WHATCOM COUNTY COUNCIL

SPECIAL COUNCIL MEETING
AS THE
HEALTH BOARD

10:30 a.m. Tuesday, February 2, 2016
Council Chambers, 311 Grand Avenue

A G E N D A

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<thead>
<tr>
<th>Meeting Topics</th>
<th>Pages</th>
<th>Time</th>
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<tr>
<td>1. Public Session</td>
<td>no ppr</td>
<td>10:30-10:40</td>
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<tr>
<td>2. Director/Health Officer Report</td>
<td>no ppr</td>
<td>10:40-11:00</td>
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<tr>
<td>3. Public Health Advisory Board (PHAB) Update</td>
<td>no ppr</td>
<td>11:00-11:15</td>
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<td>4. Health in Planning Recommendations</td>
<td>1 - 25</td>
<td>11:15-12:15</td>
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<td>5. Local Management Plan</td>
<td>26 - 92</td>
<td>12:15-1:00</td>
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BACKGROUND:

On October 6, 2015, the Whatcom County Health Board adopted Resolution 2015-038 committing Whatcom County to adopt a healthy planning approach. With this resolution, the Health Board established, as a matter of policy, that the County will apply a “Healthy Planning” approach to community planning processes and decision-making, including but not limited to the Whatcom County Comprehensive Plan. The resolution calls on the Whatcom County Public Health Advisory Board (PHAB), working with the Whatcom County Health Department and other city and county departments, to identify and recommend tools, processes, and opportunities to integrate a health perspective in community planning processes and decision-making. The resolution also calls on the Public Health Advisory Board to make initial recommendations to the Health Board regarding a “Healthy Planning” approach on or before January 31, 2016.

IMPORTANCE:

Many policies and plans that are outside the traditional health sector have significant impacts on health opportunities. For example, land use, transportation, economic development, housing, education, and public safety policies and plans have implications that are critical for health and well-being. The goal of a healthy planning approach is that all plans developed and adopted by Whatcom County include explicit consideration of health impacts and identify opportunities for creating health-promoting environments. Ultimately, these efforts will result in a healthier Whatcom County. Whatcom County residents will be better off because:

- public resources will be used efficiently,
- residents will have more equitable and greater access to conditions essential for health,
- public resources will be distributed to communities that are most underserved, and
- health disparities will be reduced over time.

ANALYSIS:

Implementing a healthy planning approach will require ongoing dedication and commitment of county resources, including:

- Leadership commitment
- Staff time (County Departments--Health, Planning, Public Works, Parks and Recreation, Council and Executive Offices)
- Training/technical assistance
- Ongoing evaluation and accountability

*Our mission is to lead the community in promoting health and preventing disease.*

2/14/13
REQUESTED ACTION:

- Public Health Advisory Board requests that the Health Board approve the Health Department’s recommended process for implementing a healthy planning approach including:
  - Development of policy screening and analysis tools to assist Council decision-making
  - Implementation of a cross-departmental working group, including cross-departmental staff training (open for participation of County Council members and other stakeholders)
  - Review of Comprehensive Plan chapters through a health lens

Attachments

1. Healthy Planning Resolution (Resolution# 2015-038)
2. PowerPoint Presentation
3. NACCHO Statement of Policy: Health in All Policies (for background information only)
**TITLE OF DOCUMENT:**
Res. Committing Whatcom County to adopt a "Healthy Planning Approach"

**ATTACHMENTS:**

<table>
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<tr>
<th>SEPA review required?</th>
<th>Yes</th>
<th>No</th>
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<tr>
<td>SEPA review completed?</td>
<td>Yes</td>
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**SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:**
Resolution Committing Whatcom County to adopt a "Healthy Planning Approach"

**COMMITTEE ACTION:**

**COUNCIL ACTION:**
10/6/2015: Approved 6-0, Kremen absent, Res. 2015-038

**Related County Contract #:**

**Related File Numbers:**

**Ordinance or Resolution Number:**
R2015-38

**Please Note:** Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County’s website at: www.co.whatcom.wa.us/council.
COMMITTING WHATCOM COUNTY TO ADOPT A “HEALTHY PLANNING” APPROACH

WHEREAS, the health and well-being of the residents of Whatcom County are critical for a prosperous and sustainable Whatcom County; and

WHEREAS, health starts—long before illness—in our families, neighborhoods, schools, and jobs; and

WHEREAS, there is growing awareness that health is influenced by the interaction of many factors, and not simply by genetics, individual behavior, or access to medical care; and

WHEREAS, it is now widely accepted that health is also determined by social and economic factors and opportunities including the availability of resources and supports in homes, neighborhoods, and communities-at-large; and

WHEREAS, all people in Whatcom County should have the opportunities to make the choices that allow them to live long, healthy, and productive lives regardless of their income, education, or ethnic background; and

WHEREAS, data show that people living in poverty, or who have limited education, or who live in isolated areas in Whatcom County, or who experience racial or ethnic discrimination or other social stresses are more likely to report poor health status and have lower life expectancy; and

WHEREAS, data also show that people who have greater access to economic resources, social supports, and healthy community amenities such as quality affordable housing, safe places to walk, bike, play, and connect, and places to get affordable healthy foods for their families are more likely to experience good health status; and

WHEREAS, plans and policies implemented by Whatcom County outside of the traditional health sector significantly affect access to health opportunities; and

WHEREAS, these plans and policies include those related to land use, food access, housing, transportation, public safety, education, parks and recreation, water and air quality, criminal justice, and economic development; and

WHEREAS, increasing health opportunities can lead to improved health, reduced health disparities, reduced health care costs, and reduced criminal justice costs; and

WHEREAS, a “Healthy Planning” approach involves inclusion of health criteria in the development and adoption of community plans and policies; and
WHEREAS, by adopting a “Healthy Planning” approach, Whatcom County demonstrates its commitment to address health as a community priority and increase health opportunities; and

WHEREAS, the Whatcom County Public Health Advisory Board serves in an advisory capacity to the Health Board and to the Whatcom County Health Department; and

THEREFORE BE IT RESOLVED that it shall be the policy of Whatcom County to apply a “Healthy Planning” approach to Whatcom County’s community planning processes and decision-making, including but not limited to the Whatcom County Comprehensive Plan; and

BE IT FURTHER RESOLVED that the Whatcom County Public Health Advisory Board, working with the Whatcom County Health Department and other city and county departments, will identify and recommend tools, processes, and opportunities to integrate a health perspective in community planning processes and decision-making; and

BE IT FURTHER RESOLVED that topics of consideration in community planning may include, but are not limited to, access to health care services; affordable, safe, and healthy housing; active living and transportation; access to healthy food; clean air, water, and soil; parks, recreation, and green spaces; economic opportunity; safety and violence prevention; and support for children, families, and other vulnerable populations; and

BE IT FURTHER RESOLVED that the Public Health Advisory Board will make initial recommendations to the Health Board regarding a “Healthy Planning” approach on or before January 31, 2016; and

BE IT FINALLY RESOLVED that the Health Board will review this policy on an annual basis to evaluate progress.

APPROVED this 6th day of October 2015.

Carl Weimer, Health Board Chair

ATTEST:

Karen Brown Davis, Clerk of the Board

WHATCOM COUNTY BOARD OF HEALTH
WHATCOM COUNTY, WASHINGTON

APPROVED AS TO FORM:

Karen Frakes, Civil Deputy Prosecutor
“... it shall be the policy of Whatcom County to apply a ‘Healthy Planning’ approach to Whatcom County’s community planning processes and decision-making ...”
<table>
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<tr>
<th>How will WCHD support implementation?</th>
<th>What targets need to be reached?</th>
<th>What is the desired change?</th>
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Elements of best practice

- Promote health and equity
- Support collaboration across sectors
- Benefit multiple partners
- Engage stakeholders
- Create structural or procedural change
Healthy Planning Resolution

Schematic of Proposed Process

COUNTY DEPARTMENTS

• Standing committee that meets periodically comprised of representatives from County departments

• Tools & processes to consider health in policy and planning decisions are provided for all department staff

COUNTY COUNCIL

• Applies a health lens to decision-making using a range of policy analysis tools

• May also request additional information if warranted

Proposals, Policies, Plans

Final decision

STAKEHOLDER & COMMUNITY ENGAGEMENT

Agenda Packet Page 10
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Agenda Packet Page 11
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Example: Comprehensive Plan

COUNTY DEPARTMENTS

• Outreach to PDS
• Workshop with stakeholders
• Policy recommendation to PDS
• Further collaboration

STAKEHOLDER & COMMUNITY ENGAGEMENT
NEW: Goal 7L - Local food system

Goal 7L:
Strengthen the local food system and take steps to improve conditions for a healthy, resilient, and prosperous food economy.

Policy 7L-4:
Support food outlets such as grocery stores, convenience stores, and local food markets that provide healthy foods in underserved areas.
Example: Comprehensive Plan

COUNTY DEPARTMENTS

- Outreach to PDS
- Workshop with stakeholders
- Policy recommendation to PDS
- Further collaboration

COUNTY COUNCIL

- WCHD reports for Council

Comp Plan

Final decision

STAKEHOLDER & COMMUNITY ENGAGEMENT
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<tr>
<th>Goal/Policy</th>
<th>Current Language:</th>
<th>WCHD Recommends:</th>
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<th>Health Impact:</th>
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<td>8B3</td>
<td>Support efforts and/or organizations trying to achieve agricultural diversity ...</td>
<td>Keep</td>
<td>High</td>
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<td>Retained in 2016 draft.</td>
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<td>Identify and prioritize areas that lack access to healthy food and support grocery store development.</td>
<td>Add new language</td>
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<td>February</td>
<td>Conduct key informant interviews</td>
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<td>Feb-Mar</td>
<td>Continue research and development</td>
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<td>March</td>
<td>Convene stakeholder planning group</td>
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<td>Mar-Apr</td>
<td>Develop training</td>
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<td>Apr/May</td>
<td>Kick off cross-department team with training</td>
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Implementation Timeline: Council

- **Feb-Apr**: Research & create policy analysis tools
- **Feb-June**: Comp Plan reports
- **Apr/May**: Training with department staff
- **May**: Develop screening tool
- **July**: Present to Board of Health
Additional aspects we’ll be exploring:

- Community engagement
- PHAB role
- Evaluation and accountability structure

... Discussion & Feedback?
STATEMENT OF POLICY

Health in All Policies

Policy
Health in All Policies (HiAP) is a change in the systems that determine how policy decisions are made and implemented by local, state, and federal government agencies to ensure that policy decisions have beneficial or neutral impacts on the determinants of health. HiAP strategies are meant to ensure that all policies and services from all sectors have beneficial or neutral impacts on the determinants of health.¹ The National Association of County and City Health Officials (NACCHO) recommends distinct roles and responsibilities for different agencies to advance the use of HiAP.

Federal, state, and local government agencies should conduct the following activities:

• Adopt a HiAP approach in the policy-making process in order to ensure that policies made outside of the health sector have positive or neutral impacts on the determinants of health.
• Provide funding, training, and technical assistance for local health departments to ensure that they can assume a leadership role implementing a HiAP approach at the local level and determine the best strategies for implementing HiAP locally. These investments should be made early in the process because time and funding are necessary to build the capacity to generate cross-agency collaboration before work begins on any program or project development.
• Facilitate cross-sector partnerships through enhanced communication and collaboration between agency leadership.
• Identify and showcase successful examples of cross-agency work, from within and across sectors, and provide models for collaboration.
• Establish a consistent evaluation framework for local health departments to use to identify long-term goals and strategies and ascertain progress toward them over time.

Local health departments should conduct the following activities:

• Foster political will at the decision-maker level and work upstream and downstream to implement a HiAP approach.
• Develop metrics of success to use in negotiating cross-agency collaborative processes and work to translate public health data and terminology for other sectors.
• Take a leadership role to implement HiAP at the local level, including identifying the best strategies for implementing HiAP in the local health department jurisdiction.
• Educate local, state, and federal policymakers about the value of HiAP.
• Develop metrics and milestones to measure the effects of a HiAP approach or policy on health outcomes. Successful initiatives have been able to tie funding to a shared set of metrics for evaluating success.
• Engage a wide variety of partners from the non-health sector whose work influences the social determinants to health to effect improvements in health outcomes through a collective impact model.
• Participate in or lead health impact assessments (HIAs) as a way to influence non-health sector decisions that have health impacts. HIA can be used as a tool to implement a HiAP approach and to educate policymakers.

