

Division of Environmental Health

On-Site Sewage System Management Plan Guidance

For The Twelve Puget Sound Counties

June 2006



PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON

Division of Environmental Health

On-Site Sewage System Management Plan Guidance

For The Twelve Puget Sound Counties

June 2006



For more information or additional copies of this document, contact:

Wastewater Management Program
Washington State Department of Health
PO Box 47825
Olympia, WA 98504-7825

Phone: (360) 236-3062

FAX: (360) 236-2261

Web: <http://www.doh.wa.gov/wastewater.htm>

Secretary of Health
Mary Selecky

For persons with disabilities, this document is available upon request in other formats.
To submit a request, please call 1-888-586-9427 (TDD/TTY 1-800-833-6388).

Para personas discapacitadas, este documento está disponible a su pedido en otros
formatos.

Para hacer su pedido llame al 1-888-586-9427 (TDD/TTY 1-800-833-6388).

Table of Contents

Executive Summary	7
Key Questions and Answers	8
Introduction	10
Background	10
Process and Timeline	12
Management Plan Guidance Flowchart	13
MRA Designation Flowchart	14
Part 1 – Database Enhancement	15
Intent	15
Background	15
OSS Definitions	16
Activities	17
Resources Necessary to Implement Data Components of the plan	22
Timeline	23
Summary of Database Activities	23
Examples of LHJ Activities	23
Part 2 – Identification of Sensitive Areas	24
Intent	24
Background	24
Activities	25
Resources	27
Timeline	27
Summary and Prioritization of Activities	27
Examples of LHJ Activities:	28
Part 3 – Operation, Monitoring and Maintenance in Sensitive Areas	29
Intent	29
Background	30
Activities	30
Resources	31
Timeline	31
Summary and Prioritization of Activities	31
Examples of LHJ Activities	32
Part 4 – Marine Recovery Area Strategy	33
Intent	33
Background	33
Activities	34
Resources	36
Timeline	36
Summary	36

Part 5 – Education	37
Intent	37
Background	37
Activities	38
Resources	39
Timeline	39
Summary and Prioritization of Activities	40
Examples of LHJ Activities	40
Part 6 – THE PLAN Summary	41
Intent	41
Background	41
Activities	42
Plan Checklist	46
Appendices	48
Appendix A – WAC 246-272A-0015 Local Management and Regulation	49
Appendix B – Third Substitute House Bill 1458 – Marine Areas	53
Appendix C – Definitions of Sensitive Areas	58
Appendix D – Does the Plan Trigger SEPA	61
Appendix E – Links to Internet Website URLs	62

Executive Summary

Local programs designed to identify and correct failing on-site sewage systems are effective in reducing and eliminating public health hazards, improving water quality, and reopening previously closed shellfish areas. There are currently over a quarter million electronic records of on-site sewage systems in use by local health jurisdictions to help manage these systems in the Puget Sound region. Local programs have made substantial progress in identification of sensitive areas, improved system operation and maintenance, and homeowner education.

In July, 2005 the State Board of Health adopted Chapter 246-272A WAC and in March, 2006 the Legislature enacted Third Substitute House Bill 1458 to support and enhance local health jurisdictions' on-site sewage system management programs. Among changes approved by the Board were stricter siting and design standards and an increased focus on system operation and maintenance. The Legislature introduced additional requirements within Marine Recovery Areas. Both the Board and the Legislature have required the 12 Puget Sound counties to submit on-site sewage system management plans to the Department of Health by July 1, 2007.

This guidance document incorporates requirements under both Chapter 246-272A WAC and Third Substitute House Bill 1458 (a new chapter in Title 70 RCW). It is intended as a resource to assist Puget Sound counties in writing their on-site sewage system management plans and is designed to serve as a tool to help describe how goals will be attained in each program area, create a prioritized list of activities, and identify resources needed. A checklist is included to summarize activities already accomplished and those planned for the future, as well as to help ensure that each plan is complete. Examples of current local health jurisdiction program activities are included to promote an exchange of ideas and sharing of efforts. Management plan topic areas in this guidance include:

- Electronic Database Enhancement
- Identification of Sensitive Areas
- Operation, Monitoring, and Maintenance in Sensitive Areas
- Marine Recovery Area (MRA) On-Site Strategy
- Education
- Plan Summary

The Department of Health (DOH or "the department") will also publish guidance on defining Marine Recovery Areas, to include identification of nitrogen as a contaminant of concern, and will hold workshops to support local health jurisdictions in development and implementation of their on-site sewage system management plans.

Key Questions and Answers

The following questions and answers are designed to help provide initial information about the On-Site Sewage System Management Plan and Guidance.

1. Why do the Local Health Jurisdictions (LHJs) need to write local management plans?

In July 2005, the State Board of Health adopted new on-site sewage system (OSS) rules. These required the local health jurisdictions to write plans for the development and management of all OSS within their jurisdiction. Then, in March 2006, the Legislature added a new section to Title 70 RCW relating to the management of OSS in marine areas (Third Substitute House Bill 1458). Requirements of both actions are included in this guidance.

The intent of the rule and legislation is to provide greater assurance that existing OSS are not causing public health problems, either through inadequate operation and maintenance or outright failure. By writing the Plan, each LHJ will develop or enhance processes to: inventory all OSS within the jurisdiction, identify sensitive areas throughout the jurisdiction including Marine Recovery Areas, establish Operation, Monitoring and Maintenance (O&M) needs in the sensitive areas, inform homeowners of needed maintenance and develop procedures for identifying and repairing failing systems.

2. How will the guidance help LHJs write their plans?

The guidance clarifies the rule intent, explains the Department of Health's (DOH's) expectations, provides information resources, and helps direct the LHJs' efforts in researching and developing the Plan. The guidance format is questions and answers and is designed to provide information the LHJs will need to develop a useful plan.

3. Is assistance available from DOH to work on the plans?

Yes! DOH is available to assist each LHJ with the preparation of their on-site management plans. DOH will develop guidance for designating Marine Recovery Areas, including nitrogen sensitive areas, and will hold workshops to assist in the plan development. DOH is also preparing an O&M guidance document for all systems and will convene a work group on certification or licensing of maintenance specialists.

4. Why do we have to consider Marine Recovery Areas (MRAs)?

Each of the 12 LHJs bordering Puget Sound will decide if they have one or more marine areas where existing OSS are a significant factor contributing to concerns with marine water quality. The provisions in 3SHB 1458 relating to the management of OSS in Marine Recovery Areas are explained in this guidance.

5. What should our plan look like?

The instructions in the Plan Summary (Part 6) describe the format of the finished plan. The important point is that all items on the checklist need to be addressed.

6. What is the timeline for the plans?

The plans for the 12 counties bordering Puget Sound are due July 1, 2007. Flowcharts on pages 9 and 10 may be useful. After the plan has been approved by the local board of health following a public hearing, the health officer shall submit a copy of the Plan to DOH, and to all entities responsible for land use planning and development regulations in the jurisdiction. DOH will review each plan for completeness. The department recommends that the LHJ submit a draft plan to DOH for preliminary review before presentation to the local board of health to avoid the need for additional hearings.



Introduction

This guidance document is intended to help each Local Health Jurisdiction (LHJ) prepare their On-Site Sewage Systems Development and Management Plan. Since there are many ways to successfully manage on-site sewage systems (OSS), this guidance builds in flexibility for LHJs to develop plans that best fit their current programs and long-range plans. LHJs are encouraged to identify incremental program changes and activities targeted to address high risk areas first.

The guidance prompts the reader with questions to aid in the plan development and builds on the direction already taken by each LHJ to:

- Develop, improve and maintain an electronic database for the management of an OSS Inventory
- Know the location and functioning status of all OSS within Marine Recovery Areas
- Identify other areas within the jurisdiction where OSS could increase risk to public health

The plan will result in a detailed list of prioritized activities to guide the LHJ OSS management program and assist in procuring additional resources for full implementation. The Department of Health (DOH or “the department”) will be available to assist with plan development.

The guidance encourages the local health officers to consider using asset-based planning approaches in addition to focusing interventions on identified problems or high-risk situations (failures and high risk areas). An asset based approach works well with a broad community based problem. It is based on the belief that communities have access to strengths and capacities of the citizens and their associations and those assets can be identified and used to address threats to the community’s health and welfare.

Background

On July 13, 2005, the State Board of Health adopted new regulations for on-site sewage systems. The regulations require each Local Health Officer to develop an On-Site Sewage System Management Plan (the Plan) for the development and management of OSS within their jurisdictions. The rule establishes two levels of planning, one for the 12 counties bordering Puget Sound and one for all other counties. Management Plan Guidance for the Puget Sound

Local Health Jurisdictions must be developed by the department by July 1, 2006 and the plans need to be completed by July 1, 2007.

While the management plan is a new rule requirement, the concept of evaluating areas to identify additional requirements for OSS to minimize the affect on public health has been in the state rules as “Areas of Special Concern (ASC)”. The On-site Rule Development Committee (RDC) discussed the intent and use of Areas of Special Concern and agreed that LHJs need the ability to designate Areas of Special Concern; however, few LHJs had actually completed the process of establishing an ASC. The RDC recommended the department add a planning requirement to the draft rules, requiring each jurisdiction to broadly plan for the development and management of OSS within their jurisdiction, with priority given to sensitive areas.

In March 2006, the Washington State Legislature added a new chapter to [Title 70 RCW](#) relating to the management of OSS in marine areas (3SHB 1458). Marine Recovery Areas (MRAs) must be identified when existing OSS are a significant factor contributing to concerns associated with the degradation of shellfish growing areas, marine waters listed by the Department of Ecology (Ecology) for low-dissolved oxygen levels or fecal coliform, or marine waters where nitrogen has been identified as a contaminant of concern. The LHJ must develop an on-site strategy to manage OSS within the MRA. The requirements of both the WAC 246-272A-0015 (Appendix A) and 3SHB 1458 (Appendix B) are included in this guidance.

This guidance document describes the local development and management plan requirements. It does not include all the guidance needed to designate MRAs. This will come in a companion document to be issued in the fall of 2006. When 3SHB 1458 was passed in March 2006, the local management plan guidance document was in preliminary draft form. To assist the LHJs with the planning process, the new statutory requirements are highlighted with blue boxes in each part of this guidance and where possible are included in the text.

Potential benefits of an effective local OSS Development and Management plan include the ability to:

- Reduce or eliminate non-point pollution from OSS
- Define policies that include consideration of sensitive areas when permitting OSS
- Increase the accessibility of information about OSS
- Increase identification of both failing and unknown OSS
- Increase homeowner awareness and understanding of the need and benefit of ongoing operation, monitoring, and maintenance (O&M) of their OSS
- Incorporate implementation of the Plan into local rules
- Guide OSS permitting and O&M requirements
- Engage local constituents in implementation of the Plan
- Identify funding and resource deficiencies
- Increase funding opportunities
- Provide transitional consistency when staff or local board changes occur
- Provide a foundation for developing a community understanding that the on-site program is being consistently implemented
- Provide continuing guidance to assure that consistent, goal-oriented program implementation occurs

- Provide a basis for periodic program evaluation
- Establish a commitment for coordination with other local development and planning activities

This guidance is divided into sections with an intent and background statement followed by a series of questions or items that need to be addressed. The questions are designed to guide the LHJs as they establish their local program priorities and develop their local OSS development and management plans. By working through this planning process the LHJs should establish priorities for each of the various elements, objectives and activities of the Plan. At the end of each section the LHJ should summarize prioritized activities, identify where resources will be applied and provide a means for measuring the success of each activity. Parts 1 through 5 of this guidance are in effect worksheets for Part 6, which is the Management Plan. Finally, a checklist is included to help ensure all issues are considered and described in the plan. The department will use the completed checklist to review each plan for completeness.

Additionally, the LHJs are directed to section 16 at the end of [WAC 246-272A-0015](#) regarding water conservation and options for nonpotable reuse of gray water.

“WAC 246-272A-0015 (16) – In the Plan required in subsection (1) of this section and in local regulations, the local health officer may address water conservation and include options for the nonpotable reuse of gray water. Any treatment and dispersal of gray water outside the residence or structure must comply with this chapter.”

The State Board of Health directed each LHJ to consider options for the use of gray water within their jurisdictions as part of their development and management planning process.

