml (or 406 EC/100ml) **and** positive visual dye-test results – Cesspools/seepage pits where evidence of ground or surface water quality degradation exists, or inadequately treated effluent contaminating ground or surface water – Non-compliance with standards stipulated on the permit, with the regulations in effect at the time the system was approved for use, or with the regulations in effect at the time the structure was constructed or modified – Straight discharge (greywater or blackwater) from any indoor plumbing, including recreational vehicles, is observed and documented	Enforcement Note property records Notify WSDOH shellfish program if failure discharges to shellfish beds

Dye Testing

Use field and office review, as well as best professional judgment, to determine which residences to dye test in a hotspot drainage (Table 7). The age of the OSS, its proximity to the drainage, and/or the existence of potential or actual conveyance are key factors to evaluate.

Table 7: Dye Test Determination Matrix

Dye Test Determination	Criteria
REQUIRED (*See Manager for exception*)	1. No OSS records, and one or more living units are setback < 200 feet from surface waters. 2. Permitted gravity systems with evidence of unpermitted repairs, and drainfield is <100 setback. 3. A drain pipe on, or just off, the property with a permitted OSS that has odors, grey/black matting, and/or high bacteria counts. 4. A storm water structure on the property, or just off the property, with a permitted OSS that has evidence of illicit sewage discharge or connection.
RECOMMENDED (*Inspector discretion*)	5. No OSS records, and living units are >200 feet setback from surface waters. 6. Permitted gravity systems that have a history of deficient pumper reports, and drainfield is <100 setback. 7. Permitted gravity systems that are 30 years or older, and drainfield is <100 setback. 8. Permitted alternative systems with a history of deficient maintenance reports, and drainfield component is <100 setback.
OPTIONAL	9. All other OSS with factors indicating any probability of failure

Always conduct a follow up dye trace in the wet season when a dry season dye trace is negative, or is suspect. Properties

inspected during the dry season, that have potential for wet season problems, must be re inspected during the wet season.

Unresponsive Property Owners

It is recommended to make three attempts to contact each property owner/occupant by door hangers left at the door, including one attempt on a Saturday. Note dates, type of contact, and results of contact attempts on the PIC inspection form or complaint form. Send a letter describing the project to those properties that have not responded. Use bracket sampling to investigate non-participating and denied access properties.

Property parcels where the owner/resident denies access to inspect the drainfield are rated "Denied Access." These properties are evaluated by reviewing OSS records, noting other potential FC sources, and determining the proximity of surface waters to the property. Those parcels draining to surface waters are investigated during wet weather conditions by collecting FC or EC water samples leaving the property. In the event the water samples show elevated bacteria levels that are impacting surface water, the inspector will contact the property owner to request a dye test.

State and local agencies have the authority to pursue administrative searches when implementing their civil enforcement authority, where specifically authorized by statute. In the event the owner remains unresponsive, a search warrant can be explored through the local prosecuting attorney's office pursuant to Chapter 70.118 RCW.

Conducting Property Animal Waste Inspections

Assessment of Non-OSS Fecal Coliform Pollution Sources

Pet Waste

State and many local regulations prohibit the discarding of pet waste in areas where it may pollute surface or ground water. Kitsap Health and Jefferson Health's solid waste regulations require that pet owners pick up pet waste at least weekly, or more often as necessary, double bag, and dispose in a sealed trash container.

Review local pet waste disposal requirements with owners or occupants on properties with pets during PIC property inspection.

Livestock Waste

Washington state, and Kitsap and Jefferson County's solid waste regulations require that animal waste be managed properly, including manure from livestock. According to these solid waste regulations, "animal manure shall not be deposited, or allowed to accumulate, in any ditch, gulch, ravine, river, stream, lake, pond, marine water or upon the surface of the ground, or on any highway or road right of way, where it may become a nuisance or menace to health or pollution of water."

It is important to start livestock and agricultural animal PIC inspections early in a project since the investigation and correction can be time consuming and challenging.

Contact your local Conservation District to gather any available farm inventory or ranking information. Conservation Districts conduct agricultural inventories using windshield surveys, ground observations and aerial photography. Site conditions are noted including: number and type of animals, acreage, pasture conditions, waste management,

livestock confinement, barns and outbuildings, topography and proximity of land use activity to surface waters.

Kitsap uses the 1-5 rating scale in Table 8, to evaluate properties based on potential to pollute. Parcels ranked “1” and “2” are considered high priority and are investigated.

