



City of Stevenson

Planning Department

(509)427-5970

7121 E Loop Road, PO Box 371
Stevenson, Washington 98648

TO: Eric Hansen, Public Works Director; Nick Hogan, City Administrator; Karl Russell, Building Official/Water Manager

FROM: Ben Shumaker, Planning Director

DATE: February 16th, 2017

SUBJECT: 2017 Critical Areas Update—Critical Aquifer Recharge Areas Intra-Office Report

Introduction

This memo introduces the state-required regulation of development within or likely to affect Critical Aquifer Recharge Areas (CARAs), summarizes my discussions with the Department of Ecology regarding the City's existing regulations, and asks for broader staff collaboration on potential amendments to improve our regulations. There are 5 specific decision points that are necessary before an updated regulatory approach can be developed.

Background

Critical Aquifer Recharge Areas are 1 of the 5 types of Critical Areas Stevenson is required to plan for and regulate under the Washington Growth Management Act. Unlike other types of Critical Areas, this one is really all about people. Aquifers in this case are important because they are a source of drinking water for our people, and an effective Critical Areas Ordinance will protect the quality and quantity of that water. In my view, our existing ordinance is far too complex to be effective. However, a simplified version of this would be most effective if it relied on one or both of the City Building and Public Works departments.

For additional information see the general background on the [Critical Areas Ordinance](#) and the specific page for [Critical Aquifer Recharge Areas](#) that are now available on the City website.


























Regulatory Review

Hoping that CARAs would be an "easy win" for the Planning Commission's review and update, the Planning Department chose to focus first on this topic before moving into the more widespread and controversial Critical Area types. It has become apparent, however, that I underestimated the scope of the amendment we really need to make our CARA regulations effective. As I said above, it seems too complex for our scenario. This was the topic of my email to Laurie Morgan with the Department of Ecology where I also asked for examples of better regulatory models from other communities. Her response (Attachment 1) far exceeded anything I was expecting, and her follow-up phone call also clarified a lot about how we might approach our update. Much of that conversation gave depth to the Stevenson-specific presentation (Attachment 2) she created, but her main points focused on *preserving our ability to act* if a source of pollution is discovered. On this topic she is really impressed with the [City of Vancouver's](#) regulations. She also likes the BMP design concepts the [City of Spokane](#) includes as part of their handbook approach to aquifer protection.

I've compared their approaches with our own and those of our closest neighbors: Bingen, North Bonneville, Skamania County, Washougal and White Salmon. The graphic on the next page details 1) what

areas of these communities are covered by the regulations, 2) which uses the regulations apply to, 3) when the regulations are applied to those uses, 4) what regulated uses need to do in order to comply, and 5) which department reviews proposals and ensures compliance.

Approaches to Critical Aquifer Recharge Areas

	Stevenson	Vancouver	Spokane	Bonneville*	Washougal
Coverage Area	 Citywide (unless)	 Citywide & Special Protection Areas	 Citywide & Special Protection Areas	 Citywide	 Special Protection Areas
Applicable Uses	 Nonexistent List	 List	 List and Storage Tanks	 List	 List
Regulatory Trigger	 Construction	 Construction or Investigation	 Construction or Investigation	 Construction	 Construction
Regulatory Response	 BMPs/Site-Specific Design	 BMPs/Site-Specific Design	 BMPs/Site-Specific Design	 Site-Specific Design	 BMPs/Site Specific Design
Responsible Official	 Planning	 Public Works	 Fire Official	 Planning	 Public Works

*Skamania County only has the authority to protect well heads by requiring a 100' setback from lot lines. Bingen & White Salmon do not identify/regulate CARAs.

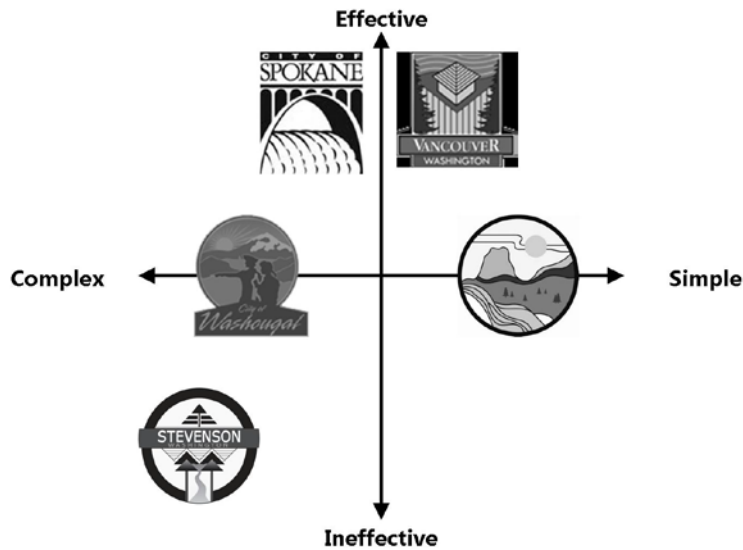
Unique Regulatory Features

Stevenson's code is the clearest on the type of analysis a user must prepare as part of their CARA report. Vancouver's is the most broadly applicable and serves a dual role to protect groundwater (as required by the Growth Management Act) and surface water (as required by their municipal stormwater NPDES permit). As a result, Vancouver relies heavily on Ecology's [Stormwater Management Manual for Western Washington](#). Spokane's handbook is similar to the Western Washington manual but provides better examples of how projects might be designed to comply with identified BMPs. North Bonneville's approach appears intended only to raise a red flag and let proponents figure out how to protect aquifers. Department of Health time-to-travel to wellheads helps Washougal define their CARAs. In addition to their preventative actions, both Vancouver and Spokane have a clearly defined authority to act to prevent pollution that is actually occurring.