**Justification**
HiAP is a strategy that assists leaders and policymakers in integrating considerations of health, well-being, and equity during the development, implementation, and evaluation of policies and services. HiAP is a strategy that explicitly addresses decisions made outside the health sector that significantly impact public health. Ensuring that health is considered in the policy formulation process creates opportunities for policy decisions to achieve the non-health agency mission and minimize or improve the policy’s impact on health. Public health literature has identified seven interrelated strategies for incorporating HiAP into decisions and systems: (1) developing and structuring cross-sector relationships; (2) incorporating health into decision-making processes; (3) enhancing workforce capacity; (4) coordinating funding and investments; (5) integrating research, evaluation, and data systems; (6) synchronizing communications and messaging; and (7) implementing accountability structures.

Policy decisions made outside the health sector impact the determinants of health. Researchers and policymakers are increasingly recognizing that health is determined by more than just healthcare. For example, recent research suggests that only 10% of health is determined just by healthcare itself. The determinants of health also include personal, social, economic, and environmental factors that greatly influence risk for injury, disease, and stress. The determinants of health can be divided into individual behavior, genetic predisposition, social factors, healthcare, and environmental exposure. Local health departments have focused increasingly on policymaking either to directly impact population health (e.g., prohibiting trans-fats in prepared foods) or to change the environment to support healthier choices (e.g., tobacco taxes).

Many of the social factors that determine health are largely influenced by measures that are often managed by government sectors other than the public health sector. The social determinants of health, for example, include factors like the quality of schools; socioeconomic conditions, such as poverty; transportation options; public safety; and residential segregation. These factors are managed outside the health sector. For example, transportation options are shaped primarily by Congress (through the transportation reauthorization); federal, state, and local departments of transportation; metropolitan planning organizations; and citizens engaged in the planning process.

The same is true for the physical determinants of health, which include many of the factors addressed by environmental public health practitioners. These factors include the natural
environment, such as plants, weather, or climate change; exposures to toxic substances and hazards; the built environment; worksites, schools, and recreation settings; and housing, homes, and neighborhoods. While public health recognizes the importance of these physical determinants of health, the decision-makers shaping these factors have policy goals that are primarily unrelated to health. As a result, decisions shaping these physical determinants of health are often made without consideration to their health impacts.

HiAP can be used at all levels of government and in the non-government sector. The creation of the National Prevention, Health Promotion, and Public Health Council, formed after the passage of the Affordable Care Act, is a strategy to achieve HiAP at the federal level. The Council consists of federal agency heads that manage all sectors, not just health. These include, for example, the Transportation, Labor, Education, and Justice departments. Chaired by the Surgeon General, the Council has developed the National Prevention Strategy. According to the Strategy, “prevention should be woven into all aspects of our lives, including where and how we live, learn, work and play. Everybody—businesses, educators, health care institutions, government, communities and every single American—has a role in creating a healthier nation.”

The state and local levels can act in multiple ways to ensure participation in HiAP by all agencies. At the local level, the institutionalization of HIAs has been cited as one strategy to achieve HiAP. A National Research Council report on HIAs noted that although many local health departments (e.g., Denver, Baltimore, Seattle, Portland, and Los Angeles) have been leaders or participants in HIAs, only the San Francisco Department of Public Health has incorporated HIA as a routine institutional practice. With adequate funding and support more local health departments might choose to adopt this strategy.

A wide variety of other strategies to achieve HiAP might be more suitable for some jurisdictions. Because HiAP is still in an early stage of development in the United States, local health departments can benefit from the experience of other local health departments, states, and countries that have used different approaches to achieve HiAP. For example, the South Australian Health Department uses a health lens analysis at the policy formulation stage in all government agencies. Their approach is based on the recognition that “traditional HIA is most effective when applied to an existing policy or proposal…with clear plans and proposals. On the other hand, the HiAP health lens operates within a policy development environment where the general policy intent is known but existing draft policies frequently don’t exist.” This approach can be translated into local public health practice. For example, local health departments may train sister agencies about how to assess potential policies using various health lenses. Local health departments can also reframe health lenses to ensure that environmental public health and health equity are in sharp perspective when non-health agencies form new policies. This approach supports the development of healthy public policies and can be supplemented by targeted HIAs (once a clear policy or plan is recommended).

Public health surveillance may be combined with health lens analysis and HIA to create a powerful change in the systems that shape the social and physical environment. For example, a public works department, trained to use a health lens, may be required to inform the LHD when a new policy is being formulated, the outcome of the health lens analysis, and the recommended policy. This enables the LHD sufficient time to educate its community stakeholders, who, in
turn, may recommend conducting an HIA if there is still concern that the recommended policy does not address the community’s concerns about potential health impacts.

Ordinances and executive orders are two other strategies to achieve HiAP. For example, King County’s Ordinance 2010-0509 defines the “just and fair” provisions of its countywide strategic plan by specifying 14 determinants of equity that are clearly determinants of health. Moreover, the ordinance directs the executive to “apply equity and social justice foundational practices to county actions and endeavor to integrate these practices into the county’s strategic, operational and business plans; management and reporting systems for accountability and performance; and budgets in order to eliminate inequities and create opportunities for all people and communities.” In 2014, Mayor Dwight C. Jones of the City of Richmond, Virginia, approved the adoption of Resolution No. 2014-R262 “to adopt the Health in All Policies approach for the City of Richmond in the form of a ‘Policy for HiAP Framework.’” The resolution commits the City of Richmond “incorporate Health Considerations into division-making across all departments and policy areas.” Local health departments can play a role in implementing similar approaches in their jurisdictions by educating legislators and executives about the successful efforts in King County and the City of Richmond.

Local health departments are best positioned to implement HiAP in their jurisdictions. LHDs can choose from a variety of strategies that lead to HiAP, which they can implement as part of public health practice. As an office or administrative unit of government responsible for the health and well-being of a population smaller than a state, HiAP efforts are consistent with the 10 Essential Services and the Operational Definition of a Local Health Department. Given their mission to protect public health, their traditional role as a convener, and connections to communities, local health departments should be the sources of local leadership in HiAP. In addition, HiAP fits with ongoing efforts to improve population health through policy, systems, and environmental change strategies. Local health departments can decide whether and how to implement HiAP as a part of community assessment and planning, thereby making HiAP implementation at the local level a public health practice.

Funding agencies interested in supporting HiAP nationally can provide resources to local health departments to implement HiAP while allowing them flexibility in determining appropriate actions to achieve HiAP. Funding agencies have the opportunity to help implement HiAP approaches nationally through the following actions:

- Funding local health departments to implement HiAP at the local level.
- Providing technical and other assistance to help local health departments implement HiAP locally.
- Offering professional opportunities for local health department practitioners to educate policy-makers at the local, state, and federal levels about HiAP.

Funding requirements should be sufficiently flexible to enable local health departments to pursue HiAP in the way that fits best with the local situation. Funding for improving health lens analysis to ensure adequate incorporation of environmental public health and health equity issues and the latest science could also be valuable. Technical assistance could include case studies of HiAP successes, educational materials about health lens analysis, and local health department staff training about how other sectors make policy decisions. The direct experience of local health
department practitioners implementing HiAP locally can provide valuable lessons for implementing HiAP in other jurisdictions. In addition, it empowers local health department practitioners in their efforts to educate policymakers about the value of implementing HiAP at the state and federal levels. By supporting local health department professional activities involving education and dissemination, funding agencies can have an impact on promoting HiAP on a national scale. Ultimately, such a ground-up approach to HiAP may have the most enduring impact on the determinants of health, since many decisions that shape the environment start at the local level.

References


Record of Action

Proposed by NACCHO Environmental Health Committee
Approved by NACCHO Board of Directors
March 2012
Updated November 2015
BACKGROUND:

The Health Department has successfully implemented the on-site sewage system (OSS) operation and maintenance (O&M) program since the initial Local Management Plan (LMP) was adopted in 2008 (ordinance 2008-015). The LMP guides the department’s development and management activities for all OSS in Whatcom County. The goal of the O&M program is to provide greater assurance that existing OSS are not causing public health problems; by identifying and correcting failing OSS to reduce health hazards, improve water quality, and reopen previously closed shellfish beds.

State and local regulations require all OSS owners to assure a complete O&M evaluation of their septic system annually or every three years based on system type and must be made available at the time of property transfer. The LMP helps prioritize enforcement of the O&M requirement.

We have inventoried all known OSS in our county, and developed an electronic database to track all OSS related activity. Sensitive areas where OSS could pose an increased public health risk have been identified. All OSS owners have been notified about the O&M requirement. Enforcement for non-compliance was initiated in sensitive areas as needed. Numerous OSS have been replaced because failing systems were identified during a required evaluation. We have also provided education and workshops that empower homeowners to conduct their own evaluations.

Last year the state Department of Health (DOH) placed restrictions on shellfish harvesting for part of Portage Bay due to high levels of bacteria. This downgrade led to the designation of Portage Bay as a Marine Recovery Area (resolution 2015-018). There are over 14,000 OSS that have the potential to impact Portage Bay, 8000 of which have never been evaluated.

We have learned much from the implementation of our LMP and have adapted our program procedures to reflect the community’s needs and best address water quality concerns in our sensitive areas. The goal of updating our LMP is to show changes that have already been made and include new changes that will guide our O&M program to further address water quality problems.

IMPORTANCE:

Ensuring proper O&M of septic systems and correction of failing systems is a high priority in the county’s effort to improve water quality. Drayton Harbor and Portage Bay are shellfish growing areas that continue to be challenged with high bacterial levels. High bacteria levels create a public health risk from eating shellfish harvested from these areas. Shellfish closures create a hardship for local commercial, ceremonial, and subsistence harvesters. The Health Department coordinates with Public Works Pollution Identification & Correction (PIC) staff to address these water quality issues. Whatcom County is working with state departments of Health, Agriculture, and Ecology, Whatcom Conservation District, Lummi Natural Resources, and shellfish protection districts to restore waterways and reopen shellfish areas. The Washington Shellfish Initiative also began in 2011 to address these concerns that impact all of Puget Sound.

*Our mission is to lead the community in promoting health and preventing disease.*

2/14/13
Failing septic systems can also impact groundwater and pose a public health hazard for those that are exposed to improperly treated sewage. Proper O&M prevents failures, and can prolong the functionality and lifespan of septic systems. For these reasons, it is the Health Department’s objective to achieve long-term sewage treatment from septic systems and limit the discharge of contaminants to our waterways.

ANALYSIS:

Over 20,000 OSS evaluations have been completed since the initial LMP was adopted by the County Council. Nearly 500 failing OSS were identified and corrected. These could have remained failing had an evaluation not been completed. Over 99% of OSS owners located in sensitive areas (Lake Whatcom and Drayton Harbor) came into compliance with the O&M requirement. DOH added 345 acres to the conditionally approved shellfish growing area in Drayton Harbor. Last year, a recreational shellfish season was also opened for the first time since 1999. We will continue our efforts in Drayton Harbor and Lake Whatcom, while initiating O&M requirements in the Portage Bay-Nooksack River watershed.

REQUESTED ACTION:

The O&M program is fully funded and has been well supported by the Executive and County Council. We have been able to facilitate O&M of septic systems, educate homeowners, and correct failing systems in our most sensitive areas. The O&M program has changed since the initial LMP was adopted, and continues to adapt and evolve to meet the community’s needs and protect our valuable natural resources. The following is a summary of the proposed revisions:

- Updated records, maps, database improvements, and attachments.
- Changed homeowner evaluation requirement to be consistent with WCC 24.05.160.
- Designated sensitive areas (Lake Whatcom and Portage Bay Marine Recovery Area).
- Coordination with Planning & Development and Public Works PIC program.
- O&M follow-up and enforcement activities.

It is our goal to assure the evaluation of all 14,000 OSS in the Portage Bay-Nooksack River watershed by the end of 2018 while continuing routine monitoring in Drayton Harbor and Lake Whatcom. In order to meet state and local goals for water quality, the Health Department requests that the Health Board continue to support the O&M program by adopting the proposed update to our OSS Local Management Plan.