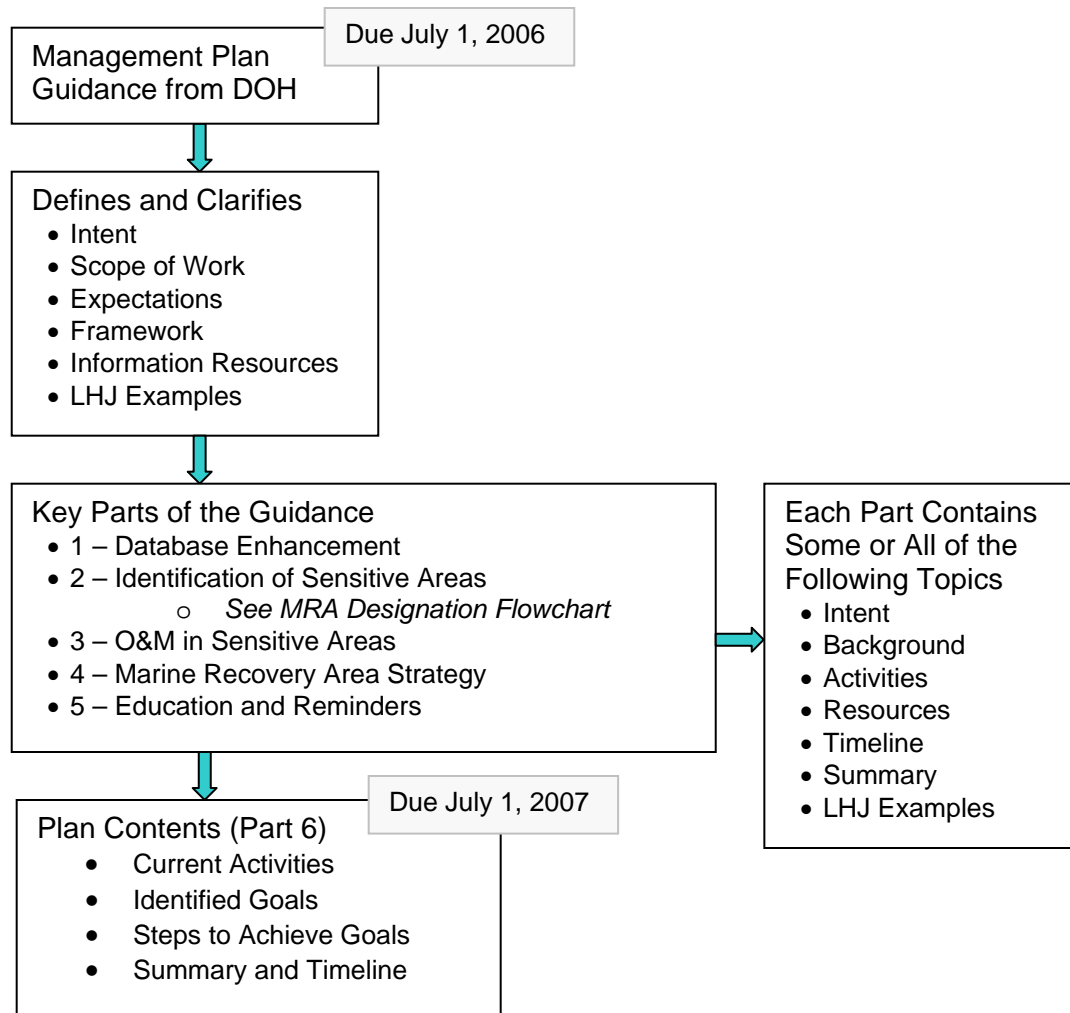
Process and Timeline

The rules and legislation require the local health officer of health jurisdictions in the twelve counties bordering Puget Sound to develop their local management plans by July 1, 2007. After the plan has been approved by the local board of health following a public hearing the health officer shall submit a copy of the Plan to DOH and to all entities responsible for land use planning and development regulations in the jurisdiction. DOH will review each plan for completeness and recommends that the LHJ submit a draft plan for review before presenting it to the local board of health to avoid the need for additional hearings.

The local jurisdictions must determine if their Plans will trigger the State Environmental Policy Act (SEPA). SEPA environmental review is required for all "agency actions" unless specifically exempted by the SEPA rules or statute. Jurisdictions should conduct their own reviews. For more information see Appendix D.

The Plan needs to include a timeline with benchmarks to illustrate the progression of activities. The timeline should span the period from when the Plan is approved to when the LHJ expects to achieve identified objectives. The Plan timeline should be useful to the LHJ for securing additional resources necessary to complete the objectives described in the Plan.

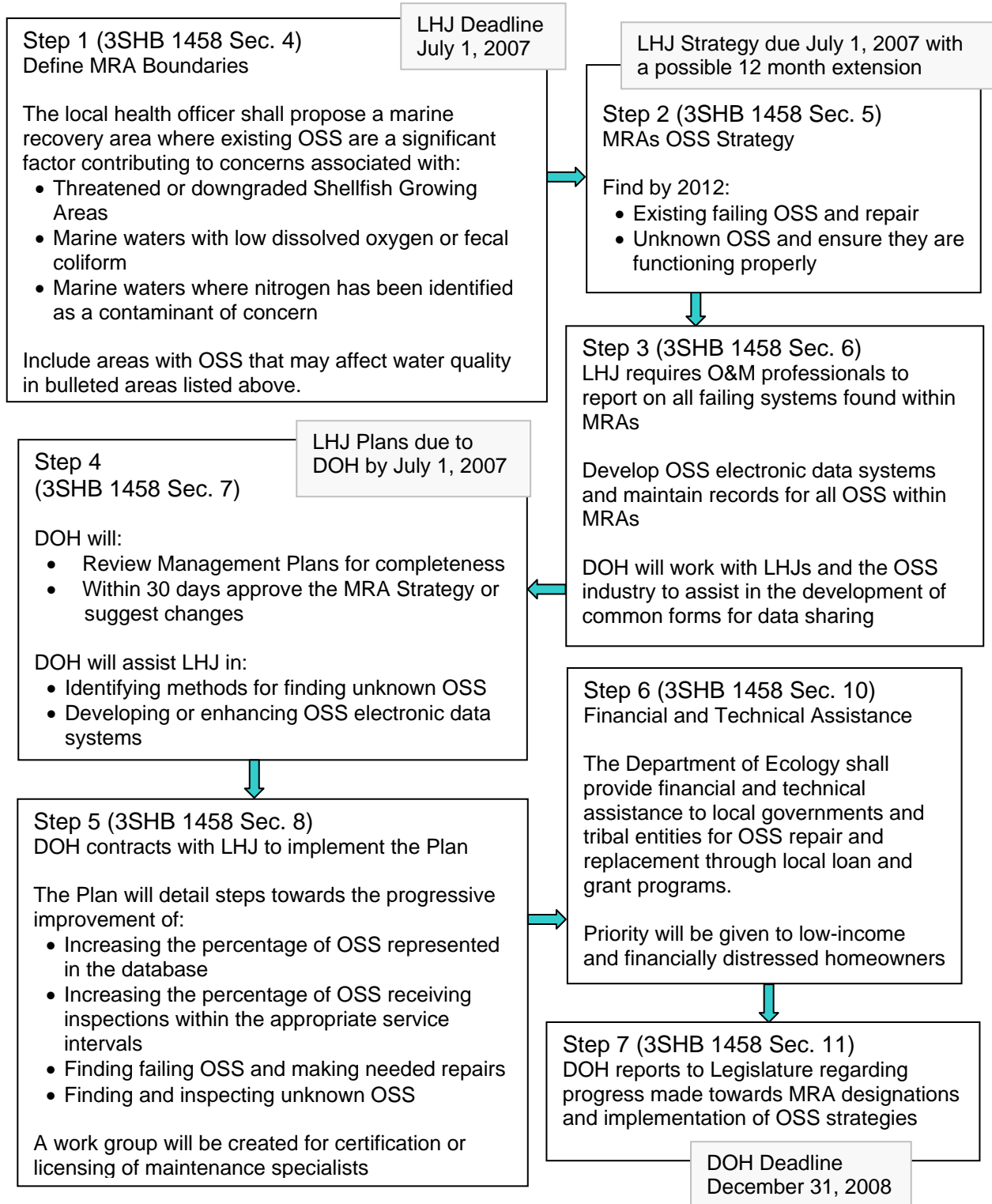
Management Plan Guidance Flowchart



MRA Designation Flowchart

- Third Substitute House Bill 1458 (a New Chapter in Title 70 RCW)

DOH will write guidance for Marine Recovery Areas (MRAs). This flowchart is specific to the needs of this management plan guidance.





Part 1 – Database Enhancement

Part 1 of this guidance addresses OSS and O&M record keeping activities necessary to maintain an OSS inventory within the jurisdiction. These activities include the resources necessary to implement the database components of the plan.

This part of the guidance relates to the following elements of WAC 246-272A-0015(1):

- (a) Progressively develop and maintain an inventory of all known OSS in operation within the jurisdiction.
- (f) Maintain records required under this chapter, including of all operation and maintenance activities as identified.
- (h) Describe the capacity of the local health jurisdiction to adequately fund the local OSS plan, including the ability to find failing and unknown systems.

Intent

The rule intent is for each LHJ to have accurate and accessible records of all OSS within their jurisdictions. It also requires jurisdictions to plan how they will identify unknown and failing systems, and describe the resources needed to adequately fund and implement this part of the Plan.

Background

A review of the database is an opportunity for the jurisdiction to explore what additional information may be desired from the OSS database management system in the future. Over time, there will be more data and the function of the database may change. There are potential advantages to maintaining OSS permitting data and Operation, Monitoring and Maintenance data in one database. If this would benefit your jurisdiction, you may want to consider needed changes to your database when discussing the nature of your system below. The department can assist with the discussion of future data needs and much can be learned from exchanging information with other jurisdictions.

So that the effectiveness of further developments in database system software, hardware and data can be evaluated, it is necessary to document the current status of the database system(s) used to maintain and query the LHJs OSS data. In the discussion of Part 1 the following definitions will be used:

OSS Definitions

Unknown OSS (this is a new definition from 3SHB 1458)

“Unknown System means an on-site sewage disposal system (or OSS per [WAC 246-272A](#)) that was installed without the knowledge or approval of the local health jurisdiction, including those that were installed before such approval was required.”

Known OSS (interpretation from 3SHB 1458)

“Known system means an OSS that was installed with the knowledge or approval of the local health jurisdiction. Known OSS include conforming and nonconforming systems.”

[Chapter 246-272A WAC](#): “Conforming system” means any on-site sewage system or component, meeting any of the following criteria:

- (a) In full compliance with new construction requirements under this chapter; or
- (b) Approved, installed and operating in accordance with requirements of previous editions of this chapter; or
- (c) Permitted by the waiver process under WAC 246-272A-0420 that assures public health protection by higher treatment performance or other methods.

Assumed OSS (for the purposes of inventorying OSS)

“An assumed OSS has no records but through GIS analysis an OSS can be assumed to exist on a parcel.”

The “Assumed” category of OSS falls between the Known and the Unknown. It is an estimate or best guess where there are no permitting records but some data exists to indicate an OSS is likely present. Some assumed OSS are generated through more robust methodology than others. For example, a parcel that is not within a sewer district boundary and has some assessed improved value might be thought to have an OSS and is assigned an Assumed OSS. Another parcel data set might include a Land Use code that indicates the parcel has an inhabited structure. An Assumed OSS assigned to this parcel would be more reliable than the former example. An Assumed OSS is more valuable than an Unknown OSS for mapping and analysis purposes but this type of data is not necessarily reliable. This definition is intended to distinguish between those records for which identified OSS are known to exist and records that are generated from some process which may be prone to error. Maps created showing Assumed OSS should indicate where OSS are calculated.

Activities

A. Inventory

In this Part there is a discussion of the current OSS database environment. The current OSS reporting capabilities will be addressed, which will be useful in gauging needed changes to achieve desired goals, such as the electronic access of an OSS inventory with the ability to query OSS on the basis of location, age and type for the management of OSS within the jurisdiction.

Below are topics and questions guiding the development of the Plan. Following some questions are further explanations or examples of possible answers. These are indicated by a light bulb. Answering the questions below will help prioritize activities and provide a profile of the OSS Database capabilities.

I. Current OSS Database

a. What database software is used to store and query OSS data?

💡 The software relates to capability, (such as the ability to export records to other formats, licensing fees) and scalability (the ability to scale to support larger volumes of data and more users).