Complexity vs. Effectiveness

Beyond the special features of each code, I've also taken a look at how well the presentation of each code might actually facilitate understanding of those regulations, judged the level of protection each provides, and combined those to speculate about the overall effectiveness of each City's Code. Vancouver's and Spokane's programs are clearly the most robust, and their citywide coverage and ability to ensure compliance from existing facilities make them the most likely to be effective. Vancouver's relative simplicity is based solely on its references to the Western Washington stormwater manual, which would be understood by any professional engineer working in the state. North Bonneville's simplicity is apparent, however its effectiveness is limited by a lack of clarity regarding acceptability of analyses and mitigation proposals. Washougal's has clarity in this regard, but its relatively small coverage area likely

limits its effectiveness, as does its reliance on a well-functioning multi-departmental determination process. Stevenson's leaves a lot to be desired. It is complex in areas it needn't be, lacking in areas that would add clarity, focuses solely on new development proposals, and is not backed up by appropriate mapping or lists.



Amendments & Improvements

At the end of the day, I came away clearly preferring Vancouver's approach over the others I reviewed. However, there are some barriers that would prevent us from a wholesale import of their code into ours and other impediments that might limit our effectiveness even if we adopt what can be applied. Dealing with these impediments is the heart of this memo, and I'm hoping you can help me better assess whether they'll lead me to recommend a different approach to the Planning Commission.

Coverage Area

Vancouver's citywide coverage is based more on its desire to protect *all* water resources than its desire to protect *groundwater* aquifers. As stated above, that approach suits their needs because it allows them to meet the regulatory requirements of their stormwater NPDES permit. Since Stevenson doesn't have such a mandate, we are left to choose whether we want to 1) continue with a citywide coverage, 2) limit coverage to protect drinking wellheads, or 3) take a hybrid approach to protect both surface and ground *drinking* water resources. Attachment 3 presents what the hybrid approach might look like, displaying the time-to-travel areas and surface water protection areas for Group A water systems serving the Stevenson Urban Area. Group B systems were considered for this map, but the location of those wells was clearly inaccurate on Department of Health's [online mapping portal](#).

Decision Point #1- What coverage area does the Public Works/Water Department desire in Stevenson?

Regulatory Trigger

Though I didn't present it in the simplified comparison graphic, Vancouver also benefits from its regulatory history reviewing changes in occupancy/use under the building code. This provides them 3 levels of review: new construction, new occupants of existing construction, and existing occupants of existing construction. Importing their approach to Stevenson would add the ability to investigate existing occupants, but on its own, it wouldn't trigger review of new occupants of existing construction. That would depend on program-wide changes to the way we implement and enforce changes in occupancy under the building code. Even without that, the CARA program would be far more effective than it currently is, however that lack of review may be a disservice for new tenants whose pro formas and business plans could be thrown off by added unforeseen expenses.

Decision Point #2- Is improving implementation of the CARA regulations adequate justification for the Building Department to increase their regulatory efforts? (**Note:** the potential for new tenants in CARAs—and therefore the pertinence of this question—depends on the coverage area decision made above.)

Regulatory Response

The 2012 *Stormwater Management Manual for Western Washington* underpins Vancouver's regulations. That document is successor to the 1992 *Stormwater Management Manual for the Puget Sound Basin*, however, Stevenson still relies on the older manual. Both manuals identify BMPs based on different land uses or construction proposals. While the difference between the actual BMPs within each manual is beyond my scope here, I am aware that fewer and fewer engineers are familiar with the older manual and, if my memory serves me correctly, more and more projects proposed by or in Stevenson are designed and permitted based on analysis and review under the newer manual.

Decision Point #3- Does the Public Works Department accept use of the newer *Stormwater Management Manual for Western Washington* as the basis for regulation of proposals within CARAs?

Decision Point #4- If the newer manual is used within CARA's, is the Public Works Department ready to use that manual as the basis for all stormwater regulation?

Responsible Official

In Spokane, the Fire Official is responsible for ensuring compliance in CARA's and does so as part of that official's review and regulation of hazardous substances and materials. In Vancouver, the Public Works Director assumes the duty of CARA regulation as part of that department's duty to ensure NPDES compliance for its stormwater system. Each of those city's officials have a vested interest in ensuring compliance with the regulations, and are able to do so as part of their department's other duties. Stevenson's current combined position of Building Official/Fire Marshal/Water Manager would seem to fall directly in line with the effective approach of those cities, yet, CARA compliance currently falls to the Planning Department for review.

Decision Point #5- Do the Building and Public Works departments have the desire and/or capacity to accept responsibility for CARA regulations?

Discussion and Decisions

I am providing this memo and it's linked and attached information in this long format to provide you with the ability to review, absorb, process, and develop opinions on the above decision points at your own pace. However, I would be more than willing to have a joint departmental meeting with you all to go over anything that is unclear or any decision points that may be especially problematic. Please just let me know. Regardless of the answers to the above questions, I would be happy to continue as the point person preparing the draft ordinances and staff reports for the Planning Commission and City Council.