Attachments

1. Draft LMP (Clean Version)
2. PowerPoint Presentation
Attachment A

On-site Sewage System Local Management Plan of the Whatcom County Health Department

Whatcom County Health Department
Environmental Health Division
509 Girard Street
Bellingham, WA 98225
(360) 778-6000

www.whatcomcounty.us
# Whatcom County Health Department On-site Sewage System
## Local Management Plan

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Part 1 - Database Enhancement

Summary: This section of the plan encompasses the current on-site sewage system (OSS) database environment. The description of fields within the database is provided, including a summary of how new OSS activities are tracked. There are approximately 28,000 OSS records in the OSS database, and the confidence of this data has increased as existing OSS are evaluated. After each OSS evaluation, the O&M Specialist or certified homeowner submits a Report of System Status (ROSS) to the Whatcom County Health Department (WCHD). This report contains information about the current status of the OSS including whether it is functioning satisfactorily, needs maintenance, or is failing. In addition, previously unknown OSS have been captured in the database as OSS Operation and Maintenance (O&M) regulations have been implemented.

A. Inventory

1. Current Database

   The current database, developed in house by Whatcom County Health Department (WCHD), is known as Whatcom County Maintenance and Operation (WHAMO). The database platform is Microsoft Access and was originally created by manual data entry of existing paper records. The pertinent fields recorded within the database include:
   a) Site ID #: a unique identifying # assigned to each individual OSS
   b) OSS system type: conventional gravity, pressure distribution, etc.
   c) Site Status: A code assigned to the OSS based on how the OSS has been documented. Example of OSS documentation would include a permit, complaint investigation, septic tank pump out or survey.
   d) Building value: from the county assessor’s database
   e) Tax parcel #: assigned by the assessor
   f) Site address: the physical address of the house utilizing the OSS
   g) Property owner address
   h) Plat file (if one exists)
   i) Water district (if one exists)
   j) Watershed of parcel
   k) Year residence was built
   l) Total assessed value of house and property
   m) Legal description of property
   n) Years since service: the # of years since the last septic tank pump out
   o) Years since permit: the # of years since WCHD issued the OSS permit
   p) Estimated latitude and longitude of the OSS

   (Note: List of acronyms, Attachment A.)
The software interacts with both the County Assessor and GIS data for property and location information related to the OSS and is updated daily. Our in-house data specialist can modify and export data in a relatively short time frame due to the OSS records being centrally connected. Data records can be exported to any common format. In addition, data can be converted to different formats, depending on the application needed. OSS data can be plotted in the creation of GIS maps.

There is a backup procedure to ensure data is not lost. A "convenience" backup is made of the data every night. Rolling copies of the previous 30 days of work are maintained locally.

Formal procedures for backup and recovery of the database, in case of a catastrophic loss to the active data, are performed by the Whatcom County Information Technology Department nightly.

2. OSS Activities

Each OSS record created is associated with past and/or new activity related to the OSS. Activities on record include:

a) OSS application
b) OSS permit
c) Septic tank pump out
d) OSS evaluation

These records are connected to digital copies of the original paper documents, if available.

3. Number/Age of OSS Records

The number of estimated OSS in Whatcom County is approximately 30,000 based on two different models: Developed parcels in the county, minus sewer customers and the 2000 Census household data, minus sewer customers. For assumed systems without a permit history, age of the septic system can be approximated from assessor’s data using the age of the structure itself.

Currently, a “known” OSS has a record indicating a WCHD permit, OSS evaluation inspection, septic tank pumping activity, field verification, or GIS desk review. The number of “known” OSS in the WCHD OSS database is 28,103. When an OSS evaluation is completed, a Report of System Status (ROSS) is entered into the OSS database for that system. This reporting process is described in greater detail below in Section B. Records Maintenance. Through implementation of Operation and Maintenance (O&M) requirements, OSS without current records have and will continue to become accounted for.
Ninety percent of the OSS in the database are categorized with a system “type”. Generic system “types” include conventional gravity, pressure mound, etc. The final inspection date on the permit is the determining factor for age of the system. The earliest OSS installation recorded in the database is February 21, 1966.

4. Adding and Updating OSS Records

WHAMO is currently updated through the OSS permitting process, inspections of systems as a result of complaints, pumper reports, and new O&M evaluation reporting procedures. In this process, the paper records are scanned into the database after the pertinent data is entered. OSS permit documents will continue to be scanned into the database.

An on-line data entry program is currently being considered. O&M evaluations and pumper reports would be entered directly into the database through an on-line web interface. Data entered on-line will be stored in WHAMO.

5. O&M Implementation Plan

Initially, WCHD utilized county tax parcel maps to develop mailing lists of OSS owners and owners of parcels not serviced by sewer to implement O&M regulations. Aerial photography overlay maps have been examined to ensure that suspect residences/structures not previously identified as OSS sites are investigated. Majority of existing OSS in Whatcom County have been identified. Currently WCHD develops watershed specific mailing lists based on existing data of active OSS.

Property owners have been notified through a mailout of their regulatory requirement to arrange for an evaluation of their OSS. An education operation and maintenance flyer and a list of licensed O&M specialists have accompanied each O&M notification letter. Property owners will continue to be notified with this format.

O&M notifications started in the Drayton Harbor watershed, a designated Marine Recovery Area, followed by the Lake Whatcom watershed an identified sensitive area. Subsequently, all other watersheds along marine waters received O&M notifications. Notification activities progressed eastward from there. By 2014, all known OSS owners within Whatcom County were mailed an O&M notification.

6. Site Status Confidence

The OSS database provides valuable information about OSS in Whatcom County. The database continues to improve as sites are identified and verified, which has increased the quality and reliability of the data.
Within the OSS database, all OSS are assigned a site status. The status is based on the amount and quality of information that exists for that OSS. For example, an OSS with a site status of A1 has a permit on file, with a record of a WCHD final inspection. Sixty six percent of the “known” OSS have a status of A1. Site status code B1 signifies that an OSS permit was approved for the site, but there is no record of an OSS final inspection. Code B2 signifies there is no current OSS record, but there is evidence of a building on the property. A site will be assigned an N1 status if WCHD field observations determine that there is a structure on site, but no plumbing. Currently, there are no N1 sites in the OSS database; however, such sites will be identified during efforts to find unknown OSS. A complete list of Site Status Codes can be found in Attachment B.

WCHD has great confidence in all sites with an A status. As evaluations are submitted the OSS inventory is updated.

As existing OSS receive their required evaluations, the quality and quantity of the information associated with them will improve. As a result, the site status within the OSS database will improve. In some cases, due to an OSS evaluation, the site status can improve from B to A.

7. System Type Confidence

Having an accurate system type designation for each OSS is important information, as it is the determining factor in required O&M evaluation frequency.

Current WCHD permits and ROSS forms clearly state the OSS system type.

8. OSS with No Documentation

When an evaluation is submitted the OSS database will be updated and previously unknown OSS will be documented.

B. Operation and Monitoring – Record Maintenance

1. Report of System Status (ROSS)

Effective April 2, 2007, as per Whatcom County Code 24.05.160 Operation and Maintenance, O&M evaluations are required:

a) At the time of property transfer, unless a current ROSS performed by a licensed O&M Specialist is already on file with WCHD.

b) Once every three years for conventional gravity systems: systems consisting of a septic tank and drain field only.

c) Annually for all other systems, unless more frequent as specified by the health officer.
The evaluation can be performed by a licensed O&M specialist or a homeowner depending on the system type. Homeowners can perform their own OSS evaluation as allowed by WCC 24.05.160 after certification is completed through on-line homeowner septic training (HOST) or WCHD sponsored homeowner training workshops.

In performing O&M evaluations, the O&M specialists and/or certified homeowners utilize a checklist to ensure that all OSS components are examined and tested. Homeowners complete the Homeowner Report of System Status (HROSS). The HROSS (Attachment D) includes a checklist with information on OSS type, operational status, permit status, septic tank(s) and drainfield. Homeowners are required to submit a photo(s) of the uncovered septic tank along with the completed HROSS.

O&M Specialists complete the Report of System Status (ROSS). The ROSS (Attachment C) includes a checklist with specific information on tanks, drainfield, flow and dye test results, pressure test height and proprietary treatment device information, and description of maintenance items. The results of the O&M evaluation and completed checklist are summarized on page one of the ROSS. The cover page contains the Operational Status of the OSS as Satisfactory, Maintenance needed, Maintenance Needed and Completed, or Failure. Other information contained is site address, tax parcel number, OSS Type, and Permit Status. If a permit is not on file with the WCHD or site conditions have changed, the O&M specialist or certified homeowner is required to submit a site sketch of the parcel, including location of all structures and components for the initial evaluation. The last page of the ROSS is a Maintenance Addendum in which the O&M Specialist details maintenance items needed and maintenance completed.

Completed HROSS and ROSS checklists are to be submitted to WCHD in a timely manner. The ROSS information is entered into the database by the O&M clerical staff and the checklist is scanned. The ROSS information is reviewed by WCHD O&M staff and those that indicate “maintenance needed” or “failure” are followed up on (Attachment E). The ROSS checklist will be updated as needed in order to capture the best information about the operational status of an OSS. As on-line options are developed, O&M Specialists and homeowners will have the ability to submit ROSS information electronically and improve staff efficiency.

2. Pumper Records

Pumper report forms (Attachment F) are submitted by licensed pumpers on a monthly basis. Data includes OSS address, tax parcel number, date of pump service, name of company, tank volume, gallons pumped, disposal facility and any comments relating to observations or minimal repair performed as allowed.

Information included on the Pumper report form is generally used as an accountability method to compare volume of septage pumped with volume received.
at the treatment plant or at one of the land application sites. However, it can also be used as a crosscheck with corresponding ROSS information for minor maintenance that may have been performed on an OSS i.e. septic tank baffle repair, or condition of tank.

The implementation of an on-line O&M reporting application may also create an opportunity to improve pumping reports. Licensed pumpers may be expected to submit individual pumping reports for each pumping activity, including more detailed information about the pumping activity such solids accumulation measurements and justification for tank pumping.

WCHD will also begin permitting licensed pumpers that have intermediate septage holding tanks for storage prior to final disposal as required in WCC 24.05.200. Permit requirements will include site/tank inspections and annual reports for volume of septage pumped and stored on-site, removed for disposal, septage remaining in storage tanks, and disposal location.

C. C. Resources

WCHD currently has an in house Data Specialist who manages the database, a clerk who provides essential data entry and Environmental Health Specialists (EHS) who reviews the data and proposes changes as necessary to accomplish the goal of the program.

Proposed improvements to the database could include electronic submission of ROSS documents. Additional software and hardware may be needed to accomplish this.
Part 2 - Identification of Sensitive Areas

Summary: Part 2 of the plan provides for a general description of the natural and human environments of Whatcom County. The main focus of this section, as per WCC 24.05.050 is to identify “any areas where OSS could pose an increased public health risk.” WA State DOH, in WAC 246-272A-0015 directs WCHD to consider the following ten categories in this task:

1. Shellfish protection districts or shellfish growing areas
2. Sole source aquifers designated by the United States Environmental Protection Agency (EPA)
3. Areas in which aquifers used for potable water as designated under the Washington State Growth Management Act, chapter 36.70A RCW are critically impacted by recharge
4. Designated wellhead protection areas for Group A public water systems
5. Up-gradient areas directly influencing water recreation facilities designated for swimming in natural waters with artificial boundaries within the waters as described by the Water Recreation Facilities Act, chapter 70.90 RCW
6. Areas designated by the Department of Ecology as special protection areas under WAC 173-200-090, Water quality standards for ground waters of the state of Washington
7. Wetland areas under the production of crops for human consumption
8. Frequently flooded areas including areas delineated by the Federal Emergency Management Agency and or as designated under the Washington State Growth Management Act, chapter 36.70A RCW;
9. Areas where nitrogen has been identified as a contaminant of concern
10. Other areas designated by the local health officer such as Marine Recovery Areas

WCHD currently has four sensitive areas: the Drayton Harbor Watershed (DHW) and Portage Bay-Nooksack River Watershed which have been designated as a Marine Recovery Area (MRA), the Lake Whatcom Watershed, and the Shoreline Management Area (SMA).