Table 8: Farm Ranking Scale

Priority	Criteria
1: High	Pasture in poor condition. Livestock have access to surface water and/or there is a high probability of contaminated runoff due to topography sloping toward water body. Visual evidence of contamination problem.
2: Medium-High	Pasture in poor condition. Some reason to believe degraded conditions are seasonal or could get worse seasonally. Some areas on property reflect higher levels of management
3: Medium	Pasture is in fair condition. Open water in vicinity of the property but with limited access or evidence of use. A moderate probability of runoff.
4: Medium-Low	Pasture in good condition. No open water in vicinity and/or a low probability of contaminated runoff reaching surface water.
5: Low	Visual inspection from roadside indicates historic or recent past farming activity. Pastures not utilized by livestock. No livestock currently on site. Old barns and/or farm equipment evident.

When performing PIC inspections involving agricultural properties, follow the same procedure as described in conducting the property inspections, but **add the following items**:

1. Identify the property parcel boundaries (with the owner’s permission) to document and sample any flowing surface waters that leave the property

2. Photograph potential fecal pollution sources to the sampling points (see examples in Fig. 3), such as:
   - Accumulated animal waste (pets, livestock, and agricultural animals)
   - Non-vegetated, heavily used or muddy pastures or animal holding areas draining to surface waters
   - Animals with uncontrolled access to surface waters
   - Discharge pipes or ditches
   - Stormwater systems
   - Inadequate grease or food waste management which can attract wildlife

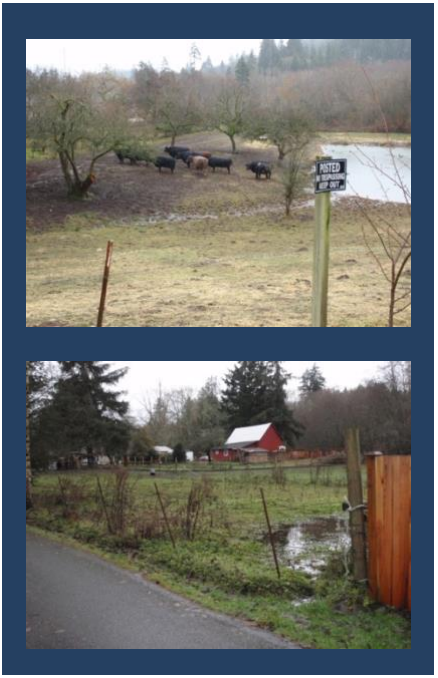

Figure 3: Photos of animal waste conditions

3. Inform the owner/resident of the potential fecal pollution source and let them know that they can choose to voluntarily work with the local Conservation District to help develop and implement interim and long-term waste management plans. Ask the property owner or resident if you can have a Conservation District representative contact them via telephone and/or email.
4. Sketch the parcel on the PIC property survey form, showing sampling locations, surface waters (marine water, lakes and ponds, streams, wetlands, and storm water) originating on, running through, or contiguous to the parcel. Show discharge pipes (noting material and diameter), number and locations of animals or birds, animal waste observed, stormwater system components, livestock stream access, and fencing.
5. Collect at least three water samples from the same location(s) on different days to best represent field conditions during wet weather conditions. Collect an upstream sample above the

property to bracket the parcel or potential fecal pollution source if possible. Fecal pollution source correction will be needed when the three sample GMV increases across the property by the Part 2 water quality standard for the water body.

6. Notify the owner or resident when you have confirmed an agricultural or livestock fecal pollution source and suggest that they work voluntarily with the local Conservation District. If the owner/resident refuses assistance from the local Conservation District, and/or does not want to address/correct the fecal pollution issue, staff will need to take enforcement action and utilize appropriate legal authority. If the county doesn't have legal authority, Ecology can be contacted for assistance.

Property Inspection Data Management

Property inspection ratings and reporting must carefully follow the OSS inspection rating classifications to provide consistency between jurisdictions in the Hood Canal region. The data from PIC inspections (contact information, parcel rating, dye tests, site-specific concerns, and materials distributed) need to be managed in a manner that is useful for inspection follow-ups, reporting, and subsequent projects using the HCRPIC Program Cumulative Data Report spreadsheet.