Prepared by,

Ben Shumaker

Attachments

1. Email Correspondence with Ecology
2. Ecology's Stevenson-Specific CARA Review
3. Potential Coverage Areas Map

Ben Shumaker

From: Morgan, Laurie (ECY)
Sent: Wednesday, February 01, 2017 4:09 PM
To: Ben Shumaker
Subject: RE: Critical Areas Ordinance Update
Attachments: Copy of ConfirmedandSuspectedContaminatedSitesList.xls; City of Stevenson Critical Aquifer Recharge Areas.pptx

Greetings,

Preface: I think Stevenson can simplify the code and have better easier to implement requirements, just based on my experience. I'm sending you a wide variety of information so instead of processing this first, we ought to talk on the phone. I have some ideas that will help, might cut to the chase better.
When would be a good day/time for you? Friday any time or sometime next week works best for me.

I have done a rather quick review and have put some illustrations in the attached powerpoint.

- Read through the Critical Aquifer Recharge Area portion of the ordinance.
- Done a preliminary look at where wells are, how deep they are and what the susceptibility rating from the Dept. of Health is for the Public Water Supply wells (all high except for one, which is moderately high).
- Looked at the Dept. of Health identified potential sources of contamination map that is derived from Ecology's Facility/Site (an online map).

Sources of information about local groundwater:

- Dept. of Health Public Water Supply database (access through the [Source Water Protection Map](#), see powerpoint)
- The [Stevenson Water Dept.](#) plans and studies (call them and see what they have).
- Toxic cleanup site reports and files ([if you have time/resources](#), call the Ecology contact)

Often toxic cleanup sites will have reports that include detailed information about groundwater contamination at the site – the depth to groundwater, which way and how fast the groundwater is flowing, wells near the cleanup site. These reports are in Ecology files and may be in pdf form, depending. The other information that toxic cleanup site reports or files may have the inspection reports that show **what caused the contamination and measures that were taken to mitigate.**

Here is an example: Suppose a dry well was being used to dispose of wash water at a facility that uses solvents, oil products, or gasoline/diesel. This is a great risk for groundwater contamination. The mitigation would be to contain the wash water, not dispose of it down a dry well (or floor drain, or into the septic system), and clean up the contaminated soils and/or groundwater. To avoid the contamination, a facility could use cleaning techniques that used as little water as possible, and contain the wash water for disposal at a suitable facility. Or to remove contaminants and dispose of water to a wastewater treatment plant if allowed. Or other equivalent measures. [Here](#) is a factsheet about floor drains from Thurston County.

Sources of information about potential contaminant sources:

- The Ecology online Facility/Site database and map will show all the facilities and sites that Ecology has an interaction with. These include toxic cleanup sites, formal and voluntary; sites with an Industrial Stormwater General Permit; Hazardous Waste Generators;

- The Ecology [Stormwater Manual for Western Washington](#) has Appendix IV-A: Urban Land Uses and Pollutant Generating Sources has descriptions of SIC codes with respect to potential pollutant generating sources. This is for stormwater, additionally valuable for groundwater.
- Many jurisdictions have really good information about pollution prevention that applies to Critical Aquifer Recharge areas.
 - [Thurston County Hazardous Waste Pollution Prevention](#) (great fact sheets, if it were me, I'd ask Thurston County if I could adapt them for use, or you could just link to them if you want to use them)
 - [City of Vancouver Water Resources Protection Program](#)
The [Water Resource Protection ordinance](#) for the City of Vancouver has lots of great language, especially giving the city authority to act if there is pollution or a threat of pollution. They wrote a broader water resources protection ordinance, and that was great for Critical Aquifer Recharge Areas because it accomplishes the objectives. This is really great for a city that also relies on surface water as a drinking water source. I think Richard Hoiland would be happy to answer questions.
 - [City of Spokane Critical Materials Form](#)
[City of Spokane Critical Materials Handbook](#) – Has NAIC lists in Appendix B

I hope some of this is useful for you. I particularly like what Richard Hoiland has done in Vancouver.

If you have any questions or I can clarify anything or help more, let me know. The most important thing the city can do for itself is give itself authority to act if there is a pollution occurrence or threat, see the Vancouver ordinance.

Best,

Laurie

PS: About new USGS landslide study that includes Stevenson: <https://www.usgs.gov/news/imagery-reveals-more-landslides-western-columbia-gorge>

From: Ben Shumaker [ben@ci.stevenson.wa.us]
Sent: Monday, January 09, 2017 12:59 PM
To: Morgan, Laurie (ECY)
Cc: Karen Ashley
Subject: Critical Areas Ordinance Update

Hello Laurie-

The City of Stevenson is just beginning our Critical Areas Ordinance review and update, and I was hoping for your help scoping what would be necessary for the Critical Aquifer Recharge Areas (CARA) portion of our CAO.

I was able to attend your presentation at the July SW Planners' Forum and it gave me some really good insight into the importance of these areas, but I'm having some trouble incorporating that insight into our local review. Here's our scenario:

- We haven't implemented the CARA portion of our CAO since it our 2008 update. Our CAO is available online at https://www.municode.com/library/wa/stevenson/codes/code_of_ordinances?nodeId=TIT18ENPR_CH18.13CR_ARNARELA. See pages 33 & 34 of the attachment for a readable version of Table 18.13.110-5 Vulnerability Matrix.