💡 If the database software is custom, briefly describe the database. In what format is the data stored? Can records be exported to other formats?

b. Is a backup procedure in place to ensure data is not lost?

c. Are the OSS records stored in a permitting database or in an independent database?

💡 The function of the database relates again to scalability. If the database has other functions besides managing OSS records then the process of making changes to suit OSS needs may be more complex than if the OSS records were in their own database.

1458 Requirement, Section 6(2)

A marine recovery area on-site sewage disposal electronic data system must be compatible with all OSS electronic data systems used throughout a local health jurisdiction.

This may involve an assessment of all databases containing OSS data within the jurisdiction and making adjustments to the LHJs' database environment.

d. What field in the OSS database can be used to calculate the OSS age? What is the earliest OSS installation recorded in the database?

- 💡 The age relates to a risk factor that can be assigned to the OSS and, with location information, can be mapped. For example, a map of OSS with age may show a cluster of OSS greater than 30 years of age near a shoreline. This may help the LHJ procure funding for mitigation efforts such as a Large On-Site System that could serve the needs of the community and be a safer alternative for the shoreline.
 - 💡 The earliest OSS installation relates to the LHJs' queryable OSS history and provides database environment background information. It is likely that older records exist in a paper file and as they are entered into the database the answer to this question may change.
- e. How regularly is the OSS database maintained? Maintenance might include adding new information to existing records, resolving duplicate records, updating parcel numbers, correcting misspellings, etc.
- 💡 Maintenance schedules relate to the quality of data at any given time. If the OSS records are evaluated and updated once a month then each record is potentially one-month out of date. Furthermore, the maintenance schedule also reflects the speed at which the OSS database can be made current. A database that is one-month out of date would take longer to make current than a database that is maintained weekly. It is possible that database records are updated as needed with no systematic review of the database contents. In this case it is more difficult to assess the time needed to remove duplicate records, correct misspellings and, in general, make the database current.
- f. Who is responsible for maintaining the OSS database and how quickly can they make changes to the database or export data?
- 💡 The employee(s) responsible for the administration of the OSS database relates to priorities and accessibility of the responsible employee. If the OSS database is maintained by LHJ staff then they are likely more responsive to the needs of the LHJ. A database administrator concerned with the needs of many agencies may not be able to quickly respond to LHJ concerns.
- g. What is the current number of OSS records in the database?
- 💡 The number of OSS records in the database reflects the number of known OSS installed within the LHJ, understanding that there may be duplicate records and OSS may have been permitted but were never installed. This number, in combination with an estimate of the total number of OSS in the jurisdiction can provide an estimate of the percentage of OSS in the LHJ represented in the OSS database.
- h. What is the assumed or best-guess total number of OSS within the jurisdiction? Describe how this number is derived.
- 💡 The best-guess total number of all OSS and the total number of known OSS in the LHJ can help estimate the number of unknown OSS. This number can be used to estimate the length of time until all OSS are known through various processes, active and passive.
- i. Can the location of each OSS in the database be reported, either by coordinates or a GIS data set?

- 💡 The locations of the OSS are necessary to determine their proximity to sensitive areas and to map OSS in the LHJ.
- 💡 OSS location data would also be valuable to DOH for purposes of mapping in relation to drinking water wellheads, aquifers and shellfish areas as well as providing perspective on the current OSS environment on a regional scale.

1458 Requirement, Section 5(2)

Describe how all OSS in each MRA will be located.

- 💡 Steps in one possible GIS process
 - Identify MRAs using the criteria in Part 2 and create a spatial data set
 - Select all parcels within the MRA
 - Use the selected parcels to query OSS records
 - Where parcels do not have an associated OSS record further research will be required. This might include mailings, workshops or site surveys.
 - While this type of analysis is described for MRAs it would also be beneficial for all sensitive areas.

- j. What is the current capacity to report the type of OSS? Are they recorded as generic types or, if proprietary systems, specific makes and models?
 - 💡 Like age, the type also relates to a risk factor that can be assigned to the OSS. Some OSS types require more frequent attention by an O&M provider. Combined with location, the OSS types can be mapped and those near or within a sensitive area can be identified for more scrutiny.

II. Adding and Updating Records in the OSS Database and Identifying Unknown OSS

Adding and updating records refers to the process by which Unknown and Assumed OSS, through an active or passive approach, become identified and added to the OSS database.

- a. What is the process by which OSS records are added to the database? This would include older systems for which there are no permitting or other records as well as new installations. For unknown systems, this might include an active approach where surveys or programmatic site inspections are performed. A passive approach would include inspections during property transfer, during sanitary surveys, in response to complaints, when the owners of the systems apply for building or repair permits, or through O&M reporting.
 - 💡 The method by which new OSS records are added to the database relates to the rate the database grows over time and would allow for an estimation of when all OSS in the LHJ would be included in the database.
 - 💡 Another consideration is the OSS that becomes inactive when the residence is connected to sewer service. An attribute in the record might indicate the OSS is no longer active. In either case, steps should be taken to ensure the OSS is no longer reported as active on maps or in reports.

- b. If there are OSS records only on paper, what process is used to enter them into the database? An active approach might be to assign an employee the task of entering records from the paper files. A passive approach might be entering those records when there is another reason to pull them from a file. Another approach might be to scan the paper records and attach the digital copy to a database record. The record would not be queryable but it would be easily available for future data entry.

💡 The process by which paper records are added to the OSS database relates to an estimate of when all OSS records can be mapped and are queryable.

B. Operation & Monitoring - Record Maintenance

Accurate and accessible records of O&M activities improve the jurisdiction's ability to evaluate systems, conduct public health prevention efforts such as education, provide maintenance reminders, and track operating permits.

1458 Requirement, Section 6(1)

Describe how the LHJ will ensure that O&M providers or others performing OSS inspections submit inspection results to the LHJ regarding any failing system in a timely manner.

O&M record keeping activities might differ depending on risks to sensitive areas. When an OSS has the potential to negatively impact a sensitive area the following measures might be components of an OSS strategy within the area.

- 💡 Requiring the OSS owner to secure and renew contracts for periodic maintenance.
- 💡 Requiring the OSS owner to assure a complete evaluation of the system components and/or property to determine functionality, maintenance needs and compliance with regulations and any permits ([WAC 246-272A-0270](#) (1) (d)):
 - At least once every three years for all systems consisting solely of a septic tank and gravity system.
 - Annually for all other systems unless more frequent inspections are specified by the local health officer.

Partnerships between private O&M providers and the LHJ may be explored to facilitate O&M record reporting. Currently some jurisdictions receive O&M reports electronically and some have established incentives for reporting electronically. This results in faster access to failing systems and can ease the burden on the LHJ allowing them more time to focus on O&M report oversight, follow-up and community outreach.

The questions and statements below are intended to create a profile of existing O&M record keeping activities.

- I. Describe the jurisdiction's current O&M requirements.
 - a. What types of OSS require the filing of O&M reports? For instance, are O&M reports required for proprietary treatment systems but not systems consisting of septic tanks with gravity drainfields?

- 💡 This relates to the completeness of the O&M database.
 - b. What is the minimum information required of the O&M provider when submitting a service report to the LHJ?
 - 💡 This would be information necessary for the LHJ to verify that the OSS is functioning appropriately.
 - c. How do O&M providers deliver reports to the LHJ? Are they entered electronically or delivered on paper?
 - 💡 This relates to the currentness of the database. Paper records require keying and transmitting the reports electronically reduces error because data is only entered once.
 - d. Can the O&M database report OSS service histories and, if not, when might this capability exist?
 - 💡 This relates to a mechanism to generate and send service reminders to OSS owners.
 - e. How does the jurisdiction assure that reports of failure are received in a timely manner?
 - 💡 This relates to the speed at which the O&M providers inform the LHJ of failing systems. The faster an O&M provider reports a failure to the LHJ the more quickly the LHJ can act to resolve the issue.
- II. Describe the current database system for maintaining O&M records, if one exists.
- a. O&M database environment
 - 💡 This is comparable to the question regarding the OSS database above: Database software used, maintenance schedule, making old records current, and adding records.
 - b. Are O&M records stored in a permitting database or an independent database?
 - 💡 Ideally there would be an OSS Database that stores all records relating to systems, such as system type, installation date, capacity, site characteristics and so on. This database would also include O&M records such that all OSS related questions could be answered by querying a single database. If there is no single OSS database are there plans to migrate to such a system?
 - 💡 Commonly OSS records are stored in a database that was created for another purpose, such as permitting. While this is fine for permitting information, not all records pertaining to OSS fit neatly into a permitting database. Has this presented a challenge in maintaining an OSS inventory? What is the plan for resolving these issues if they exist? Have there been advantages to keeping OSS and O&M records in separate databases?
- III. Describe the ways in which OSS and O&M data are currently used within the LHJ. Examples might include:
- 💡 O&M data can be used to generate information for enforcement activities.

- 💡 O&M data are used to create targeted mailings reminding residents of the type of system they have and the O&M requirements they must satisfy or that their OSS has not been serviced within the recommended period.
- 💡 An OSS that was reported as failing in an O&M report will be flagged for investigation.

IV. What additional or planned changes, if any, will be made to the data system(s)?

a. Describe planned methods of maintaining and updating O&M records.

- 💡 This relates to changes to, or the creation of, an O&M database. A desired O&M database could be described here with the resources necessary to achieve the goal described below under Resources for Part 1.

b. How will data be queried and evaluated for follow-up?

- 💡 This relates to the method by which OSS are identified using the O&M data.

c. How will insufficient or lacking O&M reports be acted upon by the LHJ?

- 💡 This relates to actions taken by the LHJ in response to O&M reports that are missing information or have not been submitted by the provider.

Once the objectives of the Plan have been met, what new capabilities will the enhanced database possess?

- 💡 The LHJ might have the capacity to
 - Identify all OSS within a Marine Recovery Area or other sensitive areas and track O&M activity for those systems
 - Create a map of OSS within their jurisdiction
 - Examine the location of older OSS in relation to soil types within the jurisdiction for targeted O&M reminders

Resources Necessary to Implement Data Components of the plan

A discussion of the following activities will provide the LHJ an opportunity to describe their capacity to implement the Plan.

A. Enhancements to Hardware, Software and Data

What changes to computer hardware will be necessary?

- 💡 Possibly desktop computers or servers will be procured, software will be purchased or created, or existing data and databases will be updated.

B. Personnel

What changes to personnel, if any, will be necessary for data or database development?

- 💡 Possibly new personnel will be added or existing personnel will receive training.

Timeline

A timeline of prioritized activities will provide the LHJ with an opportunity to describe the accomplishments of the Plan implementation.

Summary of Database Activities

Provide a brief narrative describing the prioritized goals and activities and the resources needed to implement these activities.

Examples of LHJ Activities

- [Snohomish](#) County– Database includes digitized as-builts linked to property tax numbers and all available online.
- Mason County– Uses a commercial web-based database for their O&M data and a common permitting database. They can export data from each system and tie to a parcel number to create a complete picture of the OSS, though not every record is complete.
- King County– At property transfer, the seller must record a Notice of On-site Sewage System Operation and Maintenance Requirements (OSSM) which describes the owner's responsibilities for maintaining the system. The seller gives a copy of the recorded OSSM to the buyer. Notice to Title is recorded describing the O&M requirements. When property is transferred a fee is charged by the health department.
- Island County – Every property in Island County on OSS has to be inspected and records updated before sale.



Part 2 – Identification of Sensitive Areas

In Part 2 each LHJ will describe how they identify sensitive areas (including Marine Recovery Areas) where OSS could increase risk to public health. How knowledge of these sensitive areas is integrated into the OSS programs is also addressed, along with a discussion of how the LHJs coordinate with local planning agencies.

This part of the guidance relates to the following elements of WAC 246-272A-0015(1):

- (b) Identify any areas where OSS could pose an increased public health risk. Prioritized areas are listed below.
- (i) Assure that the Plan was developed to coordinate with the comprehensive land use plan of the entities governing development in the health officer's jurisdiction.
- (h) Describe the capacity of the local health jurisdiction to adequately fund the local OSS plan, including the ability to find failing and unknown systems.

Intent

The rule intent is for each jurisdiction to identify existing and potential new areas where OSS could pose a risk to public health so that measures can be planned to mitigate the risks. It is also the intent that each LHJ coordinate activities and share information with their local planning departments, especially about these areas.