The Drayton Harbor Watershed and Portage Bay-Nooksack River Watershed are designated sensitive areas because both meet two of the three criteria set forth by DOH for MRA designation;
1) It contains shellfish growing areas that have been threatened or downgraded by DOH,
2) Two tributaries are listed by the Department of Ecology under section 303(d) of the federal Clean Water Act for low dissolved oxygen or fecal coliform.

As a side note, the majority of the DHW is also within the Drayton Harbor Shellfish Protection District. The Nooksack River Watershed drains into Portage Bay. The majority of the Nooksack River Watershed is also within the Portage Bay Shellfish Protection District.

The Lake Whatcom Watershed (LWW) is designated a sensitive area because it contains a drinking water reservoir (Lake Whatcom) that serves over 100,000 people.

The SMA is designated a sensitive area because failing OSS within this area would increase the likelihood that untreated sewage may contaminate adjacent water bodies.
A. Description of the Jurisdictional Environment

1. Natural Environments

Whatcom County, located in the northwest corner of Washington State, is bordered by marine waters to the West, Okanogan County to the East, Skagit County to the South, and Canada to the North. It encompasses 2,182 square miles. The eastern portion of the county is mountainous (North Cascades Mountain Range), with nearly two thirds of the County’s total land area lying within the Mount Baker National Forest. The western third of the county is made up of the foothills, relatively flat lowlands and marine waters. Elevations range from sea level in the west to thousands of feet above sea level in the eastern mountains. Mount Baker, a dormant volcano, is the most prominent peak of the North Cascade range, with an elevation of 10,788 feet. The Nooksack River is the major county waterway flowing west from the headwaters at Mount Baker, meandering through the lowlands and terminating in North Bellingham Bay. As shown in Figure 1, Whatcom County encompasses Water Resource Inventory Area 1 (WRIA 1) and includes (26) twenty-six watershed management areas. There are approximately 136 miles of marine shoreline and two islands: Lummi and Eliza.

Figure 1 - Drainage Area Map of Whatcom County
2. Human Environments

Whatcom County, according to 2005 data, has a population of approximately 180,800. With a land area of 2,182 square miles, there are approximately 85.3 persons per square mile. The western portion of the county is its most populous, including the incorporated municipalities of Bellingham, Blaine, Everson, Ferndale, Lynden, Nooksack and Sumas (Figure 2). This area encompasses 755 square miles.

Figure 2 – Western Whatcom County

The majority of non-federal land use distribution in unincorporated Whatcom County is dedicated to forestry and agriculture, at a combined rate of nearly 75%. Eleven percent of the land use is dedicated for residential uses. Review of the recent census information indicated there are 87,000 housing units in Whatcom County and approximately 30,000 of these units (35%) utilize OSS for wastewater treatment. The average household size is 2.51 and average family size is 3.06, as per the 2000 Census. The current median value for a home is $260,000. The median family income is $44,284; per capita income is $24,896 (2005 data).

Drinking water supplies for the majority of the rural population consist of individual wells and small Group B public water systems (3 to 14 connections). Larger, Group A public water systems (15 or more connections) are regulated by the Washington State Department of Health (DOH). Currently, there are 182 Group A and 236 Group B water systems in Whatcom County. The county’s largest urban population, the city of Bellingham, relies on Lake Whatcom and the middle fork of the Nooksack River (via a diversion dam) for drinking water.
B. Designating sensitive areas

Failing OSS pose a threat to public health and the environment. Hazards include the threat of human exposure to untreated sewage, contamination of drinking water supplies, degradation of surface and groundwater resources and contamination of shellfish resources. Human consumption of shellfish contaminated by failing OSS can lead to sickness and even death.

WCC 24.05.050 requires WCHD, within its Local Management Plan (Plan), to identify any sensitive areas where an OSS that is not properly sited, designed, installed, operated or maintained can pose an increased risk to public health. After consideration of these areas, the county-wide Shoreline Management Area, the Lake Whatcom Watershed, the Portage Bay-Nooksack River Watershed, and the Drayton Harbor Watershed have been designated sensitive areas by WCHD.

1. Sensitive areas designated by WCHD:

   a) **Shoreline Management Area**

      The Shoreline Management Program regulates all streams with a mean average flow of 20 cubic feet per second, all lakes over 20 acres in size, all marine shorelines, all associated wetlands and floodways, and has jurisdiction over upland areas within 200 feet of the Ordinary High Water Mark (OHWM) of the shoreline. The Shoreline Management Area (SMA) is shown in Figure 3.

      ![Figure 3 - Shoreline Management Areas](image-url)
For the purposes of this Plan, WCHD considers the SMA to be a sensitive area because:

i) Failing OSS within this zone increase the likelihood that untreated sewage will contaminate adjacent water bodies. Any resulting surface water degradation creates a risk of human exposure to untreated sewage, contamination of drinking water supplies and contamination of shellfish resources.

ii) Identifying and repairing failing OSS in this 200 foot zone will have the most immediate impact addressing potential OSS contamination in adjoining water bodies.

iii) The SMA can be accurately plotted using GIS mapping. Administratively, the SMA is a well defined area to implement and track OSS O&M requirements.

b) Lake Whatcom Watershed

Lake Whatcom is the drinking water source for over 100,000 people living in Whatcom County, half the county’s population. Lake Whatcom provides drinking water for the City of Bellingham, Lake Whatcom Water and Sewer District, several smaller water districts and associations, and a few hundred homes that have water rights to draw water directly from the lake for private use. The City of Bellingham’s Water Treatment Plant has a capacity of 24 million gallons a day of treated water.

Figure 4 – Lake Whatcom Watershed

The population of the watershed is approximately 15,000 people or 6,500 homes. 751 homes are served by an on-site sewage system. In 1998, eleven of the thirty six tributaries that feed the Lake were listed as impaired
waterbodies because they failed to meet state water quality standards due to high fecal coliform. WCHD has taken a proactive role monitoring and enforcing OSS O&M in the watershed since the late 1990s.

c) Marine Recovery Areas: Drayton Harbor Watershed and Portage Bay-Nooksack River Watershed

RCW 70.118A requires that the local health officer propose a marine recovery area (MRA) for those land areas where existing on-site sewage disposal systems are a significant factor contributing to concerns associated with:

i) Shellfish growing areas that have been threatened or downgraded by the Department of Health;

ii) Marine waters that are listed by the Department of Ecology under section 303(d) of the federal Clean Water Act for low dissolved oxygen or fecal coliform; or

iii) Marine waters where nitrogen has been identified as a contaminant of concern by the local health officer.

WCHD’s MRA on-site strategy will be further discussed in Part 4 of this plan.

Most of Drayton Harbor is classified as prohibited for shellfish harvesting by the DOH, based on their on-going water quality monitoring program. Figure 4 represents the current Drayton Harbor Shellfish Growing Area, designated as conditionally approved by DOH. Part of Drayton Harbor was recently upgraded in classification from Prohibited to Conditionally Approved due to improvements in marine water quality. This is the area around marine sampling stations 313, 314, and 315.

Historically, Drayton Harbor supported productive shellfish beds. The first commercial oyster farm began operations there over a hundred years ago. In the early 1990’s, the Lummi Nation annually harvested 30,000 pounds of clams from Drayton Harbor. The DOH initially downgraded a portion of Drayton Harbor’s commercial shellfish harvesting area in 1994 based on water quality data and sewage disposal conditions in the area. Since the initial downgrade, citizens, businesses, tribes and local agencies have been involved in on-going efforts to address the probable sources of bacterial pollution within the bay. Those efforts have been summarized below:


ii) The 1999 Whatcom County Comprehensive Water Resource Comprehensive plan, prepared by the County Executive’s Office,
identifies failing OSS within Drayton Harbor Watershed as a potential source of non-point pollution to the Drayton Harbor Watershed. The plan calls for the establishment of a county-wide OSS O&M program.

iii) The Drayton Harbor Watershed Management Plan (DHWMP) was completed in 1995 with Washington State Centennial Clean Water Funds by the Drayton Harbor Watershed Management Committee. The plan identified several potential non-point pollution sources in the Drayton Harbor watershed which would require additional attention in order to improve Drayton Harbor’s existing water quality. One potential non-point source identified in the plan was failing OSS.

iv) An OSS survey of 250 OSS conducted in Drayton Harbor in 1997 by WCHD found a failure rate of 20%.

Figure 5 – Drayton Harbor Shellfish Growing Area

Despite efforts to locate and repair failing OSS and other non-point sources of bacterial contamination, the DOH currently classifies most of Drayton Harbor as prohibited for shellfish harvesting. However, the size of the Conditionally Approved area has increased due to improving trends in water quality. Marine waters near the mouth of Drayton Harbor, as well as segments of Dakota and California Creeks are on the US EPA 303D list for fecal coliform. Dakota and California Creeks are the major freshwater tributaries of Drayton Harbor.
Within a watershed, the contributing water courses of the basin all drain to a common receiving water body. Therefore, the surface water runoff to Dakota Creek, California Creek, un-named creeks, ditches and swales within the Drayton Harbor watershed all contribute to the water quality of Drayton Harbor.

Failing OSS may be a contributor to non-point source of pollution related to surface water degradation within the entire Drayton Harbor watershed. Therefore, the Drayton Harbor watershed will continue to be designated a Marine Recovery Area.

Figure 6 – Portage Bay Shellfish Growing Area

The Nooksack River Watershed drains an area of the Cascade Range around Mount Baker, runs through much of Whatcom County before emptying into Bellingham Bay. Portage Bay is located in western Bellingham Bay, between the Lummi Peninsula and Portage Island. The Portage Bay shellfish growing area lies approximately three and a half miles to the southwest of the mouth of the Nooksack River. The bay supports commercial, ceremonial, and subsistence shellfish harvest for members of the Lummi Nation.

The Nooksack River Watershed contains the following sub-watersheds: Silver/Nooksack Channel & Delta, Ten Mile, Lower Mainstem Nooksack, Lynden North, Upper Mainstem Nooksack, South Fork, Middle Fork, and North Fork. Although the Lummi Peninsula and Bellingham Bay watersheds do not
drain into the Nooksack River, OSS located in these areas may also impact water quality in Portage Bay.

In 1996, a 60 acre portion of the shellfish growing area was voluntarily closed at the request of DOH due to water quality concerns. In 1998 DOH downgraded Portage Bay to prohibited and restricted due to deteriorating water quality. The Portage Bay Shellfish Protection District was formed soon after the downgraded reclassification. The Portage Bay Initial Closure Response Strategy was developed in 1998 by a team of federal, tribal, state, and local representatives. It focused on reducing fecal coliform bacteria from agriculture, on-site septic system, sewage treatment plant, and stormwater runoff sources.

In 2003 and 2006 DOH upgraded portions of Portage Bay to approved. Despite the water quality improvement that led to the reopening of shellfish harvesting, bacteria levels began to increase again. As a result in March 2015, DOH changed the classification of nearly 500 of the 1,300 commercial shellfish harvesting acres in the bay from approved to conditionally approved. Harvesting in the conditionally approved area will be closed each year from April through June and again from October through December.

The Marine Recovery Area designation was acknowledged by County Council Resolution 2015-018 in May 2015. The Marine Recovery Area includes the Portage Bay Shellfish Protection District which encompasses all drainages of the Nooksack River. The Nooksack River Watershed is approximately 826 square miles. Bacteria levels in many of the tributaries feeding into the Nooksack River continue to exceed water quality standards for fecal coliform bacteria, and are on the US EPA 303d list for fecal coliform.

Birch Bay and Lummi Bay have no restrictions for shellfish harvesting. Historically, shellfish were also harvested from North Chuckanut Bay, however, DOH closed these beds in the mid 1990’s due to poor water quality from undetermined non-point sources. DOH has not monitored North Chuckanut Bay since that time.

Despite the fact that some Whatcom County shellfish growing areas have not been designated as MRAs or sensitive areas, all shellfish growing areas will receive an extra measure of protection through implementation of the countywide SMA designation. In addition, priority areas that have been identified by the Whatcom County Pollution Identification and Correction (PIC) program based on water quality data that shows high fecal coliform bacteria, will also receive protection as if it were in a designated sensitive area.