- Part of the lack of implementation results from our critical areas map, which doesn't identify the location of CARAs. There are also limited groundwater/aquifer studies in our area that I have found that would help us update that map.
- Part is our reliance (SMC 18.13.110.D.3.a.i) on a city-maintained list of NAICS categories that we do not actually have or maintain.
- Part of it results staff and the regulated public's limited understanding of the multi-step determination process our CAO uses in lieu of such studies.

Can you please help me understand whether our regulations are in need of an update? Specifically, I'm hoping to know:

- 1) Is there any new Best Available Science (BAS) that needs to be incorporated into our current approach?
- 2) Can you point me toward any groundwater/aquifer studies for Stevenson or Skamania County that might help us update our map?
- 3) Can you point me toward any NAICS or other industry classification lists that I could use to build our inventory?
- 4) Are you aware of any other CAO's that are simpler than ours but still provide protections?

Generally too—and I understand if you can't provide a recommendation on this one—if there is no BAS, do you see much need for Stevenson to focus on CARAs as part of our review and update? Are we better off focusing on other critical areas?

FYI- I have copied one of our Planning Commissioners on this email to serve as the advisory committee for CARAs. Please feel free to copy your response to her as well. Please also feel free to call me (509-427-5970) if it is easier for you to respond in that way. I would be happy to pass on any information we discuss.

Thank you for any help you can provide,

BEN SHUMAKER

PLANNING DIRECTOR

CITY OF STEVENSON, WASHINGTON

(509) 427-5970

City of Stevenson Critical Aquifer Recharge Areas

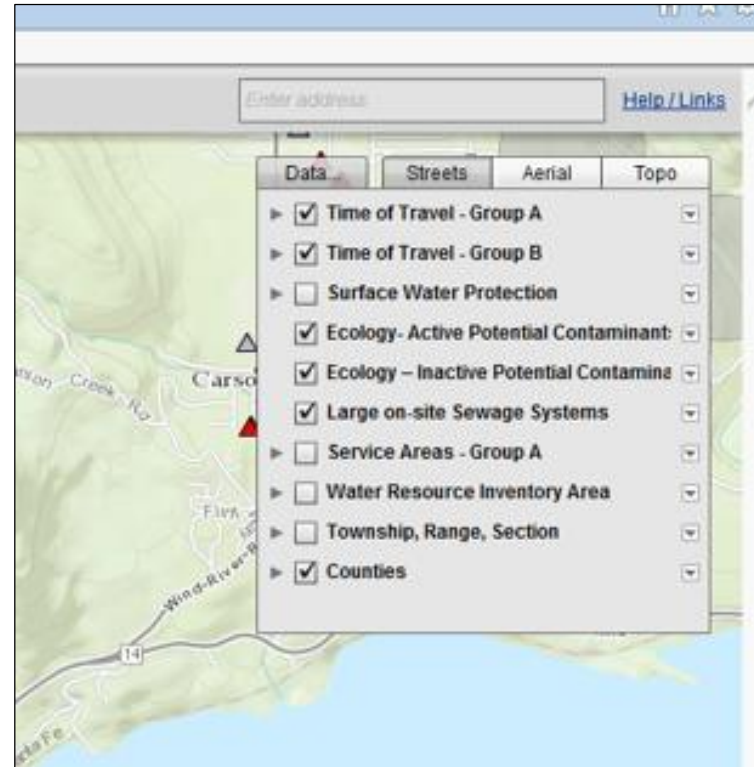
Laurie Morgan

January 2017

About Wells

Washington Dept. of Health Source Water Protection Interactive Map

- Go to Source Water Protection Map at <https://fortress.wa.gov/doh/eh/maps/SWAP/index.html>
- Zoom in to your location of interest.
- In the upper right corner, choose “data”.
- Turn on the following items (or whatever you want):
- Click on anything to see more.
- Scroll to the bottom of the pop-ups for links to information.
- Next to the “Data” button, you can change the background: “Streets”, “Aerial”, “Topo”