Background

Most of the sensitive areas have been determined through county and incorporated city comprehensive planning activities. The activity within Part 2 intends for the health jurisdiction to identify areas where OSS could present an increased public health risk. Once these sensitive areas are identified, the LHJ can establish the degree of OSS management needed to protect public health. Appendix C contains definitions for sensitive areas with links to more information.

The use of OSS affects and is affected by local land use and growth management plans. Thus, local OSS rules and management plans need to be coordinated with those entities within the jurisdiction responsible for land use planning. The Plan will address the method(s) by which the LHJ collaborates with the relevant planning departments regarding the development of the Comprehensive Land Use plans and describes how sensitive areas have been or will be defined.

Below are topics and questions guiding the development of the Plan. Following some questions are further explanations or examples of possible answers. Answering the questions below will help prioritize activities and provide a profile of the sensitive areas within the jurisdiction.

Activities

A. Description of the Jurisdictional Environment

This section of the Plan provides a context for a discussion of sensitive areas. It includes a brief description of geography, population centers, and projected growth patterns.

Describe the following key features and, where appropriate, affect they have on the OSS management program within the jurisdiction. It would be helpful to include maps. It is likely these are available in existing Comprehensive Plans.

- I. Jurisdictional boundary
- II. Land Uses
- III. Demographics and socioeconomic environment
- IV. Drainage (Topography/ Geology and soils/Hydrography/Wetlands/Flood plain/ Aquifers/Watershed (HUC, WRIA, etc.))
- V. Population Density (Population growth/Urban Growth Areas/ Population estimates/population centers/ Overview of sewerred and unsewerred areas)
- VI. Water Supply/Quality

B. Designating Sensitive Areas

This section of the Plan describes how the LHJ identifies areas where OSS could pose an increased risk to public health. Maps of these areas should be included in the Plan.

Identify any areas where OSS could pose an increased public health risk. Describe the risk assessment methodology by which all sensitive areas and land use planning actions in the jurisdiction are identified. Also address the coordination with other jurisdictions, agencies and stakeholders. Include Marine Recovery Areas in this discussion. The following areas shall be given priority in this activity: (see Appendix C for definitions and descriptions):

- a. Shellfish protection districts or shellfish growing areas;
- b. Sole source aquifers designated by the [U.S. EPA](#);
- c. 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;
- d. Designated wellhead protection areas for Group A public water systems;

- e. 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](#);
- f. 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;
- g. Wetland areas under production of crops for human consumption;
- h. 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](#);
- i. Areas where nitrogen has been identified as a contaminant of concern; and
- j. Other areas designated by the local health officer such as Marine Recovery Areas. (3SHB 1458 Section 3 requires Marine Recovery Areas to be identified by July 1, 2007)

3SHB 1458, Section 4

(1) The local health officer shall propose a marine recovery area for those land areas where existing OSS are a significant factor contributing to concerns associated with:

- (a) Shellfish growing areas that have been threatened or downgraded by the department under [chapter 69.30 RCW](#);
- (b) Marine waters that are listed by the department of ecology under section [303\(d\)](#) of the federal clean water act (33 U.S.C. Sec.1251 et seq.) for low-dissolved oxygen or fecal coliform; or
- (c) Marine waters where nitrogen has been identified as a contaminant of concern by the local health officer.

(2) In determining the boundaries for a marine recovery area, the local health officer shall assess and include those land areas where existing on-site sewage disposal systems may affect water quality in the marine recovery area.

See Appendix B for the full text of 3SHB 1458.

DOH will publish additional guidance relating to the designation of Marine Recovery Areas in the Fall of 2006.

C. Coordination with Planning Entities within the Jurisdiction

In this Part the LHJ discusses how they coordinate with the planning entities in the jurisdiction regarding OSS development and strategies.

- I. With what planning agencies within the jurisdiction does the LHJ coordinate?
 - 💡 This may include such planning agencies as: county or city planning departments, state or federal agencies and the tribes.
- II. How does the LHJ coordinate with the county and city planning departments in the preparation of the Comprehensive Land Use plan?

- 💡 Possibly LHJ staff are collocated within the Planning department.
- 💡 Permitting processes might require the LHJ to approve construction applications.
- 💡 Updates to the Comprehensive Land Use plan might involve input from the LHJ.

III. In what ways can coordination between the LHJ and planning departments be enhanced regarding revisions to the Comprehensive Land Use plans?

IV. How is it assured that local OSS regulations and land use plans include the same goals and standards identified in the Plan?

D. State Environmental Policy Act Review

The local health jurisdiction is required to conduct a State Environmental Policy Act (SEPA) review, unless specifically exempted, to determine if the management plan constitutes an “action.” Using a checklist the LHJ will determine if there are any significant adverse environmental impacts from their “action.” Appendix D contains more information, including a link to SEPA forms and the Environmental Checklist.

Resources

Describe the resources necessary to designate sensitive areas, coordinate with planning entities and conduct a SEPA review. A discussion of the following activities will provide the LHJ an opportunity to describe the capacity to implement the Plan.

I. Personnel

What changes to personnel, if any, will be necessary?

- 💡 Possibly new personnel added or existing personnel will receive training.

II. Consultants

What help might be needed with MRA designation?

Timeline

A timeline of prioritized activities will provide the LHJ with an opportunity to describe the accomplishments of the Plan implementation.

Summary and Prioritization of Activities

Provide a brief narrative describing the current ability and future goals to identify sensitive areas and coordinate with other agencies. Describe which, if any, of these goals cannot be met at this time and what resources are necessary to meet them.

Examples of LHJ Activities:

- Clallam County – Two LHJ employees are housed in planning and interact daily on Comprehensive Plan issues and work with the incorporated cities and tribes.
- Snohomish County – The building department issues the permit. They verify the project conforms to zoning and planning restrictions including those under the Growth Management Act (GMA).
- Whatcom County– The LHJ has a half time FTE for onsite issues housed within the planning department (GMA). County is working toward a one-stop permit center: an integrated review of building site and OSS applications, including review of critical areas.
- Island County – Health wrote much of the island Critical Aquifer Recharge Area (CARA) ordinance and works closely with planning to define other Critical Areas.
- Thurston County – Henderson Watershed Protection Area is established as an Area of Special Concern with O&M based on risk.
- [Jefferson](#) County – All sensitive areas are mapped and on-line.
- Skagit County – Their program finding and restoring failing systems in the Similk Beach area has found success through community involvement. This strategy intends to minimize enforcement.



Part 3 – Operation, Monitoring and Maintenance in Sensitive Areas

In Part 3 the LHJ will consider whether their O&M requirements are adequate to protect public health.

This part of the guidance relates to the following elements of WAC 246-272A-0015:

- (1) By July 1, 2007, the written plan must specify how the LHJ will:
 - (c) Identify operation, maintenance and monitoring requirements commensurate with risks posed by OSS within the geographic areas identified in element (b). [Part 2 of this document].
 - (g) Enforce OSS owner permit application, operation, monitoring and maintenance and failure repair requirements defined in [WAC 246-272A-0200\(1\)](#), [246-272A-0270](#), [246-272A-0275](#), and [246-272A-0280](#) (1) and (2).
 - (h) Describe the capacity of the local health jurisdiction to adequately fund the local OSS plan, including the ability to find failing and unknown systems.

- (7) In order to implement the Plan, the local health officer may require the owner of the OSS to:
 - (a) Ensure additional maintenance and monitoring of the OSS;
 - (b) Provide dedicated easements for inspections, maintenance, and potential future expansion of the OSS;
 - (c) Place a notice to title identifying any additional requirements for OSS operation, maintenance and monitoring; and
 - (d) Have an inspection of the OSS at the time of property transfer including the preparation of a "record drawing" if necessary.

Intent

The intent of Part 3 is for local jurisdictions to demonstrate an effective process to consider sensitive areas when reviewing OSS permit applications and establish O&M requirements

commensurate with the potential impact of OSS in these areas. Enforcement and resource issues of all OSS management activities will be considered.

Background

This Part extends the LHJ practice of OSS management beyond the existing practice of linking the site conditions with the OSS treatment device for permit approval. Permit approval will also include ensuring that O&M requirements are commensurate with risks posed within sensitive areas as described in Part 2. This section includes an assessment of O&M practices in the sensitive areas to ensure protection of public health.

Local regulations contain requirements that specify what is necessary to help ensure OSS are properly sited, designed, installed, operated, monitored, and maintained. [WAC 246-272A](#) provides the minimum requirements that apply to all OSS in Washington State. LHJ regulations frequently contain additional requirements unique to each local jurisdiction. Effective enforcement of applicable requirements is inherent to the success of program activities directed at minimizing the risk of failing systems.

In this Part there is a discussion of the current policy establishing O&M requirements throughout the jurisdiction. This will allow the current assessment of risk to be addressed and will be useful in identifying any changes needed to achieve desired results.

Below are topics and questions guiding the development of the Plan. Following some questions are further explanations or examples of possible answers. Answering the questions below will help prioritize activities and provide a profile of the O&M program.

Activities

A. Current O&M Requirements common to all areas throughout the LHJ

- I. Describe the LHJ's current O&M program requirements as they apply to all OSS within the jurisdiction.
 - 💡 O&M requirements might be assigned to OSS based on:
 - Site Conditions
 - OSS Type
 - Local Rule Requirements
- II. Are there deficiencies in the current O&M program that will be addressed in the Plan?

B. Sensitive Area O&M Requirements

- I. Describe the LHJ's current O&M requirements for OSS within sensitive areas.
- II. Is the O&M program currently sufficient to protect public health in sensitive areas designated in Part 2?

- III. What operation, monitoring, and maintenance mitigation measures will be required within sensitive areas that are not required in other areas?
- IV. Will O&M requirements differ between types of sensitive areas? Would two systems of the same type have different O&M requirements if they were in different sensitive areas or will all sensitive areas receive the same O&M mitigation measures?

C. Enforcement activities

- I. Describe the current and proposed methods to enforce the application, operation, monitoring, and maintenance requirements.
 - 💡 This might include an O&M permit program requiring periodic system inspection and reporting.
- II. How will planned enforcement practices be evaluated for effectiveness?
 - 💡 This might include the number of OSS that have been found, evaluated and repaired as necessary.
 - 💡 One metric might be the speed at which failed OSS are reported to the LHJ
 - 💡 This could include the number of OSS in compliance with required O&M.

Resources

Describe the resources necessary to:

- Develop O&M requirements for OSS within sensitive areas.
- Enforce O&M requirements for all OSS in the jurisdiction and any extra requirements within sensitive areas.
- Evaluate effectiveness of existing and planned enforcement practices including the submittal of reports of failing OSS within MRAs.

Timeline

Describe a timeline of prioritized activities, detailing the accomplishments of the Plan implementation. Include benchmarks which will assist the LHJ in measuring performance and identifying where adjustments in program activities and resources are needed.

Summary and Prioritization of Activities

Provide a brief narrative of the previous activities listed in Part 3. This section describes resources needed to implement O&M activities in sensitive areas. The Plan should identify what resources will be initially available and what additional resources are needed.

Examples of LHJ Activities

- Kitsap and Island Counties – Designers verify that the site is not in a sensitive area.
- Kitsap County – Conducts sanitary surveys and workshops to assess all OSS in priority areas. These can take 2 to 3 years to complete with excellent results (98% compliance).
- Jefferson County – Local code includes an Evaluation of Existing System requirement at the time of sale. This can be done by a county licensed O&M professional or by the health department. The PUD does all the monitoring of the non-conventional systems and electronically submits the reports.
- King County – Some proprietary OSS use automated systems, which, through remote data transmission, result in an O&M report to the LHJ. Also, the Notice to Title program is effective in educating new OSS owners about O&M requirements.
- Mason County – O&M providers report electronically directly into a web-based database application. There is no charge for electronic submittals and a small charge for paper submittals.
- San Juan County – The LHJ prioritizes enforcement activities based on potential risks of OSS within sensitive areas and licenses its installers and O&M professionals. Pumpers report failures, and where, when and how much was pumped on all systems.
- Pierce County – O&M Program priorities are risk based:
 - Low Risk: Single family gravity or pressure (does not include proximity to sensitive areas).
 - Moderate Risk: Small shared system or mound – inspected every 3 years with a fee.
 - High Risk: Large commercial facilities, schools, where the public has access, food establishments or special highly technical systems – inspected once per year with a fee that differs between systems.