C. Coordination with planning entities within the jurisdiction.

Currently WCHD coordinates with Whatcom County Planning and Development Services (PDS) by participating in Technical Review Committee venues for land use
subdivision reviews. In addition, a dedicated 0.5 FTE EHS maintains an office at the combined Permit Center daily to review building permit applications and other land development proposals which utilize OSS. This overview ensures that land development proposals and proposed building projects comply with WCHD rules and regulations. A current O&M evaluation is required at the time of building/land use permit application if the site’s OSS is not in compliance with O&M regulations. The EHS may require that the O&M evaluation be performed by a licensed O&M Specialist.

In designating sensitive areas for the purpose of this plan, WCHD has conferred with PDS to ensure consistency with the Whatcom County Critical Areas Ordinance and the Whatcom County Comprehensive Plan.

D. State Environmental Policy Act Review

A SEPA checklist for the local management plan was completed and reviewed under case number SEP2007-00180 in accordance with WAC 197-11-315 and a threshold determination made. No significant adverse environmental impacts will occur from this action therefore in accordance with WAC 197-11-340; a determination of nonsignificance was made.

A SEPA checklist was completed and submitted to PDS for the 2016 Plan update.
Part 3 - Operation, Monitoring and Maintenance in Sensitive Areas

Summary: Operation and maintenance (O&M) requirements will continue to be implemented in Drayton Harbor Watershed, Lake Whatcom Watershed, and shoreline management areas. Initial implementation in the Portage Bay-Nooksack River Watershed commenced on August 2015, and will be completed by the end of 2018.

At the time of OSS permit issuance, homeowners are provided with information regarding proper OSS operation and maintenance.

A Report of System Status (ROSS) document must be filed with WCHD upon completion of an evaluation. Evaluations may be performed by either an O&M specialist or certified homeowner in accordance with WCC 24.05.160.

Enforcement action is initiated when a ROSS indicates a system is failing after the condition is verified through a WCHD site visit. ROSS forms indicating maintenance needed may be followed up by a WCHD letter to the O&M Specialist or property owner.

A. Current O&M Requirements common to all areas throughout Whatcom County

1. Notification at Time of OSS Permit Issuance

At the time of OSS permit issuance, the applicant is provided an O&M information packet that includes:
   a) A WCHD publication entitled “7 Ways to Save Thousands of Dollars in Septic System Repairs”
   b) Lists of WCHD licensed O&M specialists, pumpers, designers and installers.
   c) A WCHD publication entitled “Take Care of Your Septic System and Well Water”.
   d) An informational flier with specific maintenance information related to their system type, i.e.: conventional gravity, pressure mound, etc.

With this information, the OSS owner is made aware of their obligation to properly operate and maintain their OSS.

2. Proprietary Treatment Devices

Maintenance providers for proprietary treatment devices listed on the Washington State Department of Health list of registered on site treatment and distribution products are required to submit a ROSS to WCHD when performing an evaluation of the entire OSS. Otherwise an addendum to the ROSS completed by a licensed O&M Specialist must also be submitted detailing the outcomes of the proprietary treatment O&M. O&M specialists must receive training to evaluate and perform maintenance on proprietary treatment devices.
3. **Report of System Status**

WCC 24.05 requires a complete evaluation of the OSS by a licensed O&M specialist or certified homeowner to determine functionality and maintenance needs. In conjunction with the evaluation, a Report of System Status (ROSS) form must be completed and submitted in a timely manner to WCHD. A ROSS must be filed:

- a) At least once every three years for all systems consisting solely of a septic tank and gravity drainfield.
- b) Annually for all other systems unless more frequent inspections are specified by WCHD.
- c) At the time of property transfer, unless a current ROSS performed by a licensed O&M specialist is already on file with WCHD.

The completed ROSS form indicates whether the OSS is functioning satisfactory, maintenance is needed, or is failing.

4. **Homeowner OSS Evaluations**

Homeowners may choose to become certified to perform their own OSS evaluations, depending on OSS system type, in accordance with the frequency outlined in WCC 24.05.160. A description of this certification process can be found in Part 5 Planned Education.

Homeowners are not allowed to perform evaluations for the following:
- OSS technologies listed as proprietary on the Washington State DOH list;
- Community drainfields;
- Nonconforming repair systems that replaced a failing OSS;
- OSS serving food service establishments; or
- Property transfers.

Homeowners are required to complete the homeowner report of system status checklist (HROSS) and submit it with a photo(s) of the uncovered septic tank in a timely manner. At the time of HROSS submittal, the individual performing the evaluation certifies accuracy and agrees to allow WCHD follow-up. Follow-up involves phone contact and field verification by O&M staff.

5. **Septage Reporting**

Licensed septic tank pumpers in Whatcom County submit monthly “Pumper Report” forms which include OSS address, tax parcel #, tank volume, tank size, condition of the tank, and the septage disposal location. (Attachment F). Pumping reports for each pumping event may be required in the future.

**B. Sensitive area O&M requirements**

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Operations and maintenance implementation began in the Drayton Harbor Watershed and the Lake Whatcom Watershed. All Lake Whatcom Watershed OSS owners, and over 99% of OSS owners in the Drayton Harbor Watershed notified by WCHD complied with O&M requirements. O&M requirement implementation has commenced in the Portage Bay Marine Recovery Area. Sub-basins within the Nooksack River Watershed will be prioritized based on fecal coliform water quality data collected by Whatcom County Public Works Pollution Identification and Correction.

C. Pollution Identification and Correction

Whatcom County Public Works (WCPW) initiated an enhanced Pollution Identification and Correction (PIC) program in 2014. WCPW prepares an annual water quality review to identify high priority drainages for the PIC program. Only 20% of the stations currently monitored meet water quality standards for fecal coliform. The PIC program was created to help implement community solutions for clean water by collecting water quality data and making direct landowner contacts to identify and address sources of bacteria.

The PIC program is supported by a number of local efforts. In June 2014, the Whatcom County Council adopted the 2013 Portage Bay Shellfish Recovery Plan to establish a locally-driven PIC program. The Council also passed the Water Action Plan resolution in 2014. This action prompted recommendations from local shellfish protection district advisory committees to use water quality data and direct landowner contact to identify and address sources of pollution. The WRIA 1 Joint Boards identified the PIC program as a near-term action for the Puget Sound Action Plan. The PIC program identifies and prioritizes focus areas based on water quality monitoring, proximity to waterways, water quality hot spots, agricultural activities, and status of OSS evaluations. The focus for water quality improvements is on non-point source sources such as agriculture operations, small farms, OSS, domestic pets, and wildlife. For properties that have livestock, WCPW and the Whatcom Conservation District work directly with landowners to provide technical and financial assistance to implement water quality improvement projects. A compliance backstop is available for water quality violations if voluntary compliance is not achieved.

When high bacterial counts are encountered during routine water quality monitoring, the PIC program surveys the area to identify the pollution source. Properties served by an OSS that are identified as potential sources of bacterial pollution are referred to WCHD for further investigation. WCHD will survey sites and implement O&M requirements following the standard process and timeline for designated sensitive areas.

In addition to the local PIC program, the Governor’s Shellfish Initiative resulted in the development of the Whatcom Clean Water Program (WCWP). WCWP is a state led effort, administered by Department of Ecology staff, that focuses on the Portage Bay Shellfish Protection District (Lower Nooksack) to identify and correct sources of fecal coliform pollution to surface waters. O&M staff surveys sites that are referred to us
based on indications that the source of bacterial pollution could be from an OSS. WCHD will implement O&M requirements standard for designated sensitive areas if voluntary surveys are not feasible.

D. Enforcement activities

1. Report of System Status Tracking

As OSS evaluations are received, information will be entered into the database. Tracking and enforcement of O&M requirements have been completed in the Drayton Harbor Watershed and Lake Whatcom Watershed. Routine tracking and enforcement will continue in these watersheds as O&M requirements are initiated in other sensitive areas.

   a) Failing OSS

   When an evaluation indicates a failing OSS, WCHD will perform a site visit to confirm that the OSS is failing. WCHD will contact the homeowner via certified mail and provide protocol for repair/replacement of the OSS in accordance with WCHD OSS Enforcement Policy. WCHD places a high priority on the review of OSS repair/replacement applications. In addition, the construction inspection of the repair/replacement is also typically done within 1 working day of notification. This allows homeowners to resolve the repair/replacement of failing OSS in a timely manner.

   b) Financial Assistance for Homeowners

   WCHD has researched funding opportunities available to assist low income and senior home owners to repair failing OSS. WCHD applied for State Revolving Funds through the Washington State Department of Ecology and was awarded 1.5 million dollars in 2011. WCHD has a contract with the Industrial Credit Union to administer a low interest loan program and with the Opportunity Council to administer a deferred loan program for those that have been denied a low interest loan. Contracts with Industrial Credit Union and Opportunity Council end June 2016. WCHD will then participate in a regional loan program made up of other Puget Sound local health jurisdictions in which Ecology will be the lead administrative agency.

2. Enforcement Activities

   a) Auditing of O&M Specialists and Certified Homeowners

   When an evaluation indicates the OSS system is functioning satisfactorily, no enforcement follow up is needed. However, random
QA/QC audits of O&M specialists and certified homeowners will be initiated, in order to verify that evaluations are being performed as required.

WCHD will accompany O&M specialists during evaluations and conduct follow-up site visits after ROSS reports have been submitted to confirm that the ROSS checklist is accurate and applied appropriately. In addition to confirming accuracy, the goal of this auditing process is to ensure that evaluations are being conducted in a consistent manner by all O&M specialists county-wide. By performing both accompanied and follow-up site visits, staff will be able to gather a broad representation for the quality of evaluations being completed.

WCHD will also evaluate home owner ROSS submissions to confirm that the information submitted is correct. During this QA/QC process, staff will have an opportunity to educate homeowners and provide value added technical assistance.

Enforcement action will be taken against licensed O&M specialists and certified home owners if there has been a finding of incompetency, negligence, willful misrepresentation or failure to comply with WCC 24.05 or other applicable laws, rules, or regulations. Enforcement action can include ROSS rejection, administrative hearings, license suspension or revocation of certified status, and civil penalties. WCHD will develop policies and procedures that will guide the department’s QA/QC auditing activities and enforcement actions.

b) OSS with Maintenance Needed

When an evaluation indicates maintenance is needed, a desk review of the ROSS will be completed by WCHD staff. This will ensure that OSS with critical maintenance needs are identified, including systems that may actually be failing, and provide further QA/QC data for work submitted by O&M Specialists and homeowners.

c) Food Service Establishments

WCC 24.05 currently requires annual inspections of OSS serving food service establishments and may require pumping as needed. WCHD will require food service establishments with OSS to have a current ROSS filed with WCHD before their operating permit can be renewed. Food service establishments that do not have a current ROSS will be notified of their regulatory requirement. The enforcement process outlined below in section (f) may also be implemented to encourage compliance. Operating permit renewal may be denied for food service establishments that have outstanding critical maintenance needed items.
Food service establishments that sell prepackaged grocery only and do not prepare any food may be exempt from the annual requirement if they meet the following conditions:

- No complex food preparation activity connected to the OSS;
- OSS was installed with a valid WCHD permit and received final approval; and
- OSS consists solely of a septic tank and gravity subsurface soil absorption system (SSAS), meeting the criteria for every three year evaluation frequency if not a food establishment.

d) O&M of Proprietary Treatment Units

O&M Specialists must receive training by the manufacturer or distributor of a proprietary treatment product (PTP) prior to providing any monitoring or maintenance of a proprietary unit. Maintenance providers for proprietary treatment devices listed on the Washington State Department of Health list of registered on site treatment and distribution products are required to submit a ROSS to WCHD when performing an evaluation of the entire OSS. Otherwise an addendum to the ROSS completed by a licensed O&M Specialist must also be submitted by the PTP service provider detailing the outcomes of the PTP O&M.

e) Community drainfields

Community OSS can also pose an increased public health risk regardless of location or geographical area. Existing community OSS are typically larger systems with higher sewage flows coming from multiple sources, and shared ownership. Shared ownership and off-site location of OSS may be factors that inhibit the operation and maintenance of community systems. WCC 24.05 currently does not allow homeowner evaluation of community drainfields due to the increased risk. Community drainfields that do not have a current ROSS will be notified of their regulatory requirement. The enforcement process outlined below in section (f) may be implemented to encourage compliance.

f) Enforcement Process

The WCHD will do everything possible to gain compliance through voluntary means, including an education program that informs OSS owners of the benefits of maintenance and routine evaluations. As outlined in Attachment G, Compliance Flow Chart, property owners will be given at least five months to comply with the requirement to have an evaluation prior to any penalties being assessed. During this time, educational letters outlining the new requirements and the timeline for
compliance will be sent twice, in addition to other media advertising of the requirements. Although we will try to achieve voluntary compliance, the enforcement process outlined below is necessary to ensure that those who do not voluntarily submit a ROSS will be held to the same standard as those who do.