◀ 1 of 2 ▶ x

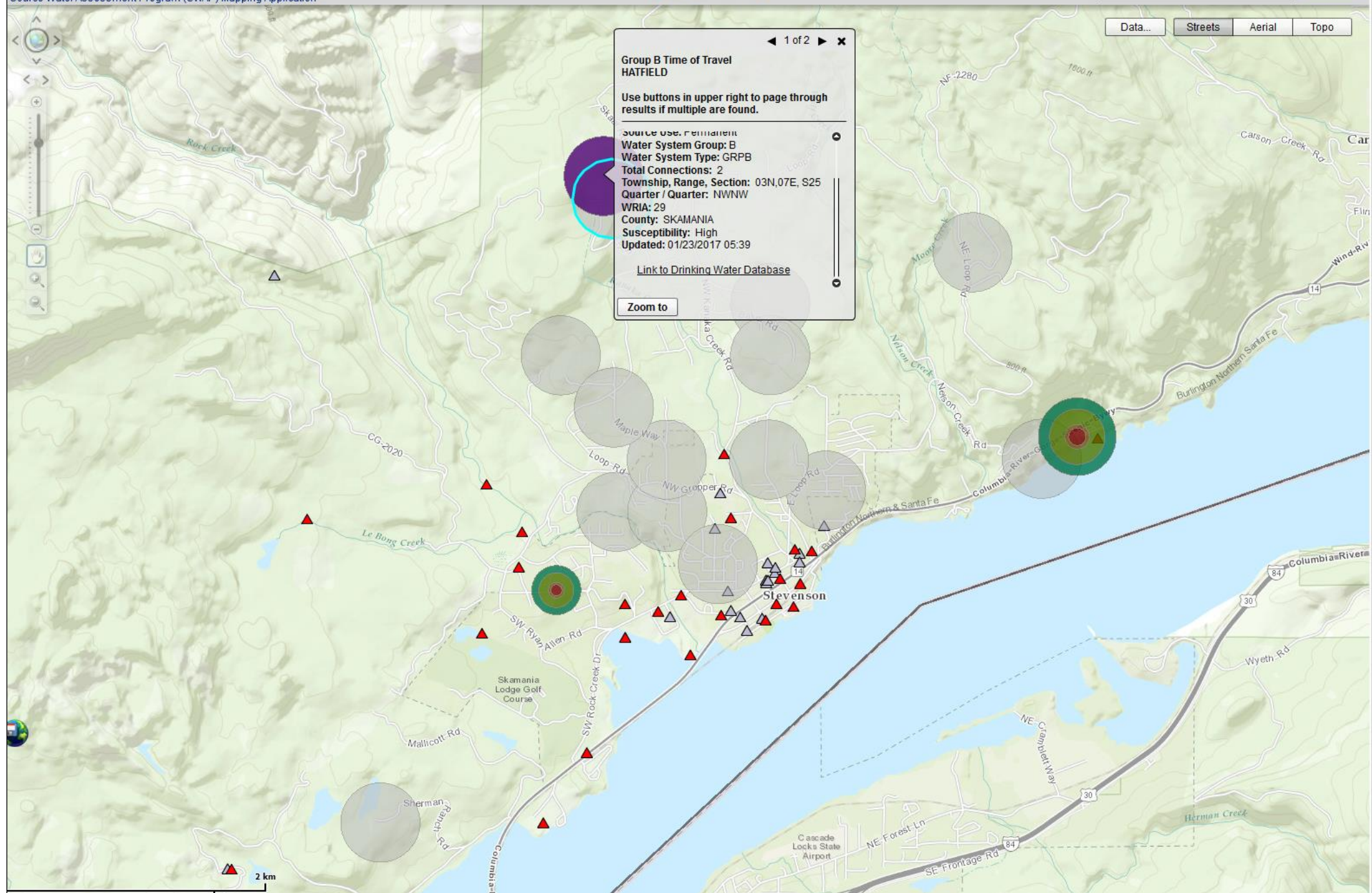
**Group B Time of Travel
HATFIELD**

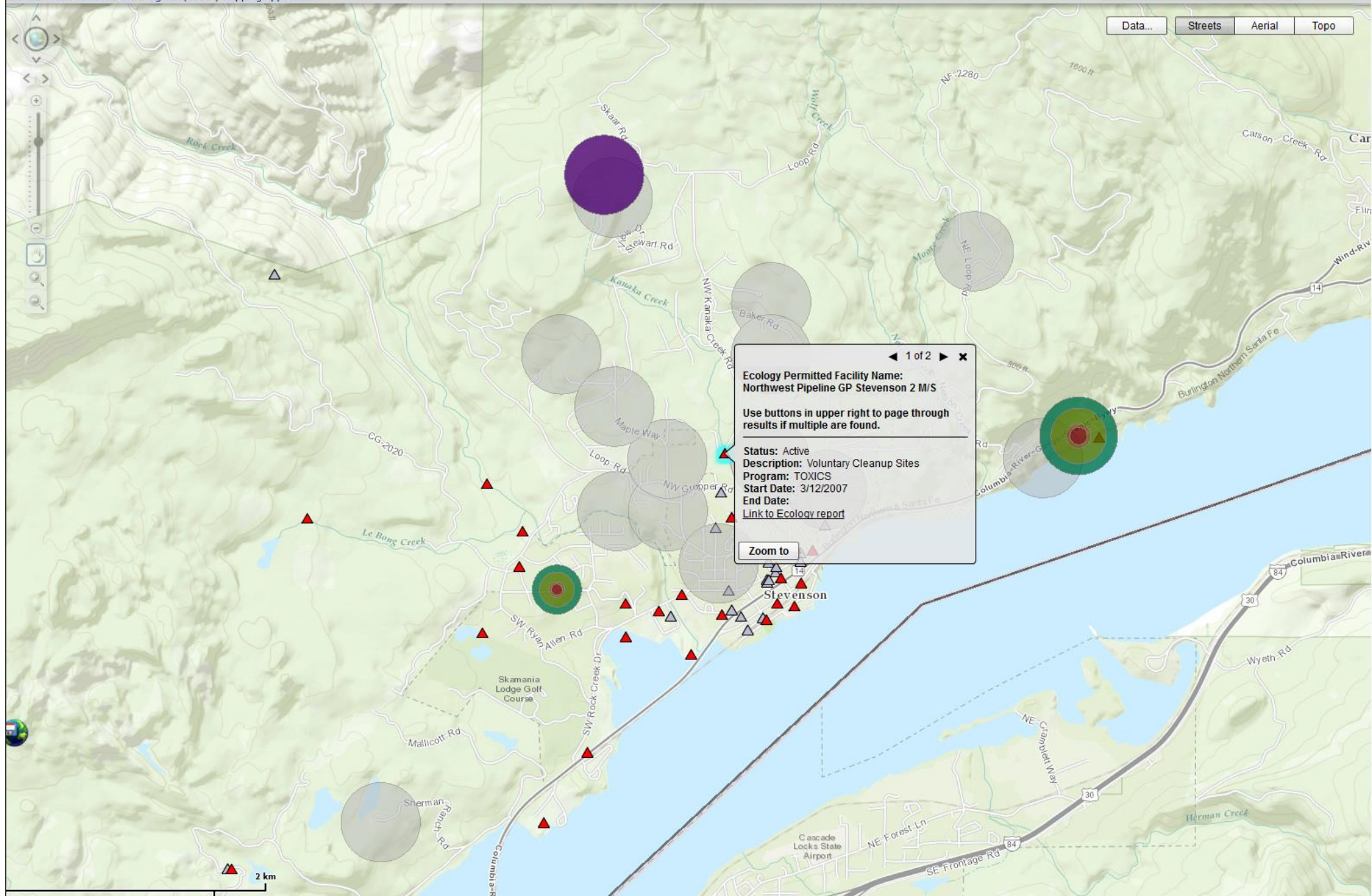
Use buttons in upper right to page through results if multiple are found.