Part 4 – Marine Recovery Area Strategy

In Part 4 each LHJ with an identifiable Marine Recovery Area within their jurisdiction will develop a Marine Recovery Area On-Site Strategy to guide in the management of all OSS within the MRA.

A Marine Recovery Area Strategy Guidance Document will be published by the department in the Fall of 2006.

This part of the guidance relates to Sections 5 through 8 of 3SHB 1458. (For the full text of 3SHB 1458, see Appendix B.)

Intent

The purpose of the Marine Recovery Area Strategy is to enhance local OSS programs in MRAs by inventorying OSS, requiring the inspection of OSS, repairing failing OSS, developing electronic data systems capable of sharing information regarding OSS, and monitoring these programs to ensure that they are working to protect public health and Puget Sound water quality.

Background

In Part 2 of this guidance, the local health officer proposes a marine recovery area for those land areas where existing OSS are a significant factor contributing to concerns associated with:

- (a) Shellfish growing areas that have been threatened or downgraded by the department.
- (b) 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.
- (c) Marine waters where nitrogen has been identified as a contaminant of concern by the local health officer.

When designating the boundaries of the Marine Recovery Area the local health officer will include areas with OSS that may affect water quality in the land areas listed above.

Once the MRAs have been designated, an OSS strategy is written to aid in the development and management of all existing OSS within Marine Recovery Areas within the jurisdiction. The on-site strategy, as a component of the Plan must be submitted to the department by July 1, 2007, to ensure that all required elements including designation of any Marine Recovery Areas, have been addressed. Within 30 days, the department shall either approve the on-site strategy or provide in writing the reasons for not approving the strategy and recommend changes. . DOH will enter into a contract with each LHJ to implement Plans to develop or enhance electronic data systems (3SHB 1458 Section 8).

Below are topics and questions guiding the development of the Plan. Following some questions are further explanations or examples of possible answers. Answering the questions below will help prioritize activities and provide a profile of the Marine Recovery Area Strategy.

Activities

A. Marine Recovery Area on-site strategy (3SHB 1458 Section 5)

Describe the OSS strategy for Marine Recovery Areas showing specifically how the local health jurisdiction will by July 1, 2012, and thereafter, find:

- (a) Existing failing systems and ensure that system owners make necessary repairs.
 - (b) Unknown systems and ensure that they are inspected as required to ensure that they are functioning properly, and repaired, if necessary.
- I. Describe how OSS within an MRA will be managed. Specifically: How will the LHJ find all OSS in the MRA and include them in the database?
 - 💡 This may involve GIS processes to select all parcels within MRAs and querying the relevant OSS permitting data for those parcel numbers. Where a parcel has no OSS permitting data, possibly an O&M report would suffice. Where there are neither permitting nor O&M data the parcel owners may have to be contacted.
 - 💡 Section 7 of 3SHB 1458 directs the department to assist LHJs in identifying reasonable methods for finding unknown systems.
 - II. How will each OSS be evaluated to assure it is functioning properly?
 - 💡 The LHJ might discuss methods currently used to evaluate OSS functionality and what other methods within MRAs would be used, if any.
 - III. How will failing systems be found and repaired?
 - 💡 Failing systems are currently found through passive and active measures. Passive measures include inspections at the time the property is transferred and when complaints are reported. Active measures to identify the functionality of all OSS within an area may involve sanitary surveys. Active measures are most effective if the community is involved and supportive of the endeavor. Sanitary surveys can be very successful but are expensive and time consuming.

- 💡 Another option may be to accept a recent O&M report as evidence that the OSS is functioning appropriately.

IV. What additional requirements will there be within MRAs?

- 💡 The LHJ should decide what additional reporting and O&M requirements will be placed on all OSS within MRAs.

V. How will the LHJ address an OSS when the owner will not provide information or that information does not exist?

- 💡 The LHJ should describe activities to verify that all OSS within MRAs are functioning appropriately. This includes initial educational materials, letters requesting information on the OSS, and requests from pumpers and other O&M professionals.

B. Electronic data system of OSS within an MRA, (3SHB 1458 Section 6)

The following questions and topics relate to how information about existing OSS in MRAs is managed.

I. How will an OSS maintenance specialist, septic tank pumper or others performing O&M in an MRA submit reports of any failing system to the LHJ?

- 💡 Describe the current requirements for reporting failing OSS. Can improvements be made? Is it clear when a problem needs reporting? Are there specific activities or tools the department can provide to assist the LHJ find failing systems?

II. The department shall work with LHJs and the OSS industry to develop common forms and protocols to facilitate sharing of data on MRAs.

III. Ensure the electronic OSS data systems for each MRA are compatible within the jurisdiction (this does not mean that the MRA data needs to be stored in a separate database).

- 💡 This is also addressed in Part 1.
- 💡 One of the intents of 3SHB 1458 is for the jurisdiction to develop electronic data systems capable of sharing information regarding OSS within MRAs.
- 💡 There may be data regarding OSS within the jurisdiction stored in a variety of databases and formats. Cities, PUDs or O&M providers may all have databases containing relevant data. A formalized partnership between public and private entities may facilitate data sharing. Data conversion may be an issue when sharing data. This requires technology and staff or consultants with appropriate skills and should be considered when discussing resources.

C. DOH Contracts with LHJ for Marine Recovery Area (3SHB 1458 Section 8)

DOH will enter into a contract with each LHJ subject to the requirements of the statute, to implement Plans and to develop or enhance electronic data systems. The contract will include state funding assistance to the LHJ. The contract will require that within MRAs the LHJs will address the activities below listed (a) to (e).

Describe the current LHJ capacity and the estimated need (personnel, financial assistance, hardware and software, etc.) to meet goals below. List the activities by priority, and show how the LHJ will:

- (a) Show progressive improvement in finding failing systems.
- (b) Show progressive improvement in working with on-site sewage disposal system owners to make needed system repairs.
- (c) Take steps to find previously unknown systems and ensure they are inspected as required and repaired if necessary.
- (d) Show progressive improvement in the percentage of OSS that is included in an electronic data system.
- (e) Show progressive improvement in the percentage of OSS that has had required inspections.

Additional information on these requirements for MRAs will be provided in the MRA guidance to be developed by the department and issued in the Fall of 2006.

Resources

Identify what resources will initially be available and what additional resources are needed to implement the activities described in this part of the Plan, including preparing the MRA OSS strategy. DOH can grant a 12 month extension beyond the July 1, 2007 deadline for the MRA strategy if substantial progress has been made toward completion.

Timeline

Describe the timeline of prioritized activities that will achieve the goals presented in this part of the guidance document.

Summary

Provide a brief narrative describing the prioritized goals and activities and the resources needed to implement the activities discussed in Part 4.



Part 5 – Education

Educating the public about the importance of proper care of OSS, signs of poorly performing OSS and potential risks to public health can reduce the number of failing systems.

This part of the guidance relates to the following elements of WAC 246-272A-0015(1):

- (d) Facilitate education of homeowners regarding their responsibilities under this chapter and provide operation and maintenance information for all types of systems in use within the jurisdiction.
- (e) Remind and encourage homeowners to complete their operation and maintenance inspections.
- (h) Describe the capacity of the local health jurisdiction to adequately fund the local OSS plan, including the ability to find failing and unknown systems.

Intent

The intent of this part is to address the need to educate homeowners of their OSS responsibilities and to remind them of the need for OSS servicing.

Background

Encouraging and reminding OSS owners to check and inspect their systems is an ongoing issue for all local health jurisdictions and local OSS service providers. Even though it is the OSS owner who is responsible for mitigating the risk of their OSS, an educated general public can help identify issues if they know the warning signs of a failing OSS. The recent state rule revisions clarify the homeowner responsibility to maintain their OSS.

In educating the homeowner it may be necessary to develop the capability to address their specific type of OSS. In this way the homeowner can be armed with the most relevant material thereby increasing their effectiveness as the primary caretaker of the OSS. This requires that the LHJ not only has educational material available for all types of OSS within the jurisdiction but can

also determine what type of system the homeowner is responsible for maintaining. This may involve an enhancement to electronic data systems as discussed in Part 1.

An electronic data system may also be instrumental in developing the ability to remind homeowners when it is necessary to attend to the needs of their OSS. Reminder notifications can be helpful in prompting a resident to inspect their OSS and potentially resolve issues before the OSS fails.

Below are topics and questions guiding the development of the Plan. Following some questions are further explanations or examples of possible answers. Answering the questions below will help prioritize activities and provide a profile of the education program.

Activities

A. Current Education

Describe in the Plan the current methods of educating the general public about the risks of OSS to public health.

💡 This might include:

- Classes
- Public Service Announcements
- Bulk Mailings
- Websites
- Links to external educational website materials from such sources as the [EPA](#), [The National Small Flows Clearinghouse](#), [DOH](#), or [Ecology](#)
- Partnering with other groups to provide information to owners, for example the [WSU extension](#)

B. Planned Education

Planned educational efforts are discussed here with an opportunity to mention needed resources below in the Resources portion of this Part.

Describe additional or planned efforts to inform and educate the public of the need to care for OSS.

💡 This might include a projection over the next five years of:

- The number of public advertisements
- General educational mailings
- Participating students in classes
- Website maintenance activities

C. Current Reminders

Describe the current program to remind and encourage homeowners to complete the operation and maintenance inspections of their OSS as required. Include how the LHJ and/or the O&M professionals notify OSS owners of their O&M responsibilities.

💡 This might include homeowner notification:

- When the as-built is submitted
- At the time of sale
- By periodic notification
- Contractor reminders
- Building remodels or expansions

D. Planned Reminders

Planned efforts to remind OSS owners of their responsibilities are discussed here with an opportunity to address needed resources below in the Resources portion of this Part.

Describe additional or planned ways of notifying homeowners to complete the required operation and maintenance of their OSS.

💡 This might include:

- Targeted mailings and site visits
- A method by which users may access their OSS permitting information on-line
- Service contract with O&M providers

E. Measured Effectiveness

This section provides an opportunity to discuss ways in which the effectiveness of the efforts can be evaluated.

Describe how the effectiveness of these targeted outreach activities will be measured for success.

💡 This might include:

- An increase in O&M reports with a reduction of failures
- The LHJ tracking public information calls
- Complaints reported following a community OSS information campaign

Resources

Describe and prioritize resources necessary to achieve the planned goals addressed in Part 5. If additional resources are necessary to continue current efforts discuss those needs as well.

Timeline

Describe the timeline of prioritized activities that will achieve the goals presented in this part of the guidance document.

Summary and Prioritization of Activities

Provide a brief narrative of the planned activities listed in Part 5.

Examples of LHJ Activities

- Clallam and Skagit Counties – Both LHJs offer “Septics 101” classes (OSS owners need LHJ certificate to inspect their own systems).
- Skagit County – Offers OSS owners monetary rebates for system improvements.
- Whatcom County – Has an on-site committee consisting of public officials, O&M designers, shellfish representatives, and others. It meets every two weeks to discuss on-site issues within the jurisdiction.
- Kitsap County – One staff member is responsible for all educational materials and works with the public and many groups including realtors, appraisers and lenders.
- King County – Currently targets outreach to residents in sensitive areas; for example, informational posters regarding on-sites have been placed on buses with routes in sensitive areas.
- Snohomish County – The data system allows the LHJ to provide accurate information on-line to homeowners about maintenance. Information is specific to the type of system and accessible by parcel number (to be completed soon).
- Thurston County – Current homeowner education program includes workshops on OSS O&M, a “Septic Help-Line” for phone consultations, and offers OSS diagnostic help.
- Island County – Database generates a report of septic tanks not pumped in five years and reminders are mailed to OSS owners.
- Pierce County – LHJ classes for new home owners are well attended, especially when held in the local utility facilities and at no charge.



Part 6 – THE PLAN Summary

In this part of the guidance a structure will be described for the development of the management plan. The LHJ will gather the information from the rest of the document to provide an overview of the management plan, and the resources necessary to implement the plan.

The management plan will be written using the responses from each of the parts 1 through 5 of this guidance document. When the plan is submitted to the department the detail from parts 1 through 5 that were not included here would make excellent reference material for inclusion in an appendix.

Intent

The intent of Part 6 is to produce the local management plan describing the strategies necessary to meet the goals established in the rules (272A) and 3SHB 1458.