Pollution Source Correction

Voluntary Correction

Outreach and Technical Assistance

PIC staff provide education and outreach for property owners and residents to encourage and assist them to voluntarily correct fecal pollution sources. PIC staff also provide free technical assistance to property owners to help them mitigate fecal pollution sources. Typically, before initiating enforcement actions, PIC staff work with property owners to assist them to identify the cause(s) of the problem and offer suggestions for mitigation. PIC staff work with the owner to ensure that the owner has information and resources to keep the repair

process on track and prevent a public health threat from untreated sewage.

Financial Assistance

PIC staff provide information about financial assistance for OSS repairs. Craft3 is a non-profit community development financial institution with a mission to strengthen economic, ecological and family resilience in Pacific Northwest communities. Craft3 provides low interest loans and assistance to residents who may not have access to financing in Kitsap, Mason and Jefferson counties for the repair and/or replacement of onsite sewage systems. Additional financial assistance may be available to qualified residents through the US Department of Agriculture, or Indian Health Service.

Enforcement

Check your local jurisdiction for their enforcement policy for failing OSS. Enforcement is a tool that is used to ensure that OSS failures are corrected in a timely manner and that surfacing sewage does not pose a public health threat. Jefferson, Kitsap, and Mason Counties use the following tools when enforcement actions are necessary.

Notice and Order to Correct Violation Letter

A Notice and Order to Correct Violation (NOCV) letter is issued when conditions exist that are in violation of the local OSS and/or solid waste regulations, and issued pursuant to local OSS or solid waste ordinances.

The NOCV requires the owner/operator of a failing OSS to contact a licensed designer or professional engineer within an appropriate time period. A 7 or 14-day time period may be used in cases where there is a threat to public health, (e.g. surfacing sewage). PIC staff may issue a pump-out order for properties with failing OSS, as part of the NOCV. A pump-out order means that the tank is pumped as often as is necessary to keep sewage off the ground surface and from backing up in the residence. The owner/occupants are required to conserve water to prevent untreated sewage from surfacing and flowing into surface, ground or into storm water.

After the deadline specified in the written notice has been reached, the status of the violation must be determined. If a violation still exists, further enforcement options may be appropriate. Under normal circumstances, failure to comply with an NOCV is followed by a Notice of Civil Infraction (ticket). Mason County Health has the option to request the Hearings Examiner issue a non-compliance notice to title for, or place a lien on, a property with a failing OSS.

Search Warrants

In Washington State, an administrative search warrant can be obtained to conduct a dye test of an OSS if data shows the OSS may be polluting fresh or marine waters of the state. Administrative search warrants to address suspected OSS failures are only used after all other options are exhausted. The decision to pursue an administrative search warrant is made in coordination with local managers, directors, and the local prosecuting attorney's office. A description of the administrative search warrants follows, and is taken from the Private Property Access and Consent Policy found in Appendix B:

> *Administrative Search Warrant: State and local agencies can conduct administrative searches when implementing their civil enforcement authority, where specifically authorized by statute (Chapter 70.118 RCW). The administrative warrant application may be based on specific evidence of an existing violation or on a general inspection program based on reasonable legislative or administrative standards for conducting an area inspection. The agency may apply for the warrant only after the local health officer has requested inspection of the person's property under a specific administrative plan and that the person refused the health officer access to the property.*

The specific administrative plan is developed in response to pollution in commercial or recreational shellfish harvesting area or pollution in freshwater. The plan must include: the overall goal of the inspection; the location and address of the properties being authorized for inspection; requirements for notifying the owner or resident of the plan and its provisions and times of any inspections; the survey procedures

to be used in the inspection; the criteria that would be used to define an onsite sewage system failure; and the follow-up actions that would be pursued when an onsite sewage system failure is confirmed.

The local health officer develops and submits the plan to the court as part of the justification for the warrant, along with specific evidence showing that it is reasonable to believe pollution is coming from the septic system on the property to be accessed for inspection. The court official may issue the warrant upon probable cause."

The administrative search warrant process has been very effective in Kitsap County. The process begins with a letter from Kitsap Health. This is followed by a letter from Kitsap's prosecuting attorney's office requesting a voluntary dye test before beginning the formal process of requesting the dye test pursuant to a court-ordered search warrant. The prosecuting attorney's letter results in permission to dye test most of the time.

Reporting and Follow-up

Reporting and follow-up are an important part of any successful PIC project. Reporting is a required component of grant agreements and the quality of reporting will determine future funding. Accurate record-keeping is essential to ensure accurate reporting.

Follow-up is also a crucial part of successful PIC projects. Public cooperation depends heavily on whether participants feel that the rules are fairly applied to everyone.