Source Use: Permanent
Water System Group: B
Water System Type: GRPB
Total Connections: 2
Township, Range, Section: 03N,07E, S25
Quarter / Quarter: NWNW
WRIA: 29
County: SKAMANIA
Susceptibility: High
Updated: 01/23/2017 05:39

[Link to Drinking Water Database](#)

Zoom to





◀ 1 of 2 ▶ ✕

Ecology Permitted Facility Name:
Northwest Pipeline GP Stevenson 2 M/S




Use buttons in upper right to page through results if multiple are found.

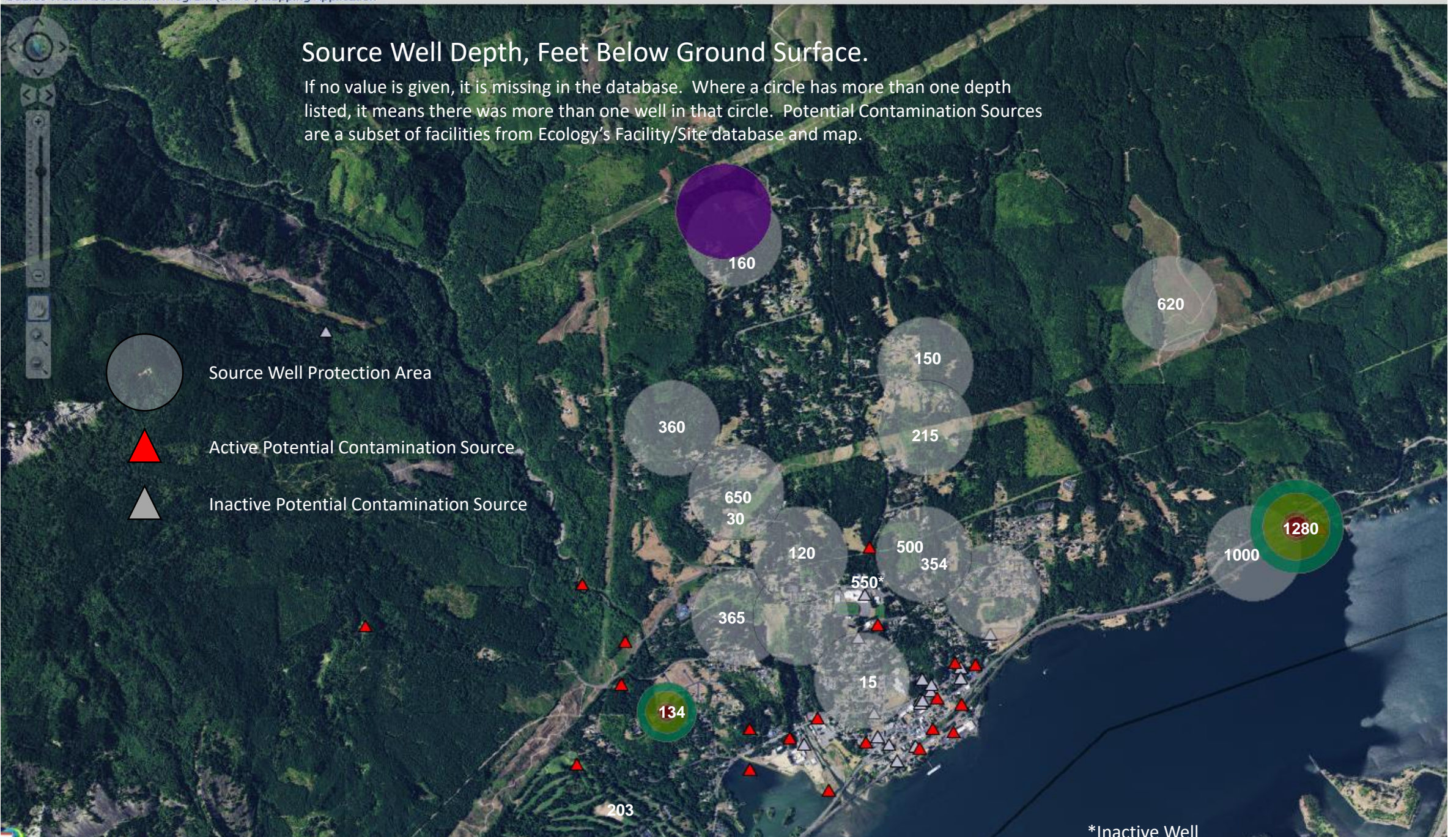
Status: Active
Description: Voluntary Cleanup Sites
Program: TOXICS
Start Date: 3/12/2007
End Date:
[Link to Ecology report](#)