Background

A complete summary of all database enhancement and management activities detailed in the other parts of this plan will comprise the bulk of a completed Plan.

Some suggested elements of the management plan include the following:

Vision Statement

What is the ideal OSS environment within the jurisdiction? Considering the growth management plans within the jurisdiction, how will OSS management in the future differ from the current reality?

Jurisdictional Goals

What are the specific OSS goals? When will all OSS in the jurisdiction be inventoried? How and when will regular inspections of all OSS be ensured? How will OSS failures

be reduced? What mechanisms will be implemented to provide assistance on all planning actions regarding OSS within the jurisdiction?

Measurable Program Objectives

What are the metrics by which the effectiveness of the plan will be evaluated? These might include the number of OSS records in a database migrated from paper filings, an increase in the number of identified unknown OSS or the number of system failures.

Strategies for Achieving the Objectives

How will the goals be achieved? Perhaps adaptive management practices would be implemented. This is an iterative process for improving management policies by learning from the results of operational programs. Actions are designed so that, even if they fail, they will provide useful information for modifying future actions.

Existing Program Limitations, Deficiencies and Challenges

Goals may be designated based on the deficiencies of current practices. An assessment of current limitations will lead to a discussion of necessary improvements.

Resource Requirements

Once the plan and available resources have been defined, plan elements can be prioritized. A discussion of those plan elements not implemented for lack of resources would be useful to the department in locating additional resources. Resources may include permit fees, grants, software, hardware, personnel, community resources such as volunteers and interns, and other sources. A discussion of all such sources would be appropriate within the plan.

Activities

Summarize activities, goals, steps to achieve goals and necessary resources from Parts 1 through 5. Include a timeline with due dates.

Part 1 - Database Enhancement

Current Activities

Summarize current Database Activities

- OSS database environment: Number of records, new records added annually, estimated total OSS, etc.
- OSS fields used in database: OSS type, installation date, etc.
- Capabilities in working with the data: GIS analysis, permit tracking and the speed at which data can be accessed

Identify Goals

Summarize identified goals

- Changes to existing hardware and software capabilities: number of records, fields used, GIS functionality, new datasets

- Specific enhancements (examples): Ways software, hardware and data will be used to inventory OSS, identify OSS in need of inspection, provide assistance on all planning actions regarding OSS, find failing OSS in MRAs and ensure data compatibility, etc.

Steps to achieve goals

The steps to achieve goals are the heart of the management plan. These steps will be highly individualized depending on the current status of the LHJs' programs and their identified goals. Possible components may include the following:

- Necessary Resources
- Funding Sources
- Community Resources
- Adaptive Management Practices (incremental and iterative changes)

Part 2 – Identification of Sensitive Areas

Before providing a summary of the activities in the jurisdiction regarding sensitive areas the discussion would benefit from a description of the jurisdictional environment. Put the discussion of sensitive areas in the context of the physical and social features that affect OSS management. This may include the following:

- Codified Land Use
- Socioeconomic Demographics
- Population Densities
- Physical environment such as soil types and drainage issues
- Water Supply and Quality

Current Activities

Describe:

- Currently defined sensitive areas. This would include maps or GIS data.
- Current coordination with planning entities. This would include a general description of how the planning process works and how it is ensured that on-sites are considered in the planning process.
- The existing program activities and provide an assessment of limitations, deficiencies and challenges.

Identify Goals

Describe the goals associated with changes and improvements in the way sensitive areas are managed. These might include the following:

- New sensitive areas including MRAs
- New risk assessment methodology
- Changes to local planning processes or relationships

Steps to Achieve Goals

As in the summary for Part 1, the steps taken to achieve the goals depend on the current state of the program and the desired goals.

Part 3 - Operation, Monitoring and Maintenance in Sensitive Areas

Before providing a summary of the O&M activities within sensitive areas, it would be best to describe O&M requirements throughout the jurisdiction so that the differences in O&M practices are clear.

Current Activities

Describe the existing O&M program activities and assess their limitations, deficiencies and challenges. Include in the discussion the number of OSS in sensitive areas, enforcement, permitting and O&M activities such as the number of OSS serviced annually.

Identify Goals

Describe desired changes and improvements to the O&M program. Include specific goals. These might include:

- Regular inspections of all OSS
- Reduced failures
- Improved interaction on all planning actions regarding OSS

Steps to Achieve Goals

Describe the steps necessary to achieve the desired goals.

Part 4 - Marine Recovery Area Strategy

Current Activities

Marine Recovery Areas are a new sensitive area defined in 3SHB 1458. As such there are likely no current activities in their management or designation.

Identify Goals

Describe the goals associated with MRAs. These might include:

- Develop a methodology for establishing MRAs
- Develop a database strategy for keeping records associated with MRAs
- Inventory all OSS in MRA by 2012 and ensure all that are failing are serviced

Steps to Achieve Goals

Describe the steps necessary to achieve the desired goals.

Part 5 - Education

Current Activities

Describe activities related to education and outreach regarding OSS and O&M. Educational and outreach efforts may include the following:

- Classes
- Mailings

- Websites
- Time of sale information to new homeowner
- Advertisements

Describe some of the metrics used to evaluate educational and outreach methods. These might include the number of students in classes and the number of notices mailed annually.

How the effectiveness of activities is measured.

What are some deficiencies and challenges related to these efforts?

Identify Goals

Describe desired program changes and improvements. These should address deficiencies and challenges and new activities. For example, it may be necessary to modify educational activities to inform residents of requirements associated with MRAs.

Steps to Achieve Goals

Describe steps necessary to achieve goals and resource requirements.

Part 6 - The Plan Summary

Provide a timeline of all steps necessary to meet all goals. A timeline should include a graphical representation, such as a Gantt chart, showing the estimated completion dates of the steps identified by the LHJ. Due dates should also be placed on the chart, such as the requirement that all OSS within MRAs be inventoried by 2012. Other than required deadlines the estimated completion dates will likely be flexible and the timeline revisited through adaptive management practices.

Plan Checklist

The Overall Checklist is a tool to be used when working on the Plan. Next to each item are three checkboxes. These represent items that are:

- (C) Complete,
- (R) Not completed due to lack of *resources*, or
- (P) Completed prior to writing the Plan as part of existing business *practices*.

The checkboxes next to the Part headings are bolded and a little larger than the others. As the subcomponents of each Part are checked, appropriately the larger checkbox next to the Part heading can be checked indicating the Part is complete.

C	R	P	C=Complete, R=Lack of Resources, P=Completed prior to Plan
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 1 – Database Enhancement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OSS Inventory <ul style="list-style-type: none"> • Describe current software and hardware • Age of database, schedule of maintenance • What percentage of OSS in jurisdiction is recorded? • What fields are recorded: Age, location, technology, etc? • Ensure MRA records’ compatibility with other OSS records
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operation, Monitoring and Maintenance – Record Maintenance <ul style="list-style-type: none"> • Ensure timely reports of failures within MRAs • Describe current O&M reporting requirements • Current data management • How are data used now? Maps, permit tracking, etc • What changes will be made to the hardware and software? • How will data be managed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize and prioritize activities with timeline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 2 – Coordination with planning on sensitive areas
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe <ul style="list-style-type: none"> • Jurisdictional environment • Each sensitive area with maps • Methodology for determining MRAs • Coordination with all Planning Entities within the Jurisdiction • Resources necessary for these activities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conduct a SEPA review (see Appendix D)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize and prioritize activities with a timeline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 3 Operation, monitoring and maintenance in sensitive areas
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe <ul style="list-style-type: none"> • Current O&M requirements common to all areas throughout the LHJ • Current O&M requirements in sensitive areas • O&M Enforcement Activities • Resources necessary for these activities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize and prioritize activities with a timeline

C	R	P	C=Complete, R=Lack of Resources, P=Completed prior to Plan
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 4 – Marine Recovery Area Strategy
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe <ul style="list-style-type: none"> • How failing OSS within MRAs will be found and repairs ensured • How all OSS within MRAs will be located • How OSS data in MRAs will be managed • Resources needed implement the MRA strategy
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contract with DOH
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize and prioritize activities with a timeline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 5 Education
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe <ul style="list-style-type: none"> • Current and planned education efforts • Current and planned OSS reminders system • Resources needed to implement these activities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize and prioritize activities with a timeline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Part 6 – Plan Summary - For each Part 1-5:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summarize <ul style="list-style-type: none"> • Current practices • Agency goals and objectives • Strategies for meeting agency goals and objectives • Resources necessary, including those needed to write the management plan • Resources available
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Include with the Plan Summary <ul style="list-style-type: none"> • Completed checklist with detailed answers to questions • Measurable program objectives • Timeline - Gantt chart or equivalent

Appendices

Appendix A – WAC 246-272A-0015 Local Management and Regulation.....	49
Appendix B – Third Substitute House Bill 1458 – Marine Areas.....	53
Appendix C – Definitions of Sensitive Areas.....	58
Appendix D – SEPA.....	61
Appendix E – Links to Internet Website URLs	62

Appendix A – WAC 246-272A-0015 Local Management and Regulation

- 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. The plan must specify how the local health jurisdiction will:
 - a) Progressively develop and maintain an inventory of all known OSS in operation within the jurisdiction
 - b) Identify any areas where OSS could pose an increased public health risk. The following areas shall be given priority in this activity:
 - i. Shellfish protection districts or shellfish growing areas;
 - ii. Sole source aquifers designated by the [U.S. EPA](#);
 - iii. 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;
 - iv. Designated wellhead protection areas for Group A public water systems;
 - v. 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](#);
 - vi. 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;
 - vii. Wetland areas under production of crops for human consumption;
 - viii. 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](#);
 - ix. Areas where nitrogen has been identified as a contaminant of concern; and
 - x. Other areas designated by the local health officer.
 - c) Identify operation, maintenance and monitoring requirements commensurate with risks posed by OSS within the geographic areas identified in (b) of this subsection;
 - d) Facilitate education of homeowners regarding their responsibilities under this chapter and provide operation and maintenance information for all types of systems in use within the jurisdiction;
 - e) Remind and encourage homeowners to complete the operation and maintenance inspections required by [WAC 246-272A-0270](#);
 - f) Maintain records required under this chapter, including of all operation and maintenance activities as identified; and

- g) Enforce OSS owner permit application, operation, monitoring and maintenance and failure repair requirements defined in [WAC 246-272A-0200\(1\)](#), [246-272A-0270](#), [246-272A-0275](#), and [246-272A-0280](#) (1) and (2);
 - h) Describe the capacity of the local health jurisdiction to adequately fund the local OSS plan, including the ability to find failing and unknown systems; and
 - i) Assure that the Plan was developed to coordinate with the comprehensive land use plan of the entities governing development in the health officer's jurisdiction.
- 2) After being approved by the local board of health following a public hearing, the local health officers required to develop a written plan under subsection (1) of this section shall:
 - a) Supply a copy of the Plan to the department;
 - b) Supply a copy of the Plan to the entities responsible for land use planning and development regulations in the health officer's jurisdiction; and
 - c) Implement the Plan described in subsection (1) of this section
- 3) The plans of local health jurisdictions required to develop a written plan under subsection (1) of this section shall be submitted to the department by July 1, 2007, and shall be reviewed to ensure the elements described in subsection (1) of this section have been addressed. The department shall provide in writing to the local board of health its review of the completeness of the Plan.
- 4) For purposes of this chapter, the local health jurisdictions in marine counties are Clallam, Island, Kitsap, Jefferson, Mason, San Juan, Seattle-King, Skagit, Snohomish, Tacoma-Pierce, Thurston and Whatcom.
- 5) The local health officers for all other jurisdictions not required to develop a written plan under subsection (1) of this section shall develop a written plan that will provide guidance to the local jurisdiction regarding development and management activities for all OSS within the jurisdiction. At a minimum the Plan shall include:
 - a) A description of the capacity of the local health jurisdiction to provide education and operation and maintenance information for all types of systems in use within the jurisdiction;
 - b) A description of how the local health officer will remind and encourage homeowners to complete the operation and maintenance inspection required by [WAC 246-272A-0270](#); and
 - c) A description of the capacity of the local health jurisdiction to adequately fund the local OSS plan.
- 6) In order to implement the Plan described in subsections (1) and (5) of this section, the local health officer shall require the owner of the OSS to:
 - a) Comply with additional requirements identified in the Plan for the location, design, or performance; and
 - b) Comply with the conditions of the operational permit if one is required.