OSS owners, who do not submit a ROSS after WCHD notification, will receive a second O&M notification letter requiring the submittal of a ROSS within 60 days. If no ROSS is received within a 120 day time period from initial notification, the OSS owner will be sent a Notice of Violation (NOV) outlining a third deadline for the submittal of a ROSS. The NOV provides the OSS owner an opportunity to request an administrative hearing within 7 days to explain why a ROSS has not been submitted. If requested, WCHD will conduct an administrative hearing to decide, based on information provided by the homeowner, to allow additional time to submit a ROSS. If no request for a hearing is received, civil penalties will be assessed from the date the NOV is sent until a ROSS is received by WCHD. An OSS owner may appeal any decision to the Hearings Examiner in accordance with WCC 24.07. The Whatcom County Prosecutors office may bring a Civil Suit and/or lien of the property for the collection of penalties (Attachment G). WCHD may initiate additional reminders to encourage compliance prior to assessing civil penalties. At the end of the enforcement process, if a site remains out of compliance the NOV may be recorded with the County Auditor’s Office.

g) Additional Consequences of Non-compliance with O&M Requirements

An “Application Hold” will be triggered in conjunction with the issuance of the NOV on any parcel where noncompliance with a ROSS submission has occurred. Any Whatcom County permit applications requiring WCHD approval through Planning and Development Services (PDS) will not receive Health Department Approval. Once an evaluation is performed and a satisfactory ROSS is filed with WCHD, Health Department approval will be granted.

E. Evaluation

The O&M program will be evaluated on an as needed basis in the following ways:

1. Comparing notification numbers vs. submitted ROSS documents.
2. Tracking the number of submitted ROSS documents specific to the Marine Recovery Area.
3. Tracking failure rates and number of repair permits issued.
4. Reviewing any trends in water quality data we receive.
F. Resources

The O&M program is funded by an annual OSS fee of $19 per system. The OSS fee is assessed through property tax statements collected by the Treasurer’s Office. The $19 fee is part of the county’s Unified Fee Schedule (UFS# 2792). Substitute Senate Bill (SSB) 6116 authorized local boards of health in the twelve counties bordering Puget Sound to impose and collect reasonable rates and charges to pay for the actual costs of administration and operation of the Plan and contract with the county treasurer to collect the rates or charges imposed. The $19 fee was adopted with the 2013 Whatcom County Unified Fee Schedule under Ordinance 2012-043. Currently Whatcom County has budgeted three O&M staff to implement the requirements of this plan: two environmental health specialists and a clerk. Additional resources may be needed after program evaluations are conducted.
Part 4 - Marine Recovery Area Strategy

Summary: Based on DOH established criteria, the Drayton Harbor Watershed and Portage Bay-Nooksack River Watershed have been designated a Marine Recovery Area (MRA). WCHD will continue to identify and assure the repair of all failing OSS in the designated MRAs. In addition, all unknown OSS within the MRAs will be identified and evaluated. Should the WCHD receive water quality data or other science based information indicating that a marine area is experiencing surface water degradation due to failing OSS, designation of additional MRA’s will be considered.

O&M requirements have been implemented within the Drayton Harbor MRA. All 2,884 known OSS owners within the Drayton Harbor MRA have been notified of their O&M requirements. Over 99% (2,872) of notified OSS owners had an evaluation completed by 2015. Routine O&M requirements will continue to be implemented within the Drayton Harbor Watershed MRA, as implementation begins in the Portage Bay-Nooksack River Watershed MRA. OSS owners will be notified via mail of the regulations and their responsibility to have their OSS evaluated.

O&M evaluations can be performed by a licensed O&M specialist or certified homeowner. OSS indicated on the ROSS as failing will be verified by a WCHD site visit to confirm the failure and ensure that the system is repaired.

A. Introduction

In March 2006, the Washington State Legislature enacted Third Substitute House Bill 1458, which became RCW 70.118A. This law created a new type of management area called an MRA, to be defined based on a determination that additional requirements for existing OSS may be necessary to minimize OSS impacts on receiving waters. The law requires local health jurisdictions to establish MRAs in places where OSS are a significant factor contributing to concerns associated with the following areas:

1. Shellfish growing areas that have been threatened or downgraded by the Department of Health

Most of Drayton Harbor is classified as prohibited for shellfish harvesting by the Department of Health (DOH), based on their on-going water quality monitoring program. Therefore, the Drayton Harbor Watershed was designated as an MRA. Portage Bay had 500 harvesting acres downgraded as conditionally approved, and was also designated as an MRA.

As described in Part 2, Whatcom County has shellfish growing areas in Birch Bay, Lummi Bay, Portage Bay and Drayton Harbor, all of which are monitored by DOH. Birch Bay and Lummi Bay are classified as approved. The shellfish beds of North Chuckanut Bay were closed by the DOH in the mid 1990’s.
2. Marine waters that are listed by the Department of Ecology under section 303(d) of the federal Clean Water Act for low dissolved oxygen or fecal coliform

Marine waters near the mouth of Drayton Harbor, as well as segments of Dakota and California Creeks are on the US EPA 303D list for fecal coliform. Dakota and California Creeks are the major freshwater tributaries of Drayton Harbor.
Tributaries of the Nooksack River are also on the US EPA 303D list for fecal coliform.

3. Marine waters where nitrogen has been identified as a contaminant of concern by the local health officer

Whatcom County has no marine waters where nitrogen has been identified as a contaminant of concern.

In addition to identifying an MRA, RCW 70.118A requires WCHD to adopt an MRA OSS Strategy for each MRA identified. The strategy was required to describe how WCHD will accomplish the following tasks by July 1, 2012, and thereafter:

a) Find existing failing OSS and ensure that their owners make necessary repairs,
b) Find unknown systems and ensure that they are inspected as required and repaired if necessary;
c) Require O&M professionals or homeowners to submit reports to WCHD; and
d) Develop and maintain an electronic database of all OSS within the MRA.

B. MRA Designation

WCHD designated the Drayton Harbor Watershed (Drayton) and Portage Bay-Nooksack River Watershed (Nooksack) an MRA. Drayton encompasses the entire Drayton Harbor Shellfish Protection District and Nooksack encompasses the entire Portage Bay Shellfish Protection District. Failing OSS in these watersheds could impact water quality.

The MRA designation is based on the fact that WA Department of Health has designated most of Drayton Harbor as prohibited for shellfish harvesting, and downgraded 500 acres of Portage Bay to conditionally approved. Despite on-going efforts to locate and repair failing OSS and other non-point sources of bacterial contamination, there is evidence of elevated fecal coliform counts within both watersheds and shellfish harvest areas. Failing OSS may be a contributor of non-point pollution source to surface water degradation.

Segments of Dakota and California Creeks are on the US EPA 303D list for fecal coliform. Dakota and California Creeks are the two major freshwater tributaries of Drayton Harbor. Numerous tributaries of the Nooksack River are on the US EPA 303D list for fecal coliform. For this reason, the entire Drayton Harbor Watershed and Portage Bay-Nooksack River Watershed have been designated an MRA. In early 2007, a Microbial Source Tracking Study (MST) was conducted within selected California Creek tributaries. In 2009, a second MST study was completed in both the California Creek and Dakota Creek drainages. The goal of both studies was to determine the presence/absence of human and ruminant bacterial waste within those tributaries. Once identified, the source of bacterial waste, agriculture
or OSS related, can be addressed. The second MST study found human biomarkers present at seven of the sixteen sample sites.

The Whatcom County Public Works Pollution Identification and Correction (PIC) program oversees surface water monitoring projects throughout the county. PIC has recently identified Lower Dakota, Brown/Malloy, and Loomis Trail in Drayton Harbor Shellfish Protection District and Fishtrap in the Portage Bay Shellfish Protection District as priority areas. Public Works has also conducted monitoring activities in the California Creek drainage. If water quality sampling information indicates potential contamination from OSS, WCHD will initiate investigations to identify potential failing OSS in those areas.

Currently, the Drayton Harbor Watershed and Portage Bay-Nooksack River Watershed are the only designated MRAs within Whatcom County. As per RCW 70.118A.040, “the local health officer may designate additional marine recovery areas meeting the criteria of this section,...” Therefore, should WCHD receive water quality data or other technical information indicating that a given area is experiencing surface water degradation due to failing OSS, consideration will be given to that area as a potential MRA.

C. MRA OSS Strategy

1. Initial Implementation

Initial implementation of O&M tracking and enforcement started within the SMA of the Drayton Harbor Watershed. This is because failing OSS within this area would have the greatest potential impact to adjoining surface water bodies.

After initial implementation, O&M tracking proceeded to the rest of the Drayton Harbor Watershed. All OSS owners were notified by May 2014. Routine O&M tracking will continue in the Drayton Harbor Watershed.

O&M implementation for the Portage Bay-Nooksack River Watershed began in 2015 in the Lynden North sub-watershed. Implementation will be prioritized based on water quality data provided by the Whatcom County PIC program. Lynden North sub-watershed was the first area in the Portage Bay-Nooksack River Watershed due to high bacteria levels in the Fishtrap, Bertrand, and Kamm drainages. Following the Lynden North sub-watershed, the current water quality data would direct O&M mailings to be sent in the following order: Lower Mainstem Nooksack, Upper Mainstem Nooksack, Ten Mile, Silver/Nooksack Channel, Middle Fork, South Fork, North Fork. Sub-watershed prioritization may change based on future water quality data. Although the Fort Bellingham, Lummi Peninsula, and Bellingham Bay sub-watersheds do not drain into the Nooksack River nor located within the Portage Bay Shellfish Protection District, the SMA of these sub-watersheds will also be notified. Failing OSS in the SMA adjacent to Bellingham Bay have the potential to directly impact water quality in Portage Bay.
2. Implementation Process

  a) Mail Notification

  All OSS owners (2,884) who did not have a ROSS on file in the DHW have been notified. OSS owners will continue to be notified of their responsibility to have subsequent evaluations of their OSS annually or every three years based on system type. A list of O&M specialists and educational material will be included.

  OSS owners in the Portage Bay-Nooksack River Watershed MRA will be notified in order of priority area based on available water quality data. Notifications throughout the entire MRA will be completed by the end of 2018. Routine notifications will continue after all OSS owners within the MRA have been contacted one time through.

  b) Locating Unknown OSS

  Parcels where we have an OSS permit record, an application, or a record of pumping are considered “known” OSS sites. “Unknown” OSS are those that are in the ground and we have no information at all. In an effort to locate unknowns, we set up criteria when building our mailing lists. All parcels not currently serviced by a sewer system, but were shown by the Assessor data to have a street address and a building value received a notification.

  WCHD follow-up will occur on parcels reported as vacant by the owner. Aerial photographs will be examined to confirm the vacant condition. If necessary, a WCHD site visit will be conducted to confirm the information. Vacant parcels will be documented within the OSS database.

  c) OSS Evaluation/ ROSS Submittal

  Evaluations can be completed by either a certified homeowner or a licensed O&M Specialist. The ROSS form must be completed and submitted to WCHD. OSS failures indicated on the ROSS will be verified and followed up to ensure that the OSS is repaired.

  d) Homeowner OSS Evaluations

  OSS owners who choose to perform their own evaluations may become certified to do so in accordance with WCC 24.05.160.

  e) Homeowner incentives and assistance
In order to meet the goal of ensuring that all OSS in the MRA are found, evaluated and failures repaired; WCHD has the following options available for those who may need assistance.