Appendix A: Sampling/Testing Equipment

Sample Equipment

- **100ml sterile plastic water sample bottles**. Used to collect water samples for FC or EC analysis.
- **Sample wand**. Telescoping wand used to collect water samples.
- **Cooler with ice and/or ice pack(s)**. Used to store samples until delivered to lab.
- **Digital camera**. Used to document violations/items of interest. All inspectors are issued a digital camera in the Pollution Identification and Correction Program.
- **GPS** unit; used for shoreline surveys, trend and impact monitoring.
- **Dye tracers**. Ready-for-use individual liquid dye mixtures in 500 ml Nalgene® bottles stored separately from other PIC supplies in a water proof container. Used to dye-test OSS.
- **Charcoal packs**. Used during dye tests to "catch" dye. Packs are available in the storage cabinet located in the office and in a separate location from the dye tracers.
- **Whirl-Pak™ bags**. Used for storage of individual control and dye packs retrieved from sampling sites.
- **Water proof markers,** e.g. "Sharpie". Used to write on water sampling bottles for identification purposes.
- **Rubber bands and plastic bags.** Used to post and protect written materials left for property owners/occupants.

Paperwork

- **OSS permit records**. Used to assist inspectors locate the OSS on a specific property.
- **OSS monitoring and maintenance records**. Used to determine if the alternative OSS on the property has been properly maintained through the monitoring and maintenance program.
- **PIC property inspection form**. Used to record needed information regarding the property being inspected.
- **PIC door hanger**. Used to inform area residents that a Health Inspector visited that property, and to provide information regarding the purpose of this visit.

- **“Rite-in-the-Rain” notebook**. Used to map sampling locations.

Safety Equipment

- **Identification badge**. Used to identify you to property owners. Badges are issued to the inspector.
- **Business card**. Used in conjunction with badge to identify yourself to property owners. Cards are issued to the inspector.
- **Cellular phone**. Inspectors are issued a cellular phone for use while conducting business, or they may use a personal cell phone.
- **Pepper spray**. Used for self-defense. Inspectors are trained annually in the use of pepper spray. Pepper spray containers are issued by the Health District after completion of the training.
- **Disposable latex gloves**. Used to protect an inspector from pathogenic organisms that are associated with sewage.
- **Personal Protective clothing** includes; steel toe or safety toe boots and rain gear (jacket and rain pants). These items are provided to staff according to the Collective Bargaining Agreement.
- **Hand-wipes/sanitizer**. Used to clean hands. Always use a hand-wipe after collecting water samples or charcoal packs.
- **Chlorine bleach solution**. Used for cleaning-up spilled dye. Wear gloves while handling.

Appendix B: Kitsap Health Private Property Access and Consent Policy

This discussion of search and seizure law and access procedures is intended to provide guidance only. Search and seizure analysis is very fact-intensive and inspectors are cautioned to discuss field conditions with their supervisors and to seek legal counsel where appropriate. This Private Property Access and Consent information is used by Kitsap Public Health District. The basis for the guidelines comes from interpretation from State Law cases and so should be transferrable to other Counties, however Kitsap recommends that Counties check with their legal contacts before adopting these guidelines.

Private Property Access and Consent

Site Entry and Searches

Inspectors must enter private property while conducting inspections or surveys. Because the state and federal constitutions prohibit unreasonable searches, an inspector must decide whether he or she may legally enter a property to conduct an inspection. In all cases, an inspection can occur only if (1) the inspector makes observations from a place where the inspector may legally be without consent, or (2) after obtaining consent from a responsible party (owner or tenant). To assist you in determining whether you may enter a property some basic constitutional doctrines are discussed below:

Reasonable Expectation of Privacy

There are two components to a reasonable expectation of privacy. The first is a subjective component: Does the person have a subjective expectation of privacy in a particular object or location? The second is an objective component: Is this expectation one that society recognizes as reasonable? Generally, a person has a reasonable expectation of privacy in his home, in the area immediately adjacent to the home, and in areas where he/she has taken steps to exclude the public and shield the area from the public's view.

Residence

A person always has a reasonable expectation of privacy in his/her home. You may not enter a person's home, except with the resident's consent.

Curtilage

The land immediately surrounding and associated with the home, i.e., that area associated with the intimate activity of a home and the privacies of life. Curtilage receives the highest level of protection under both the federal and state constitutions. You may not enter the curtilage without a resident's consent, except as explained below. To help determine if an area is within the curtilage, answer these questions:

Q: How close is the area you want to inspect to the house?