- 7) In order to implement the Plan described in subsections (1) and (5) of this section, the local health officer may require the owner of the OSS to:
 - a) Ensure additional maintenance and monitoring of the OSS;
 - b) Provide dedicated easements for inspections, maintenance, and potential future expansion of the OSS;
 - c) Place a notice to title identifying any additional requirements for OSS operation, maintenance and monitoring; and
 - d) Have an inspection of the OSS at the time of property transfer including the preparation of a "record drawing" if necessary.
- 8) No later than July 1, 2006, the department shall develop guidance on local management programs to assist marine local health jurisdictions in plan development.
- 9) Until such time as the local board of health decides to adopt its own rules, the local health officer shall enforce this chapter. Local boards of health may adopt and enforce local rules and regulations governing on-site sewage systems when the local regulations are:
 - a) Consistent with, and at least as stringent as, this chapter; and
 - b) Approved by the department prior to the effective date of local regulations.
- 10) A local board of health shall apply for departmental approval of local regulations by initiating the following procedure:
 - a) The local board shall submit the proposed local regulations to the department.
 - b) Within ninety days of receipt, the department shall:
 - i. Approve the regulation in writing; or
 - ii. Signify automatic tacit approval with the local regulations and permitting local implementation by failing to act; or
 - iii. Deny approval of the regulations. If the department determines local regulations are not consistent with this chapter, the department shall provide specific reasons for denial.
- 11) Upon receipt of departmental approval or after ninety days without notification, whichever comes first, the local board may implement adopted regulations. The local board shall provide a copy of the adopted local regulations to the department.
- 12) If the department denies approval of local regulations, the local board of health may:
 - a) Resubmit revised regulations for departmental consideration; or
 - b) Submit a written request for a review of the departmental denial within one hundred twenty days from the date the local board of health receives the written reasons for the denial.
- 13) Upon receipt of written request for review of the departmental denial, the department shall:
 - a) Acknowledge the receipt of the request in writing; and
 - b) Form a mutually acceptable advisory panel consisting of:
 - i. One departmental employee;

- ii. One employee from a local health jurisdiction other than that which requested the review; and
 - iii. One member of the technical advisory committee.
- 14) If good faith efforts to reach agreement are unsuccessful, the local board of health may appeal the denial to the Washington State Board of Health for resolution.
- 15) Nothing in this chapter shall prohibit the adoption and enforcement of more stringent regulations by local health departments.
- 16) In the Plan required in subsection (1) of this section and in local regulations, the local health officer may address water conservation and include options for the non-potable reuse of gray water. Any treatment and dispersal of gray water outside the residence or structure must comply with this chapter.

[Statutory Authority: [RCW 43.20.050](#). 05-15-119, § 246-272A-0015, filed 7/18/05, effective 9/15/05.]

Appendix B – Third Substitute House Bill 1458 – Marine Areas

AN ACT Relating to managing on-site sewage disposal systems in marine areas; adding a new section to [chapter 90.48 RCW](#); adding a new chapter to [Title 70 RCW](#); and creating a new section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

Section 1

The legislature finds that:

- (1) Hood Canal and other marine waters in Puget Sound are at risk of severe loss of marine life from low-dissolved oxygen. The increased input of human-influenced nutrients, especially nitrogen, is a factor causing this low-dissolved oxygen condition in some of Puget Sound's waters, in addition to such natural factors as poor overall water circulation and stratification that discourages mixing of surface-to-deeper waters;
- (2) A significant portion of the state's residents live in homes served by on-site sewage disposal systems, and many new residences will be served by these systems;
- (3) Properly functioning on-site sewage disposal systems largely protect water quality. However, improperly functioning on-site sewage disposal systems in marine recovery areas may contaminate surface water, causing public health problems;
- (4) Local programs designed to identify and correct failing on-site sewage disposal systems have proven effective in reducing and eliminating public health hazards, improving water quality, and reopening previously closed shellfish areas; and
- (5) State water quality monitoring data and analysis can help to focus these enhanced local programs on specific geographic areas that are sources of pollutants degrading Puget Sound waters. Therefore, it is the purpose of this chapter to authorize enhanced local programs in marine recovery areas to inventory existing on-site sewage disposal systems, to identify the location of all on-site sewage disposal systems in marine recovery areas, to require inspection of on-site sewage disposal systems and repairs to failing systems, to develop electronic data systems capable of sharing information regarding on-site sewage disposal systems, and to monitor these programs to ensure that they are working to protect public health and Puget Sound water quality.

Section 2

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

- (1) "Board" means the Washington State Board of Health.
- (2) "Department" means the department of health.
- (3) "Failing" means a condition of an existing on-site sewage disposal system or component that threatens the public health by inadequately treating sewage, or by creating a potential for direct or indirect contact between sewage and the public. Examples of a failing on-site sewage disposal system include:
 - (a) Sewage on the surface of the ground;
 - (b) Sewage backing up into a structure caused by slow soil absorption of septic tank effluent;
 - (c) Sewage leaking from a sewage tank or collection system;
 - (d) Cesspools or seepage pits where evidence of ground water or surface water quality degradation exists;

- (e) Inadequately treated effluent contaminating ground water or surface water; or
 - (f) Noncompliance with standards stipulated on the permit.
- (4) "Local health officer" or "local health jurisdiction" means the local health officers and local health jurisdictions in the following counties bordering Puget Sound: Clallam, Island, Kitsap, Jefferson, Mason, San Juan, Seattle-King, Skagit, Snohomish, Tacoma-Pierce, Thurston, and Whatcom.
- (5) "Marine recovery area" means an area of definite boundaries where the local health officer, or the department in consultation with the health officer, determines that additional requirements for existing on-site sewage disposal systems may be necessary to reduce potential failing systems or minimize negative impacts of on-site sewage disposal systems.
- (6) "Marine recovery area on-site strategy" or "on-site strategy" means a local health jurisdiction's on-site sewage disposal system strategy required under section 5 of this act. This strategy is a component of the on-site program management plan required under section 3 of this act.
- (7) "On-site sewage disposal system" means an integrated system of components, located on or nearby the property it serves, that conveys, stores, treats, or provides subsurface soil treatment and dispersal of sewage. It consists of a collection system, a treatment component or treatment sequence, and a soil dispersal component. An on-site sewage disposal system also refers to a holding tank sewage system or other system that does not have a soil dispersal component. For purposes of this chapter, the term "on-site sewage disposal system" does not include any system regulated by a water quality discharge permit issued under [chapter 90.48 RCW](#).
- (8) "Unknown system" means an on-site sewage disposal system that was installed without the knowledge or approval of the local health jurisdiction, including those that were installed before such approval was required.

Section 3

By July 1, 2007, the local health officers of health jurisdictions in the twelve counties bordering Puget Sound shall develop a written on-site program management plan to provide guidance to the local health jurisdiction.

Section 4

- (1) In developing on-site program management plans required under section 3 of this act, the local health officer shall propose a marine recovery area for those land areas where existing on-site sewage disposal systems are a significant factor contributing to concerns associated with:
- (a) Shellfish growing areas that have been threatened or downgraded by the department under [chapter 69.30 RCW](#);
 - (b) Marine waters that are listed by the department of ecology under section [303\(d\)](#) of the federal clean water act (33 U.S.C. Sec.1251 et seq.) for low-dissolved oxygen or fecal coliform; or
 - (c) Marine waters where nitrogen has been identified as a contaminant of concern by the local health officer.
- (2) In determining the boundaries for a marine recovery area, the local health officer shall assess and include those land areas where existing on-site sewage disposal systems may affect water quality in the marine recovery area.
- (3) Determinations made by the local health officer under this section, including identification of nitrogen as a contaminant of concern, will be based on published guidance developed by the department. The guidance must be designed to ensure the proper use of available scientific and technical data. The health officer shall document the basis for these determinations when plans are submitted to the department.
- (4) After July 1, 2007, the local health officer may designate additional marine recovery areas meeting the criteria of this section, according to new information. Where the department

recommends the designation of a marine recovery area or expansion of a designated marine recovery area, the local health officer shall notify the department of its decision concerning the recommendation within ninety days of receipt of the recommendation.

Section 5

(1) The local health officer of a local health jurisdiction where a marine recovery area has been proposed under section 4 of this act shall develop and approve a marine recovery area on-site strategy that includes designation of marine recovery areas to guide the local health jurisdiction in developing and managing all existing on-site sewage disposal systems within marine recovery areas within its jurisdiction. The on-site strategy must be a component of the program management plan required under section 3 of this act. The department may grant an extension of twelve months where a local health jurisdiction has demonstrated substantial progress toward completing its on-site strategy.

(2) An on-site strategy for a marine recovery area must specify how the local health jurisdiction will by July 1, 2012, and thereafter, find:

- (a) Existing failing systems and ensure that system owners make necessary repairs; and
- (b) Unknown systems and ensure that they are inspected as required to ensure that they are functioning properly, and repaired, if necessary.

Section 6

In a marine recovery area, each local health officer shall:

(1) Require that on-site sewage disposal system maintenance specialists, septic tank pumpers, or others performing on-site sewage disposal system inspections submit reports or inspection results to the local health jurisdiction regarding any failing system; and

(2) Develop and maintain an electronic data system of all on-site sewage disposal systems within a marine recovery area to enable the local health jurisdiction to actively manage on-site sewage disposal systems. In assisting development of electronic data systems, the department shall work with local health jurisdictions with marine recovery areas and the on-site sewage disposal system industry to develop common forms and protocols to facilitate sharing of data. A marine recovery area on-site sewage disposal electronic data system must be compatible with all on-site sewage disposal electronic data systems used throughout a local health jurisdiction.

Section 7

(1) The on-site program management plans of local health jurisdictions required under section 3 of this act must be submitted to the department by July 1, 2007, and be reviewed to determine if they contain all necessary elements. The department shall provide in writing to the local board of health its review of the completeness of the Plan. The board may adopt additional criteria by rule for approving plans.

(2) In reviewing the on-site strategy component of the Plan, the department shall ensure that all required elements, including designation of any marine recovery area, have been addressed.

(3) Within thirty days of receiving an on-site strategy, the department shall either approve the on-site strategy or provide in writing the reasons for not approving the strategy and recommend changes. If the department does not approve the on-site strategy, the local health officer must amend and resubmit the Plan to the department for approval.

(4) Upon receipt of department approval or after thirty days without notification, whichever comes first, the local health officer shall implement the on-site strategy.

(5) If the department denies approval of an on-site strategy, the local health officer may appeal the denial to the board. The board must make a final determination concerning the denial.

(6) The department shall assist local health jurisdictions in:

- (a) Developing written on-site program management plans required by section 3 of this act;

- (b) Identifying reasonable methods for finding unknown systems; and
- (c) Developing or enhancing electronic data systems that will enable each local health jurisdiction to actively manage all on-site sewage disposal systems within their jurisdictions, with priority given to those on-site sewage disposal systems that are located in or which could affect designated marine recovery areas.

Section 8

- (1) The department shall enter into a contract with each local health jurisdiction subject to the requirements of this chapter to implement plans developed under this chapter, and to develop or enhance electronic data systems required by this chapter. The contract must include state funding assistance to the local health jurisdiction from funds appropriated to the department for this purpose.
- (2) The contract must require, at a minimum, that within a marine recovery area, the local health jurisdiction:
 - (a) Show progressive improvement in finding failing systems;
 - (b) Show progressive improvement in working with on-site sewage disposal system owners to make needed system repairs;
 - (c) Is actively taking steps to find previously unknown systems and ensuring that they are inspected as required and repaired if necessary;
 - (d) Show progressive improvement in the percentage of on-site sewage disposal systems that are included in an electronic data system; and
 - (e) Of those on-site sewage disposal systems in the electronic data system, show progressive improvement in the percentage that have had required inspections.
- (3) The contract must also include provisions for state assistance in updating the Plan. Beginning July 1, 2012, the contract may adopt revised compliance dates, including those in section 5 of this act, where the local health jurisdiction has demonstrated substantial progress in updating the on-site strategy.
- (4) The department shall convene a work group for the purpose of making recommendations to the appropriate committees of the legislature for the development of certification or licensing of maintenance specialists. The work group shall make its recommendation with consideration given to the 1998 report to the legislature entitled "On-Site Wastewater Certification Work Group" as it pertains to maintenance specialists. The work group may give priority to appropriate levels of certification or licensure of maintenance specialists who work in the Puget Sound basin.