- **O&M rebate:** Whatcom County Public Works PIC program is offering rebates for OSS owners that complete homeowner septic training and live within an MRA that has been prioritized. Rebates can go towards the cost of an evaluation completed by a licensed specialist, septic tank pumping, or maintenance performed.

- **Loan program:** WCHD was awarded a grant from the Department of Ecology and has contracts with Industrial Credit Union (ICU) and Opportunity Council (OC) to administer low interest and deferred loan options for property owners with failing OSS.

- **O&M professional donations:** WCHD will work with licensed O&M Specialists who may be willing to offer services to property owners for a reduced fee in order to complete evaluations.

- **O&M staff:** As staff time permits, and property owners have demonstrated that they cannot utilize the other options, WCHD EHS will offer to survey the OSS in order to determine the status of the OSS.

**f) WCHD Follow-up**

WCHD will evaluate the mail out list to determine which OSS owners have not complied with OSS O&M requirements and initiate enforcement.

**g) Enforcement**

The WCHD will do everything possible to gain compliance through voluntary means, including an education program that informs OSS owners of the benefits of maintenance and routine evaluations. As outlined in Attachment G, Compliance Flow Chart, property owners will be given at least five months to comply with the requirement to have an evaluation prior to any penalties being assessed. During this time, educational letters outlining the new requirements and the timeline for compliance will be sent twice, in addition to other media advertising of the requirements. Although we will try to achieve voluntary compliance, the enforcement process outlined below is necessary to ensure that those who do not voluntarily submit a ROSS will be held to the same standard as those who do.

OSS owners, who do not submit a ROSS after WCHD notification, will receive a second O&M notification letter requiring the submittal of a...
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h) Additional Consequences of Non-compliance with O&M Requirements

An “Application Hold” will be triggered in conjunction with the issuance of the NOV on any parcel where non compliance with a ROSS submission has occurred. Any Whatcom County permit applications requiring WCHD approval through Planning and Development Services (PDS) will not receive Health Department Approval. Once an evaluation is performed and a satisfactory ROSS is filed with WCHD, Health Department approval will be granted.

D. Electronic data system of OSS within MRA

O&M Specialists and certified homeowners are required to indicate the operational status of the OSS they evaluate. The evaluation process consists of a “report” and a “checklist”. The checklist is utilized to assure that all OSS components are evaluated (Attachment C). The checklist is used to complete the ROSS report (Attachment D).

The completed ROSS form indicates whether the OSS is functioning satisfactory, maintenance is needed, or is failing. For each ROSS submission, the operational status is entered into the OSS database. The checklist and report forms are also scanned into the database. The ROSS information can be retrieved from the database via a search of the OSS tax parcel number or site address.

WCHD is considering on-line data entry options for ROSS and pumper report submittal. On-line data entry will improve efficiency for O&M professionals and staff.
Part 5 - Education

Summary: WCHD currently provides an array of O&M educational brochures available to the general public at our office location, on our website, and specifically to the individual OSS owner upon permit issuance. WCHD provides presentations to realtors and other venues on the importance of proper O&M and the regulatory requirements. In addition, WCHD offers an online homeowner septic training and in-person workshops to educate and certify homeowners to conduct their own evaluations. Homeowner trainings provide basic information on on-site sewage systems and details on how to operate, maintain, and evaluate an OSS.

OSS owners who chose to perform their own O&M evaluations will be required to complete one of the trainings offered and become certified to submit their own evaluation. Attendees of the class will learn: how a septic system works, what a baffle is, what the different system types are, what causes an OSS to fail, why it is important to inspect an OSS, how to measure scum and sludge in a septic tank, how to inspect a drainfield, how to clean an outlet filter, what to look for in an OSS monitoring port, how to tell if a drainfield is failing, and how to fill out a ROSS.

A. Current Education.

WCHD provides:
1. An eight page informational brochure “The Care of your Septic System and Well Water” to the general public describing proper care of your on-site sewage system. This document, which was originally developed by Clallam County, is given out whenever an OSS permit is purchased.
2. Social marketing to promote OSS O&M and advertise homeowner workshops.
3. Information on our website that includes answers to general O&M questions, local regulations, and links to the WA State Department of Health.
4. Presentations to Realtors regarding implementation of the new regulation and the “Report of System Status” evaluation process required at the time a property is offered for sale.
5. Videos on OSS O&M have been made available to the public through the Whatcom County Library System.
6. O&M Displays at local events such as the Northwest Washington Fair and the Salmon Summit.
7. Homeowner O&M workshops scheduled in priority areas that have received O&M requirement notifications.

B. Planned Education.

The public’s response to WCHD homeowner trainings has been positive. WCHD will continue to schedule workshops in targeted MRA watersheds that have been notified. On-line homeowner septic training will also continue to be available.

WCHD will also work with industry professionals (O&M Specialists and pumpers) to hold periodic meetings and provide desired trainings.
C. Current Reminders.
At the time of OSS permit issuance, an O&M information packet is provided which includes:
1. A WCHD publication entitled “7 Ways to Save Thousands of Dollars in Septic System Repairs”.
2. A WCHD publication entitled “Take Care of Your Septic System and Well Water”.
3. An informational flier with specific maintenance information related to their system type, i.e. conventional gravity, pressure mound, etc.

D. Planned Reminders.
1. Targeted mailings for O&M implementation county-wide.
2. O&M reminder messages in newsprint, radio, internet, and television.

E. Measured effectiveness.
1. Surveys of participants attending educational presentations.
2. Increased number of OSS failures discovered.
3. Increased number of ROSS documents received.
4. Increased number of licensed O&M specialists.
5. Identify the location and operational status of previously unknown OSS.

Development and implementation costs associated with homeowner education classes may require additional funding.
Part 6 – Plan Summary

The following is a summary of the proposed activities, goals and necessary resources required to reach the goals established in Parts 1 through 5 of the OSS Local Management Plan. In the implementation of the OSS Local Management Plan, adaptive management strategies will be applied. Therefore, should any aspect or content of the plan require modification, WCHD will revise as necessary.

Part 1 – Database Enhancement

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<td>• Notifications • Follow-up • Enforcement</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-line ROSS entry</td>
<td>End of 2016</td>
<td>Data specialist staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>

Part 2 – Identification of Sensitive Areas

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIMELINE</th>
<th>COST</th>
<th>COST TYPE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify sensitive areas, including Marine Recovery Areas</td>
<td>Upon plan approval and ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Coordinate with planning agencies</td>
<td>Ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>SEPA Review of OSS Local Management Plan</td>
<td>1/08 1/16</td>
<td>$350.00</td>
<td>Per update review</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>
### Part 3 – Operation, Monitoring and Maintenance in Sensitive Areas

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIMELINE</th>
<th>COST</th>
<th>COST TYPE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution of O&amp;M information at time of permit issuance</td>
<td>Ongoing</td>
<td>OSS support staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Follow-up on ROSS submissions</td>
<td>Ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Auditing of O&amp;M specialists and home owners O&amp;M program evaluation</td>
<td>Ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>OSS within sensitive areas (Lake Whatcom watershed and SMA) will be documented and evaluated</td>
<td>Ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Enforcement</td>
<td>On-going</td>
<td>O&amp;M staff time</td>
<td>As needed</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>

### Part 4 – Marine Recovery Area Strategy

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIMELINE</th>
<th>COST</th>
<th>COST TYPE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>All OSS within the MRA will be documented and evaluated</td>
<td>Drayton complete and ongoing. Portage by 2018</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>

### Part 5 – Education

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIMELINE</th>
<th>COST</th>
<th>COST TYPE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing and implementing homeowner O&amp;M classes</td>
<td>Completed, adjustments ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Producing and mailing out O&amp;M notifications and educational material</td>
<td>Ongoing</td>
<td>$10,000 per year</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>O&amp;M educational presentations to watershed advocacy groups, homeowners’ associations and</td>
<td>On-going</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>
other interested groups

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>Responsible Party</th>
<th>Status</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizing meetings with O&amp;M specialists and pumpers</td>
<td>Semi-annually</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
<tr>
<td>Improve web-site</td>
<td>Ongoing</td>
<td>O&amp;M staff time</td>
<td>Ongoing</td>
<td>Local dollars</td>
</tr>
</tbody>
</table>

**Attachment A: List of Acronyms**

ATU = aerobic treatment unit

DOH = Washington State Department of Health

DHW = Drayton Harbor Watershed

EHS = Environmental Health Specialist

EPA = United States Environmental Protection Agency

MRA = Marine Recovery Area

O&M = Operation and Maintenance

O&M Specialist = Licensed Operation and Maintenance Specialist

OSS = On-site Sewage System

PDS = Whatcom County Planning and Development Services

RCW = Revised Code of Washington

ROSS = Report of System Status

SMA = Shoreline Management Area

WAC = Washington Administrative Code

WCC = Whatcom County Code

WCHD = Whatcom County Health Department

WHAMO = Whatcom County Maintenance and Operation
Attachment B: Site Status Code List

A1 = Active, permitted, final inspected system
A2 = Active OSS with permit but not final inspected
A3 = Active OSS without permit
B1 = Likely OSS (Permit approved)
B2 = Likely OSS (No permit)
C1 = OSS under development
N1 = Absence of OSS confirmed
S1 = Sewer connection confirmed
Attachment C: Report of System Status (ROSS)

Whatcom County Health Department

ON-SITE SEWAGE SYSTEM (OSS)
REPORT OF SYSTEM STATUS
Homeowners - please use the HROSS form

Date of Inspection ____________________ Tax Parcel # ____________________
Sits Address __________________________ Property ID: ____________________
Space/Lot Number or Location (if multiple OSS) ____________________________
Owner ____________________________ Phone ____________________________

Originals must be submitted to the Health Department. No photocopies – No faxes.
Incomplete evaluations will not be accepted. All spaces must be complete or marked N/A if not applicable.

OPERATIONAL STATUS:

Upon Arrival  ☐ Satisfactory  ☐ Maintenance Needed  ☐ Failure
Upon Completion  ☐ Satisfactory  ☐ Maintenance Needed  ☐ Failure

(if “Maintenance Needed” is checked, describe type of maintenance needed/completed on page 4 (Maintenance Addendum).
If septic tank pumping is only maintenance needed, page 4 is not required.)

EVALUATION PERFORMED FOR:
☐ Routine Compliance  ☐ Property Transfer

OSS SOURCE:
☐ Single Family  ☐ Food Service – Name: ____________________
☐ Community  ☐ Other (type): ____________________

OSS TYPE:
☐ Conventional Gravity  ☐ Pressure Distribution
☐ Pump to Gravity Distribution  ☐ Non-Pressurized Mound
☐ ATU w/ Drip Irrigation  ☐ Sand Filter w/ Pressure Dist.
☐ Bioreactor  ☐ ATU to Gravity
☐ Drip Irrigation (w/out ATU)  ☐ Sand Filter w/ Gravity
☐ Mound  ☐ ATU w/ Mound
☐ Mound  ☐ ATU w/ Pressure Distribution
☐ Other: ____________________

SEPTIC TANK PUMPING RECOMMENDED?  ☐ No  ☐ Yes

SEPTIC TANK PUMPING IS ONLY MAINTENANCE NEEDED?  ☐ No  ☐ Yes
If tank was pumped, date: ____________________ Pumper: ____________________

PERMIT STATUS:
☐ Valid WCHD permit with final approval
☐ Non-issued permit (application approval only) – OSS Drawing Required (Must use 8 ½” x 11”)
☐ No Permit on File – OSS Drawing Required (Must use 8 ½” x 11”)
☐ Site sketch on file with WCHD (form a previous ROSS)

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. Findings and determinations of this evaluation reflect conditions as they existed on the day the OSS was evaluated.