A: The closer the area you want to inspect is to the house, the more likely it will be considered within the curtilage.

Q: Is there a fence or other enclosure that surrounds the house *and* the area you want to inspect?

A: A fence that surrounds the house suggests the limits of the curtilage. Accordingly, where a house is situated on a standard lot and the lot is fenced, that is the limit of the curtilage. On a larger piece of property there may be a fence around the perimeter of the property, and an inner fence enclosing the house. In that case, the interior fence would indicate the limits of the curtilage. A clearing or maintained area has the same effect. Thus, on a larger piece of property that is forested, the cleared area surrounding the house would indicate the limits of the curtilage.

Q: What is the area you want to inspect used for?

A: The concept of the curtilage is to protect those activities normally associated with the home and the privacies of life. Thus, if an area near the house is used for family or personal activities (e.g., play area, patio, garage), then it is probably within the curtilage. However, if the area is used for activities

not associated with home life, especially illegal activities, then it probably will not be considered within the curtilage. You may use evidence you observe from the road or a neighbor's property, or information a neighbor gives you, to determine if an area is being used for an activity associated with the home or some other activity.

Q: Has the resident taken any steps to protect the area you want to inspect from observation of passersby?

A: If a fence -- especially a sight-obstructing fence -- or hedge shields the view of the house from the street and neighboring properties, then the area within the fence or hedge will probably be considered within the curtilage.

Q: Can an inspector ever enter the curtilage?

A: Yes. You may enter the curtilage to contact the resident. In doing so, however, you may use only a recognizable access route, such as a driveway, walkway, or path. Approach the house as any reasonably respectful citizen would. Normally, you should not enter a side or back yard. You may, however, call out or try to get someone's attention if you see or hear something that leads you to believe the resident is in a side or back yard.

Other factors to consider when conducting an inspection of private property are included below.

No Trespassing Signs

A "No Trespassing" or "No Solicitors" sign does not prohibit you from approaching a residence using a recognized access route for the purpose of contacting the resident.

Open Fields:

Areas that are outside the curtilage are considered "open fields" and do not always receive the same high level of constitutional protection that the curtilage does. In an urban area, you may not find any open fields. In outlying areas, however, you are likely to encounter them. An open field doesn't need to be either "open" or a "field." It could be a thickly

wooded area or a beach. Generally, an open field is any unoccupied or undeveloped area outside the curtilage.

In many instances, you will be able to enter open fields without the permission of the owner. However, you need to consider whether the owner has manifested an “expectation of privacy” in the area you want to enter. Some manifestations of an expectation of privacy are: 1) a long driveway; 2) “No Trespassing” signs; 3) fences, especially sight-obstructing fences, or maintained hedges; 4) a locked gate; or 5) the area cannot be seen from a road or neighboring property.

Each situation is different, so it is not possible to provide a blanket rule for entering open fields. It may be best to consult with a supervisor before entering.

Open View

If you are in a place you may legally be, such as a roadway, public property, a neighboring property that you have permission to be on, or are approaching the residence via a recognized access route, then you can base an enforcement action on anything you can see from that vantage point. Accordingly, if a person allows you in his/her backyard, and you can see illegally stored solid waste on the neighbor’s patio, you can write a notice and order to correct the violation or a notice of civil infraction, based on what you can see from the neighbor’s property. As long as you remain on the property you have permission to be on, you can climb a ladder to see over a fence, or use binoculars. You may take photographs from a place you may legally be.

Plain View

The plain view doctrine applies when you have entered a property with the resident’s consent. The plain view doctrine allows you to use anything that you see inadvertently as you walk through the area. The object must be in plain view; you may not move anything. You may not remove a lid on a trash container to see inside. Plain view works the same way when the resident has given you permission to look around. If you want to see inside or under something, ask the resident if it’s okay.

Consent

An inspector obtains valid consent to inspect when he or she asks the resident for permission to conduct an inspection and receives an affirmative response through words or action.

When seeking consent to access a property, it is important to set the property owner's or user's expectations. Explain the purpose of your entry into a residence or curtilage and explain the scope of consent you are requesting. Document the consent in field notes, including from whom it was requested and obtained, and any limitations on time, location, and repeat visits.

Avoid statements like "I'm going to look around," or "I have to inspect the property". A person who submits to an inspection after such a statement has not necessarily given his/her consent to the inspection and a court could suppress anything that is found during the inspection. A civil enforcement inspector need not inform a person of his/her right to refuse an inspection but, if the person asks whether he/she may refuse, the inspector must tell the person that he/she may refuse (or may limit the scope of the inspection).