Zoom to

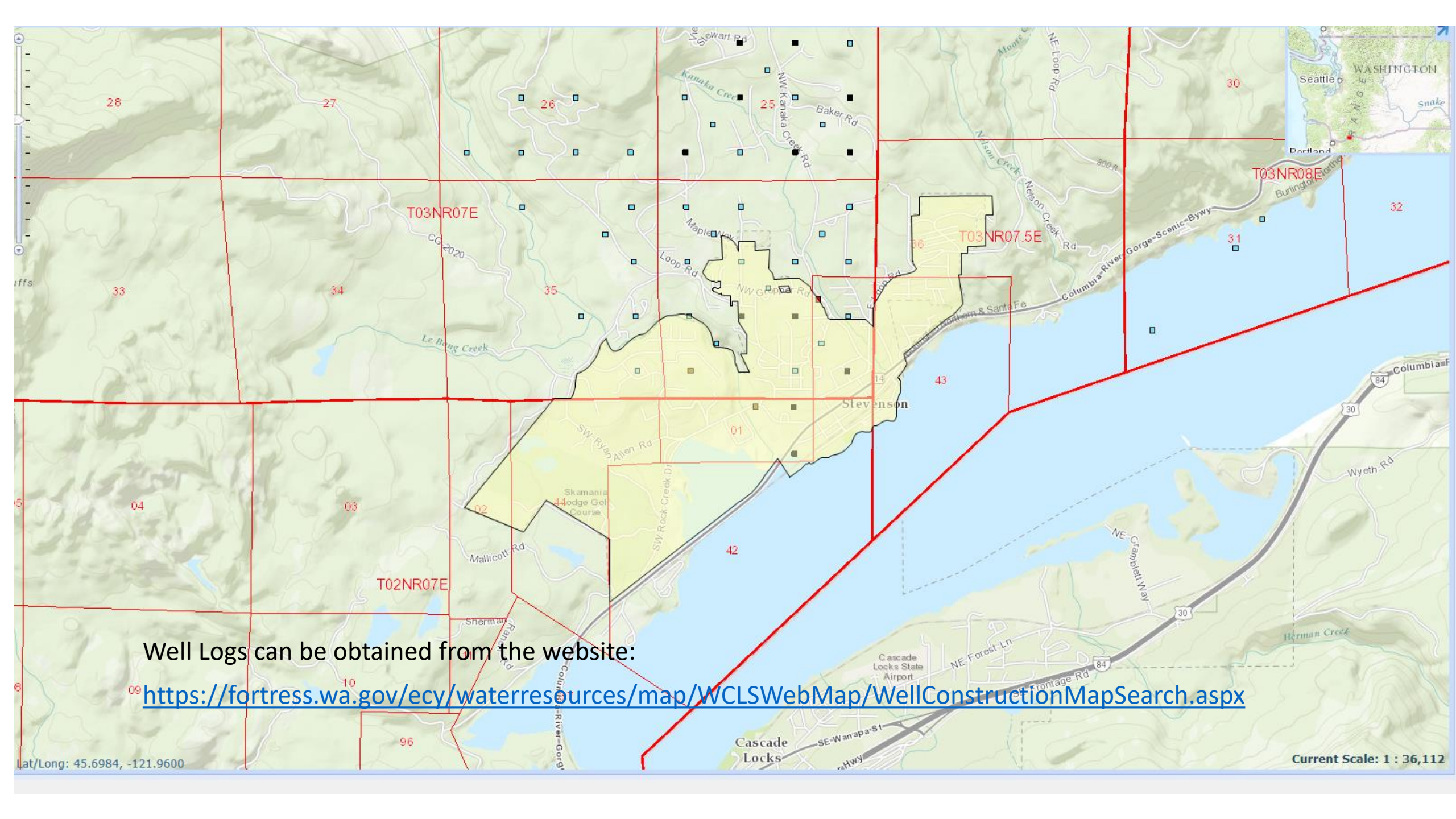
Source Well Depth, Feet Below Ground Surface.

If no value is given, it is missing in the database. Where a circle has more than one depth listed, it means there was more than one well in that circle. Potential Contamination Sources are a subset of facilities from Ecology's Facility/Site database and map.