O&M Specialist Signature ____________________ Print ____________________ Date ____________________

Office Use Only:
Rev’d by: ____________________ Rec’d date: ____________________
## Septic Tank

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank Material</td>
<td>Concrete, Plastic, Wood, Other</td>
</tr>
<tr>
<td>Volume</td>
<td>Gallons</td>
</tr>
<tr>
<td>Depth of scum</td>
<td>1st compartment inches, 2nd compartment inches</td>
</tr>
<tr>
<td>Depth of sludge</td>
<td>1st compartment inches, 2nd compartment inches</td>
</tr>
<tr>
<td>Inlet baffle condition</td>
<td>Satisfactory, Needs Repair</td>
</tr>
<tr>
<td>Outlet baffle condition</td>
<td>Satisfactory, Needs Repair</td>
</tr>
<tr>
<td>Outlet Filter</td>
<td>Satisfactory, Not Present, Cleaned</td>
</tr>
<tr>
<td>Watertight</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Risers/Lids in good condition</td>
<td>Satisfactory, Needs Repair, Not Present</td>
</tr>
</tbody>
</table>

### Comments

## Pump Tank

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank Material</td>
<td>Concrete, Plastic, Wood, Other</td>
</tr>
<tr>
<td>Volume</td>
<td>Gallons</td>
</tr>
<tr>
<td>Vault Screen</td>
<td>Satisfactory, Needs Repair, Not Present, Cleaned</td>
</tr>
<tr>
<td>Watertight</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Risers/Lids</td>
<td>Satisfactory, Needs Repair, Not Present</td>
</tr>
<tr>
<td>Depth of scum</td>
<td>inches</td>
</tr>
<tr>
<td>Depth of sludge</td>
<td>inches</td>
</tr>
</tbody>
</table>

### Comments

## Control Panel/Floats

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floats/transducer functioning</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Alarm working satisfactorily</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Pump controlled by</td>
<td>Dose timer, Demand</td>
</tr>
<tr>
<td>Pump drawdown</td>
<td>inches/minute</td>
</tr>
<tr>
<td>Timer settings</td>
<td>min. on, hours off (timed)</td>
</tr>
<tr>
<td>Adjustment needed</td>
<td>Yes, No</td>
</tr>
</tbody>
</table>

### Comments

## Aerobic Treatment Unit

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air supply working</td>
<td>Satisfactory, Needs Repair</td>
</tr>
<tr>
<td>Alarm operation</td>
<td>Satisfactory, Needs Repair</td>
</tr>
<tr>
<td>Solids Levels</td>
<td>Satisfactory, Needs Pumping</td>
</tr>
<tr>
<td>Risers/Lids in good condition</td>
<td>Satisfactory, Needs Repair</td>
</tr>
</tbody>
</table>

### Comments

## Disinfection Unit

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit working as expected</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Chlorine tablets in place</td>
<td>Yes, No</td>
</tr>
<tr>
<td>UV bulb replaced</td>
<td>Yes, No</td>
</tr>
</tbody>
</table>

### Comments
Media Filter

Type: □ Sand Filter □ Recirculating gravel □ Textile □ Other □ N/A

Equal Distribution □ Yes □ No □ N/A

Laterals flushed (individually) □ Yes □ No □ N/A

Grading and cover □ Satisfactory □ Needs Repair □ N/A

Abnormal ponding in filter □ Yes (explain in comments) □ No

Pump basin installed in sand or gravel filter (use addendum) □ Yes □ No □ N/A

Comments

Drainfield

□ Gravity □ Pressure □ Trench □ Bed □ Gravel □ Gravelless Chamber

Graded properly for surface water runoff □ Yes □ No

Downspouts diverted away from drainfield □ Yes □ No

Curtain Drain Functioning □ Yes □ No □ N/A

Evidence of compaction over drainfield □ Yes □ No

Encroachment from buildings etc □ Yes □ No

Vegetative cover properly managed □ Yes □ No

Monitoring ports □ Satisfactory □ Needs Repair □ N/A

Abnormal ponding or erosion □ Yes □ No

Comments

Distribution box □ Yes □ No □ Equal distribution □ Yes □ No

Laterals flushed (pressurized only) □ Yes □ No □ N/A

All laterals have equal flow and residual pressure (pressurized only) □ Yes □ No

Squirt height measurement at distal end of each lateral (pressurized only) □ Yes □ No

Diversion valve switched □ Yes □ No □ N/A

Comments

Drainfield Flow Test

Total Number of Bedrooms Served by OSS: ________

Run test for ________ minutes; approximately ________ gallons ran through system

Level in septic tank at start of test ________ Level at end of test ________ Returned to normal in ________ minutes

Pump systems - float tether length ________ Number of pump cycles ran ________

Evidence of dye and/or effluent surfacing □ Yes □ No

Comments

Mounds (including Glaedon BioFilters) □ N/A □ Gravity □ Pressure □ Proprietary

Seepage around toe of mound observed □ Yes □ No □ N/A

Structural integrity and ground cover ok □ Yes □ No □ N/A

Comments

Subsurface Drip System □ N/A

Dosing frequency ________ times daily □ System return pressure ________ PSI

Consistent with baseline □ Yes □ No □ N/A

Automatic flushing operating satisfactorily □ Yes □ No □ N/A

Vacuumbreakers operating properly □ Yes □ No □ N/A

Grading and cover □ Satisfactory □ Needs repair

Comments
ON-SITE SEWAGE SYSTEM
MAINTENANCE ADDENDUM

Date of Maintenance ___________________ Tax Parcel# ___________________

Site Address __________________________ Property ID: ___________________

Owner ___________________________ Phone ___________________

Mailing Address __________________________

Cty ___________ State ___________ Zip ___________

Attention: Complete all fields if submitted as a standalone document

Type of maintenance needed (please print clearly and attach more pages or copies of invoices if necessary):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Type of maintenance completed. Please indicate if no maintenance completed (please print clearly and attach more pages or copies of invoices if necessary):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

I certify that I have performed the OSS maintenance on the above referenced property. The information submitted above is true and correct.

_________________________________  ________________________________  ___________________
Signature                  Print                     Date

Mailing Address __________________________ Phone Number __________________

Cty/State/Zip ___________ Email ___________

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Attachment D: Homeowner Report of System Status (HROSS)

Whatcom County Health Department
ON-SITE SEWAGE SYSTEM
HOMEOWNER REPORT OF SYSTEM STATUS CHECKLIST

Date of Inspection ___________________________ Tax Parcel # ___________________________
Site Address __________________________________________ Property ID: ______________________
Owner __________________________________________ Phone/Email __________________________

***Originals must be submitted to the Health Department. No photocopies - No fax***

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.
1. Is your inlet baffle intact and in good condition? .................................................. □ Yes .......... □ No
2. Is your outlet baffle intact and in good condition? .................................................. □ Yes .......... □ No
3. Did you clean your outlet baffle filter? ................................................................. □ Yes .......... □ No ...... □ N/A
4. 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
5. Does your tank need pumping? ............................................................................. □ Yes .......... □ No

PUMP TANK – Fill out this section if your septic system has a pump and pump tank
6. Are there solids present in the pump tank? .......................................................... □ Yes .......... □ No
7. Is your Pump Vault Basket Screen Filter intact and not collapsed? ..................... □ Yes .......... □ No ...... □ N/A
8. Does your pump tank have a control panel? ......................................................... □ Yes .......... □ No ...... □ Brand
9. Does your Alarm Float work? ............................................................................... □ Yes .......... □ No ...... □ N/A
10. Does your timer setting still match your approved design? ................................. □ Yes .......... □ No ...... □ N/A

DRAINFIELD – Everyone must complete this section.
11. 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
12. Is there surface effluent present over the drainfield? ........................................... □ Yes .......... □ No
13. Does effluent over surface over the drainfield? ..................................................... □ Yes .......... □ No

SAND FILTER – Fill out this section if your septic system has a sand filter.
14. 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
15. Is there surface effluent over the sand filter? ......................................................... □ Yes .......... □ No
16. Does effluent over surface over the sand filter? ..................................................... □ Yes .......... □ No

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 to follow up on the results of this evaluation. 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.

Signature ____________________________ Print __________________________________________ Date __________________________

Office Use Only:
Res’d By: ____________________________ Res’d Date: __________

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Attachment E. Ross Flow Chart

ROSS Received by WCHD

- Satisfactory
  - Database entry
  - No further action

- Maintenance needed
  - Database entry
  - No further action by WCHD. Follow-up responsibility of property owner

- Failure
  - Database entry
  - Site visit by O&M staff
    - Failure confirmed
      - Notify Lic. O&M specialist and homeowner
      - Change status of ROSS in database
      - Routine letter sent requiring OSS repair application within 30 days, and installation within 60 days
    - Failure not confirmed
# Attachment F: Pumper Report

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MONTH</th>
<th>PUMPER COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>PROPERTY OWNER NAME</td>
<td>SITE ADDRESS</td>
</tr>
</tbody>
</table>

| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |
| comments: |

All information must be legible & is due to Whatcom Health Department no later than 5 business days after the receipt of the previous month's results.

Signature of Licensed Pumpers:  

Page of  

TOTAL
Attachment G: Compliance Flow Chart

Report of System Status (ROSS) Compliance

Key:
Red Border—file forwarded to Prosecuting Attorney
WHY MONITOR SEPTIC SYSTEMS?

- Protect public health
- Water quality issues
- Failing systems
- Regulatory requirement
WHAT IS A LOCAL MANAGEMENT PLAN?

- Plan to effectively manage on-site sewage systems (OSS)
- Facilitate operation and maintenance
- Identify and correct failing OSS
  - Reduce public health hazards
  - Improve water quality
  - Reopen previously closed shellfish areas
O&M PROGRAM SUMMARY

- Operation & Maintenance mandated by state DOH in 2007
- Initial Local Management Plan adopted in 2008
- O&M program successfully implemented
- Local Management Plan update in 2016
Why develop the “plan”?

Chapter 246-272A-0015 WAC:
(1)By July 1, 2007, the local health officers of health jurisdictions in the twelve counties bordering Puget Sound shall develop a written plan that will provide guidance to the local health jurisdiction regarding development and management activities for all OSS within the jurisdiction.
Whatcom County Code 24.05.160 Operation & Maintenance requires an O&M evaluation be completed:

- At least once every three years for gravity systems
- Annually for all other systems
- At the time of property transfer (current evaluation must be made available to the buyer)

WCC 24.06.160 allows homeowners to perform their own evaluations.
Chapter 70.118A RCW, On-site sewage disposal systems - Marine Recovery Areas (MRA):

(1) In developing on-site program management plans required under RCW 70.118A.030, the local health officer shall propose a marine recovery area for those land areas where on-site sewage disposal systems are a significant factor...
LOCAL MANAGEMENT PLAN COMPONENTS

- Part 1: Electronic database enhancement
- Part 2: Identification of sensitive areas
- Part 3: Operation, monitoring, and maintenance in sensitive areas
- Part 4: Marine Recovery Area (MRA) on-site strategy
- Part 5: Education
- Part 6: Summary
Database (Whamo) was developed and baseline inventory of OSS was created (21,000 OSS)

Initial sensitive areas were established (Drayton Harbor and Shoreline Management Area)

O&M requirement process established

MRA strategy was developed
O&M PROGRAM SUCCESSES

- Drayton Harbor (99%) and Lake Whatcom (100%) compliance
- Drayton Harbor improvements
- Over 20,000 evaluations completed
- Replacement OSS and ROSS failures
- Loan program
COORDINATION WITH OTHER PROGRAMS

- PIC program
- PDS
- Whatcom Clean Water Program
- Shellfish Protection Districts
- Whatcom Local Integrating Organization
Database enhancement:
- Updated data and figures
- Summary of notifications made
- Considering on-line data entry options
- Homeowner evaluation criteria
Identification of sensitive areas:

- Designated sensitive areas

- Updated Drayton Harbor Shellfish growing area map

- Removed discussion of other potential sensitive areas to consider

- Current evaluation required for PDS building and land use permit applications
Operation, monitoring and maintenance in sensitive areas:
- Photos required with homeowner evaluation
- PIC program involvement
- No longer sending follow-up letters to homeowners with “maintenance needed”
- Community septic systems
Marine Recovery Area strategy:
- Portage MRA designation
- OSS owner incentives
- Education emphasis
SUMMARY

- Operation & Maintenance mandated by state DOH in 2007
- Initial Local Management Plan adopted in 2008
- O&M program successfully implemented
- Local Management Plan update in 2016