Where two or more persons may claim a reasonable privacy interest in a particular dwelling or premises, consent given by one individual may be valid only as to common areas and to the specific area over which the giver of consent has authority or control.

Administrative Search Warrant

State and local agencies can conduct administrative searches when implementing their civil enforcement authority, where specifically authorized by statute.

The local health officer may apply for an administrative search warrant to identify failing septic tank drainfield systems. The administrative warrant application may be based on specific evidence of an existing violation or on a general inspection program based on reasonable legislative or administrative standards for conducting an area inspection. The agency may apply for the warrant only after the local

health officer has requested inspection of the person's property under a specific administrative plan and that the person refused the health officer access to the property.

The specific administrative plan is developed in response to pollution in commercial or recreational shellfish harvesting area or pollution in freshwater. The plan must include: the overall goal of the inspection; the location and address of the properties begin authorized for inspection; requirements for notifying the owner or resident of the plan and its provisions and times of any inspections; the survey procedures to be used in the inspection; the criteria that would be used to define an onsite sewage system failure; and the follow-up actions that would be pursued when an onsite sewage system failure is confirmed.

The local health officer shall develop and submit the plan to the court as part of the justification for the warrant, along with specific evidence showing that it is reasonable to believe pollution is coming from the septic system on the property to be accessed for inspection. The court official may issue the warrant upon probable cause.

Appendix C: Fecal Pollution Hotspot Flow Charts

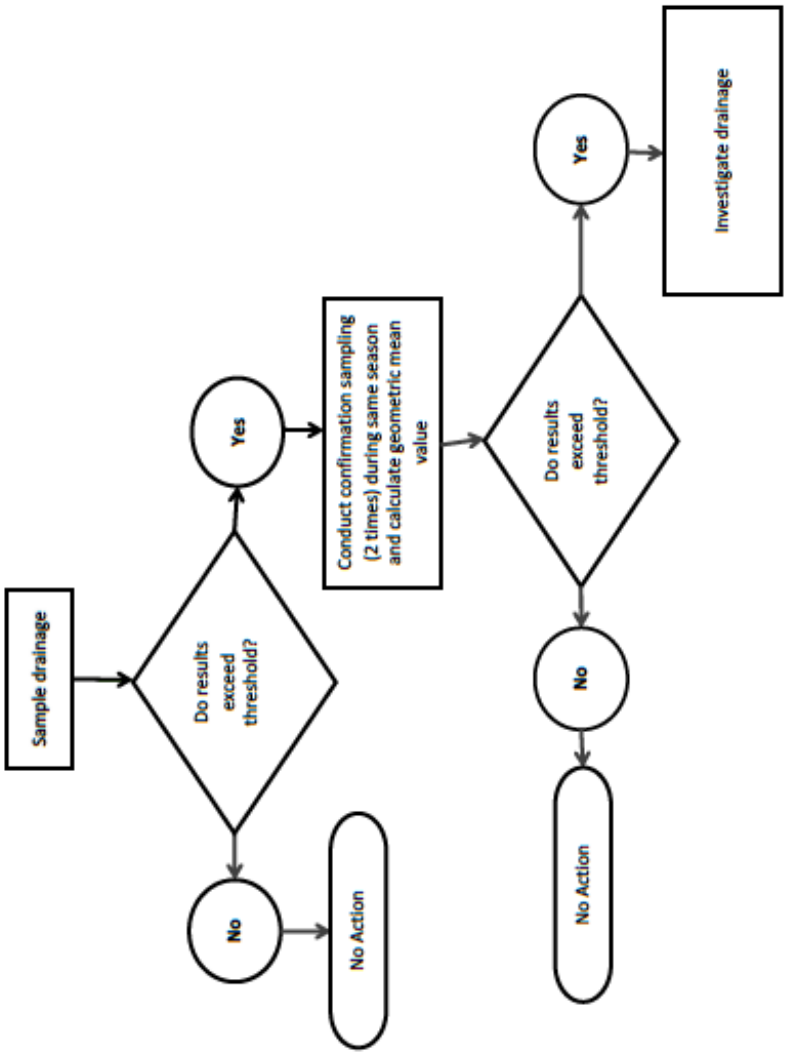

Figure 1: Fecal Pollution Hotspot Confirmation Flow Chart (from HCRPIC Phase II Approved QAPP)