Section 9

The provisions of this chapter are supplemental to all other authorities governing on-site sewage disposal systems, including [chapter 70.118 RCW](#) and rules adopted under that chapter.

Section 10

A new section is added to [chapter 90.48 RCW](#) to read as follows:

The department shall offer financial and technical assistance to local governments and tribal entities in Puget Sound counties to establish or expand on-site sewage disposal system repair and replacement through local loan and grant programs. The programs must give priority to low-income and financially distressed homeowners.

Section 11

(1) The department of health shall report to the appropriate committees of the senate and house of representatives by December 31, 2008, on progress in designating marine recovery areas and developing and implementing on-site strategies for such marine recovery areas.

(2) The report shall include information on:

(a) The status of on-site strategies in each county covered by sections 2 through 9 of this act;

(b) The status of on-site sewage disposal system location, identification, and inclusion within electronic data systems in each county, including estimates of remaining on-site sewage disposal systems within marine recovery areas that have not been identified or included within electronic data systems;

(c) Areas for which shoreline surveys have been completed by the department;

(d) The progress of and capacity of local health jurisdictions to identify on-site sewage disposal systems within marine recovery areas and to ensure that failing systems are repaired and all systems are operated and maintained in compliance with local board of health standards;

(e) Regulatory, statutory, and financial barriers to implementing the on-site strategy; and

(f) Recommendations that will assist local health jurisdictions to successfully implement plans.

(3) Local health jurisdictions shall provide information and data requested by the department of health in developing the report, and the department shall append all reports or information that the local health jurisdictions request to be included in the report.

Section 12

Sections 1 through 9 of this act constitute a new chapter in [Title 70 RCW](#).

--- END ---

Appendix C – Definitions of Sensitive Areas

Areas under WAC 246-272A-0015 (1): Where OSS could increase risk to public health:

(i) Shellfish protection districts or shellfish growing areas;

Shellfish protection districts [RCW 90.72.030](#) are areas in which nonpoint pollution threatens the water quality on which shellfish farming or harvesting is dependent. The county legislative authority establishes a shellfish protection program to deal with the nonpoint pollution threatening water quality, including requiring the elimination or decrease of contaminants in storm water runoff, establishing monitoring, inspection, and repair elements to ensure that on-site sewage systems are adequately maintained and working properly, assuring that animal grazing and manure management practices are consistent with best management practices, and establishing educational and public involvement programs to inform citizens on the causes of the threatening nonpoint. The following website has more information: <http://www.doh.wa.gov/ehp/sf/sfpubs.htm>

Shellfish growing areas [WAC 246-282-020](#) means the lands and waters in and upon which shellfish are grown for harvesting in commercial quantities or for sale for human consumption.

(ii) Sole source aquifers designated by the U.S. EPA

[RCW 70.146.020](#) "Sole source aquifer" means the sole or principal source of public drinking water for an area designated by the administrator of the environmental protection agency pursuant to Public Law 93-523, Sec.1424(b).
<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.146.020>

(iii) 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

These areas are defined within the local growth management plan, [RCW 36.70A.040](#). The specific definition regarding areas of critical recharge is found in [RCW 36.70A.030](#) element (5). The following State Department of Ecology document comprehensively introduces Critical Aquifer Recharge Areas: <http://www.ecy.wa.gov/pubs/0510028.pdf>

(iv) Designated wellhead protection areas for Group A public water systems

Wellhead protection area means the portion of the well's, wellfield's, or spring's zone of contribution defined as such using WHPA criteria established by the department [WAC 246-290](#).

(v) 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](#)

A Water Recreation Facility is partially defined as: Any area designated for swimming in natural waters with artificial boundaries within the waters. This includes a beach with ropes and buoys marking the swimming area.

<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.90>

(vi) 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

Special protection areas are areas identified to designate ground waters that require special consideration or increased protection because of one or more unique characteristics. The unique characteristics shall be considered by the Department of Ecology when regulating activities, developing regulations, guidelines, and policies, and when prioritizing department resources for ground water quality protection programs. The characteristics to guide designation of a special protection area shall include, but not be limited to, the following:

Ground waters that support a beneficial use or an ecological system requiring more stringent criteria than drinking water standards;

Ground waters, including, but not limited to, recharge areas and wellhead protection areas, that are vulnerable to pollution because of hydrogeologic characteristics; and sole source aquifer status by federal designation.

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-090>

(vii) Wetland areas under production of crops for human consumption

Examples of crops grown in wetlands are rice and cranberries.

http://www.ecy.wa.gov/programs/sea/bas_wetlands/volume1final.html

(viii) 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](#)

Floodwaters can wash effluent out of a drain field before it has been properly treated.

The untreated wastewater has the potential to contaminate other water, such as beaches, aquifers, or wetlands. FEMA has maps of frequently flooded areas on their website.

<http://www.fema.gov/hazard/flood/index.shtm>

(ix) Areas where nitrogen has been identified as a contaminant of concern

In the state of Washington nitrate is the most commonly found ground water contaminant of both private wells and wells serving public water supplies; almost one-fourth of the wells sampled in the Columbia Basin in 1998 had nitrate levels greater than the EPA Maximum Contaminant Level (MCL) of 10 mg/l. Ingesting water containing elevated levels of nitrate may, in some situations, lead to methemoglobinemia or “blue-baby syndrome,” a condition where the body lacks enough oxygen to support normal functioning. More information can be found at:

<http://www.doh.wa.gov/ehp/dw/Programs/nitrate.htm>

Nitrogen in surface waters is of concern to the environment because it contributes to low dissolved oxygen. Nitrogen acts as a fertilizer for algae and aquatic plants. When algae and plankton die and decompose, they rob oxygen from the water that fish, shrimp and other aquatic life need to survive. Many activities associated with people contribute to nitrogen in surface waters, including fertilizers, human sewage, animal manure and decaying fish carcasses. Other nitrogen sources include the ocean, rivers, and the atmosphere. More information can be found at:

http://www.psat.wa.gov/Programs/hood_canal/hc_faq.htm#people

Technical information to assist LHJs in determining areas where nitrogen may be a contaminant of concern can be obtained at <http://wa.water.usgs.gov/pubs/fs/fs.061-97/>.

(x) Other areas designated by the local health officer.

This is an opportunity for the local health officer to identify areas within the jurisdiction that are unique and therefore not covered in the other definitions. In particular, a local health officer must consider establishing Marine Recovery areas.

Marine Recovery Area

Marine Recovery Area means an area of definite boundaries where the local health officer, or the department in consultation with the health officer, determines that additional requirements for existing on-site sewage disposal systems may be necessary to reduce potential failing systems or minimize negative impacts of on-site sewage disposal systems. Appendix B has the text of Bill 1458, concerned with Marine Recovery Areas.

The Department of Ecology also has a document entitled, “Critical Areas Assistance Handbook: Protecting Critical Areas Within the Framework of the Washington Growth Management Act” http://cted.wa.gov/CTED/documents/ID_976_Publications.pdf

Appendix D – Does the Plan Trigger SEPA

The local jurisdictions must determine if their Plan will trigger the State Environmental Policy Act (SEPA). SEPA environmental review is required for all "agency actions" unless specifically exempted by the SEPA rules or statute. The first step is to determine if an "action" has occurred by an agency. An "agency" includes any state or local agency and any local health board or district. An "action" includes any "new or revised agency rules, regulations, plans, policies or procedures" [WAC 197-11-704\(1\)](#). Plans were specifically included as an "action" that would trigger SEPA compliance.

The next step is for the local health jurisdiction to make a threshold determination. A threshold determination is required for any proposal which meets the definition of "action" and is not categorically exempt. [WAC 197-11-310\(1\)](#) To assist in making a threshold determination the agency will need to use an environmental checklist ([WAC 197-11-315](#)) which can be downloaded from the link at the end of this appendix.

The environmental checklist is a series of questions the agency will ask itself in determining if there are any significant adverse environmental impacts from its "action." If the action is not likely to have any significant adverse environmental impact then the agency will issue a determination of nonsignificance. [WAC 197-11-340](#)

Based on the contents of the OSS Management Plan: developing and maintaining an inventory of known OSS, identifying areas where OSS pose an increased public health risk, identifying operation, maintenance and monitoring requirements for areas with an increased public health risk, educating homeowners on operation and maintenance, reminding homeowners to do their OSS inspections, etc, it appears that there would be no significant adverse environmental impacts. The following website links to the SEPA rules, handbook and forms. <http://www.ecy.wa.gov/programs/sea/sepa/forms.htm>

Appendix E – Links to Internet Website URLs

Below is a list of links used in the guidance document. They are sorted alphabetically by the link name. At the end of this list are URLs used in the document without link names. The names of their websites are used instead of link names.

Federal Clean Water Act [303\(d\)](#)

http://www.epa.gov/region5/water/pdf/ecwa_t3.pdf (Physical page 18 of PDF document)

[Chapter 36.70A RCW](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A>

[Chapter 69.30 RCW](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=69.30>

[Chapter 70.90 RCW;](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.90>

[Chapter 70.118 RCW](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.118>

[Chapter 90.48 RCW](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

[Chapter 246-272 WAC](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272>

[DOH](#) (Washington State Department of Health)

<http://www.doh.wa.gov/ehp/ts/WW/pubs-ww-propertyowners.htm>

[Ecology](#) (Washington State Department of Ecology)

<http://www.ecy.wa.gov/programs/wq/wqguide/septic.html>

[EPA](#) (U.S. Environmental Protection Agency)

<http://cfpub.epa.gov/owm/septic/home.cfm>

[Jefferson](#) County

http://maps.co.jefferson.wa.us/Website/mspub/viewer.htm?mapset=temp_esa

[RCW 36.70A.030](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A.030>

[RCW 36.70A.040](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A.040>

[RCW 70.146.020](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.146.020>

[RCW 90.72.030](#)

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.72.030>

[Snohomish County](#)

<http://www.snohd.org/shdcontactcore/CMSDisclaimer.aspx>

[The National Small Flows Clearinghouse](#)

http://www.nesc.wvu.edu/nsfc/nsfc_septicnews.htm

[Title 70 RCW](#)

<http://apps.leg.wa.gov/RCW/default.aspx?Cite=70>

[U.S. EPA \(U.S. Environmental Protection Agency\)](#)

<http://www.epa.gov/safewater/ssanp.html>

[WAC 173-200-090](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-090>

[WAC 197-11-310\(1\)](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-310>

[WAC 197-11-315](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-315>

[WAC 197-11-340](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-340>

[WAC 197-11-704\(1\)](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-704>

[WAC 246-272A](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A>

[WAC 246-272A-0015](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A-0015>

[WAC 246-272A-0200](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A-0200>

[WAC 246-272A-0270](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A-0270>

[WAC 246-272A-0275](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A-0275>

[WAC 246-272A-0280](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-272A-0280>

[WAC 246-282-020](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-282-020>

[WAC 246-290](#)

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-290>

[WSU extension](#) (Washington State University Extension Service)

<http://ext.wsu.edu/>

The following are website URLs used in the document with a description of their website.

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-090>

Chapter 173-200-090 Washington Administrative Code
Special protection areas.

http://cted.wa.gov/CTED/documents/ID_976_Publications.pdf

The Department of Ecology
Critical Areas Assistance Handbook: Protecting Critical Areas within the Framework of the
Washington Growth Management Act

<http://wa.water.usgs.gov/pubs/fs/fs.061-97/>

US Geological Survey
Predicting Ground-Water Vulnerability to Nitrate in the Puget Sound Basin

<http://www.doh.wa.gov/ehp/dw/Programs/nitrate.htm>

DOH Office of Drinking Water
Nitrate in drinking water

<http://www.doh.wa.gov/ehp/sf/sfpubs.htm>

DOH Shellfish Program Web Page

http://www.ecy.wa.gov/programs/sea/bas_wetlands/volume1final.html

Department of Ecology
Wetlands in Washington State
Volume 1: A Synthesis of the Science

<http://www.ecy.wa.gov/pubs/0510028.pdf>

Department of Ecology
Critical Aquifer Recharge Areas

<http://www.fema.gov/hazard/flood/index.shtm>

Federal Emergency Management Agency Flood Web Page

http://www.psat.wa.gov/Programs/hood_canal/hc_faq.htm#people

Puget Sound Action Team
Nitrogen in Hood Canal