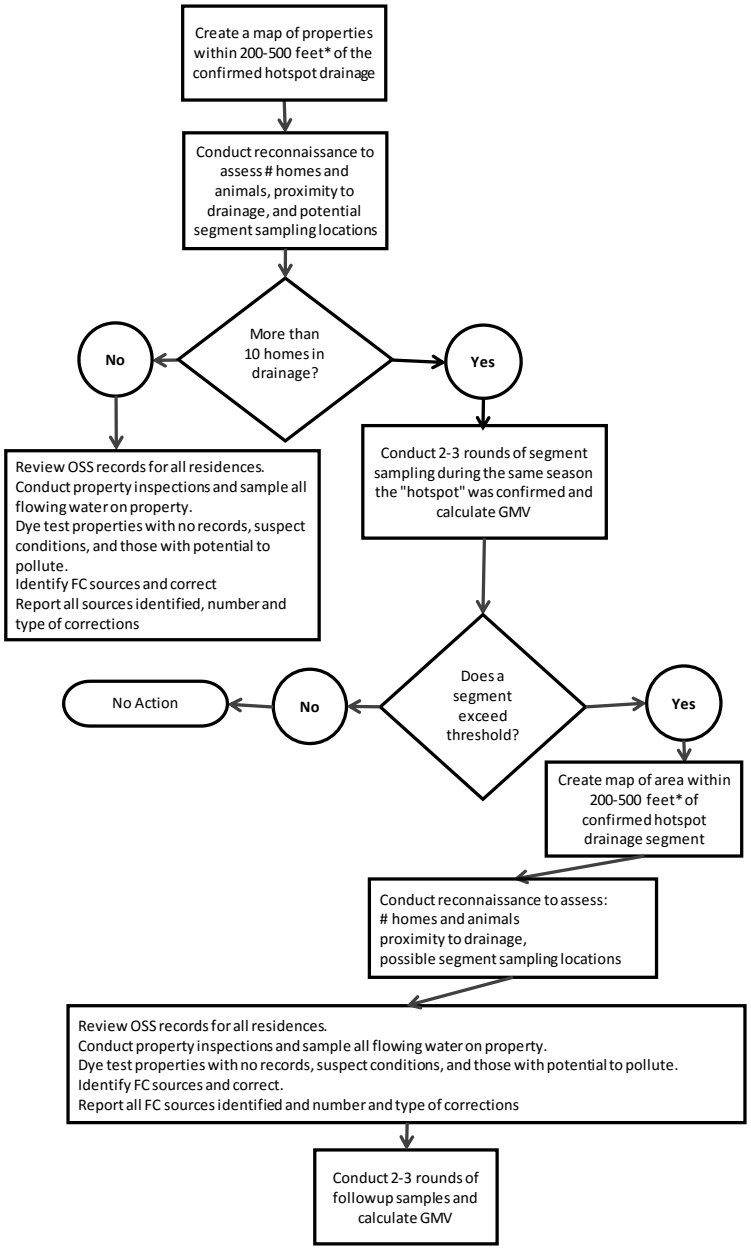

Fig 2. Fecal Pollution Hotspot Investigation Flow Chart (from HCRPIC Phase II Approved QAPP)

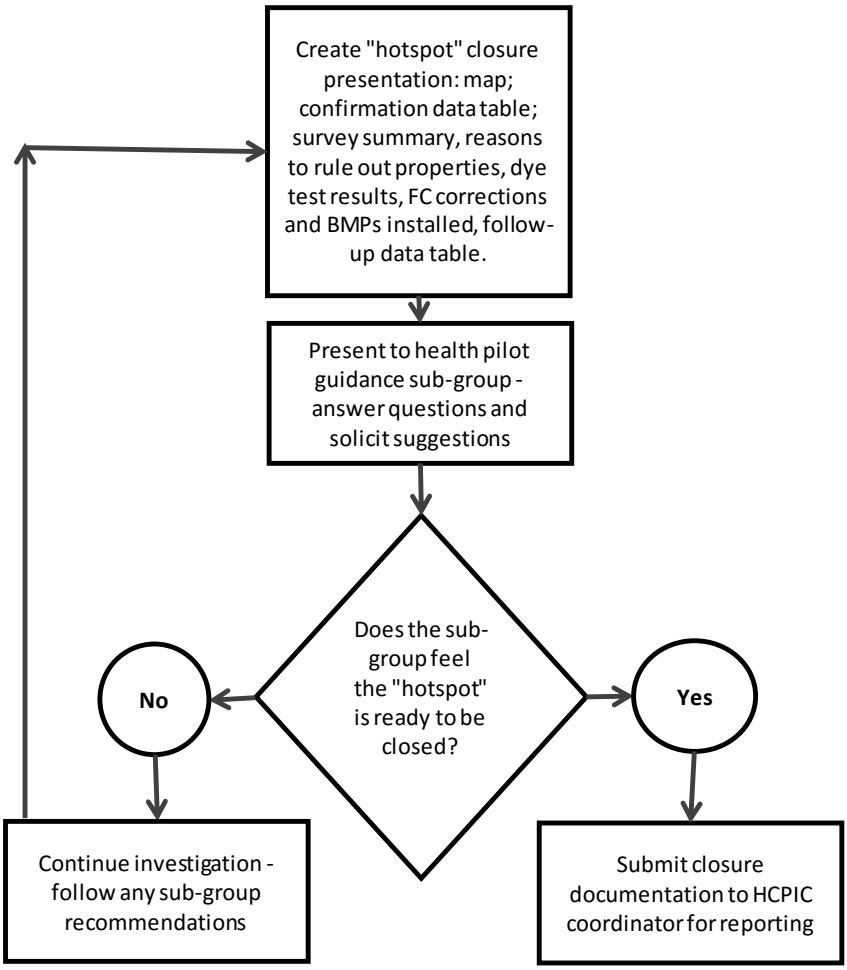

Figure 3: Fecal Pollution Hotspot Closure Flow Chart (from HCRPIC Phase II Approved QAPP)

Appendix D: PIC Property Survey Form

PROPERTY TAX ID:

PROJECT AREA	ADDRESS
OWNER NAME	PHONE
OCCUPANT NAME	

PROPERTY INFORMATION:

Occupancy Type: __ Commercial __ Single family __ Multi-family	System Type: __ Std. gravity __ Pressure __ Drip irrigation __ Glendon __ Other: _____ __ M & M contract	Records on File: __ BSA __ Permit __ As built	# Bedrooms: # Occupants:	__ Marine shoreline __ Fresh. shoreline __ Upland Distance to OSS:
Survey date(s):	Staff:	OSS rating:	Farm rating:	Date last pumping:
Roof drains: __ OK __ Needs improvement	Curtain drains: __ OK __ Needs improvement	Bulkhead drains: __ OK __ Needs improvement	Pets present: (# & type)	Livestock present: (# & type)

Notes/Comments on OSS and/or other property conditions:

OSS EDUCATION CHECKLIST:

___ Water usage: (hydraulic loading, plumbing leaks, laundry, garbage grinder, low flow fixtures, runoff, sprinklers)

___ Waste strength: (use of additives, chemical drain cleaners, bleach, fabric softener, meds, fats/oils/greases)

___ Physical damage: (driving over drainfield, bldgs/structures, heavy equipment etc.)

___ Inspect system regularly (pump/inspect frequency, warning signs of failing OSS, purpose for reserve area)

___ Educational materials provided circle 1 or more (Fact Sheet, OSS manual, Repair brochure, Pet waste)

ANIMAL WASTE CHECKLIST:

Animal waste management:	___ OK	Needs ____ improvement	___ Violation

___ Pet waste

___ Manure from livestock

___ Referral to Kitsap Conservation District:

_____

_____

_____

_____

_____

OSS INFORMATION:

IF FLOWS FROM THIS PROPERTY ARE POTENTIALLY IMPACTING WATER QUALITY, OR IF THERE IS NO "AS BUILT," COMPLETE THE FOLLOWING:

In the box below, draw sources/areas of animal waste, surface water flows, locations of OSS and where samples/dye tests were collected/placed on the property. For consistency, indicate distances and directions on the drawing (Not To Scale). **If no "As Built," draw OSS per owner's information.**

Notes:

_____

_____

_____

_____

DYE TEST DATA:

Dye Test Date:				**Dye Used:**								
Location Number	**Control (BAC)**			**Pack Week #1**			**Pack Week #2**			**Pack Week #3**		
	Placed	Retrieved	Result	Placed	Retrieved	Result	Placed	Retrieved	Result	Placed	Retrieved	Result
1												
2												
3												

WATER SAMPLE DATA:

Sample Date	**Inspector**	**Result (FC per 100mL)**	**Location**