-  Source Well Protection Area
-  Active Potential Contamination Source
-  Inactive Potential Contamination Source



*Inactive Well



Well Logs can be obtained from the website:

<https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/WellConstructionMapSearch.aspx>

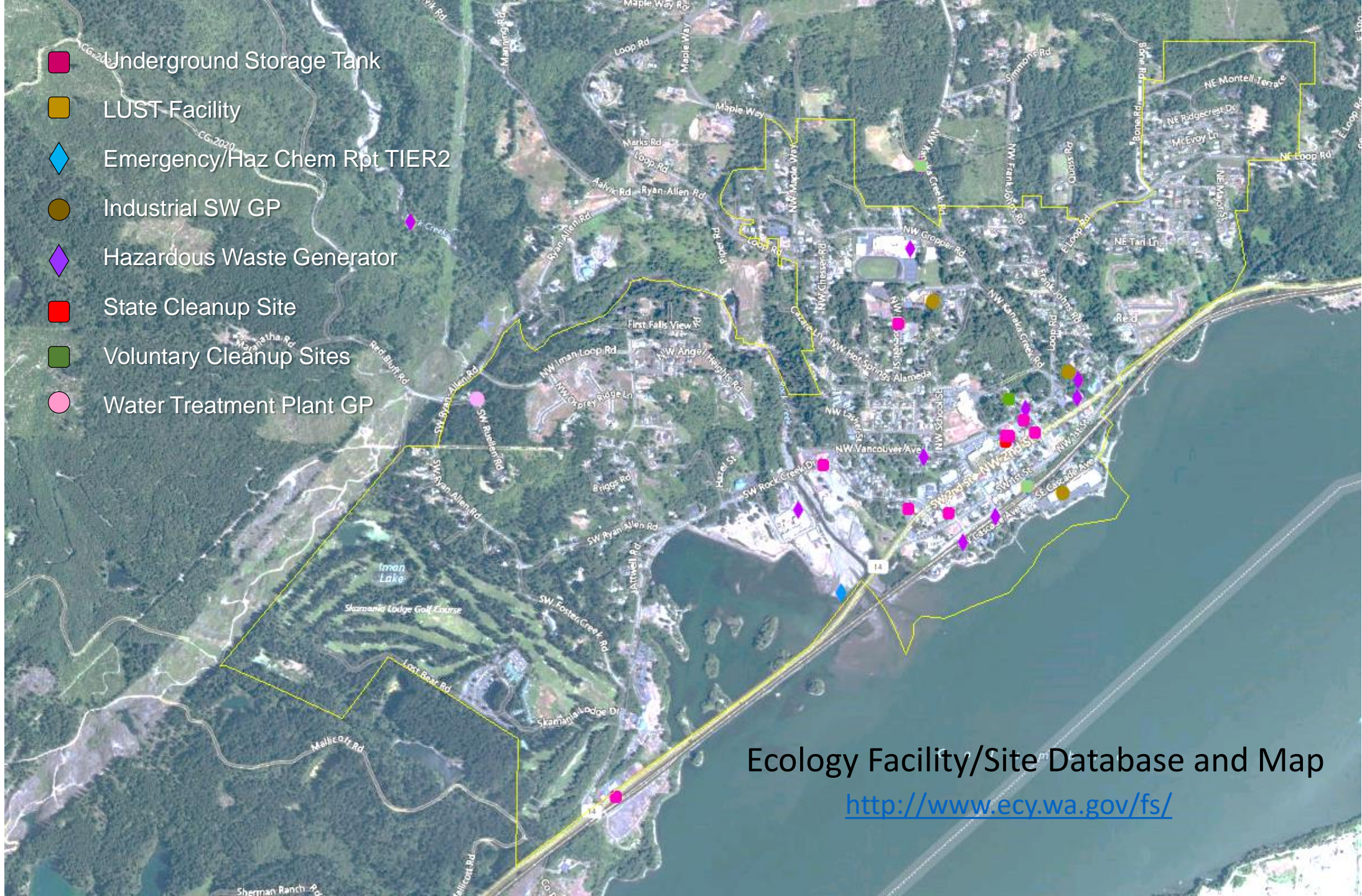
Lat/Long: 45.6984, -121.9600

Current Scale: 1 : 36,112

About Potential Contaminant Sources

(See also [Suspected or Confirmed Contaminated Sites List](#))

- Underground Storage Tank
- LUST Facility
- ◆ Emergency/Haz Chem Rpt TIER2
- Industrial SW GP
- ◆ Hazardous Waste Generator
- State Cleanup Site
- Voluntary Cleanup Sites
- Water Treatment Plant GP



Ecology Facility/Site Database and Map

<http://www.ecy.wa.gov/fs/>

Facility/Site:
3419482

Northwest Pipeline GP Stevenson 1 M/S

Also known as: NORTHWEST PIPELINE CORP STEVENSON, NORTHWEST PIPELINE CORP STEVENSON 1 MS, Northwest Pipeline GP Stevenson 1 M/S, STEVENSON 1 METER STATION NW PIPELINE



Address

78 RYAN ALLEN RD

Decimal Coordinates

Latitude: 45.7015

STEVENSON WA 98648

Longitude: -121.9102

Geographic Information

Ecology Region: SWRO

Legislative District: 14

WRIA: 29

County: Skamania

Congressional District: 3

Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Haz Waste Management Activity	HAZWASTE	(360) 407-6023	WAD988479150	1/1/2008	12/31/2008
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAD988479150	5/7/2007	1/1/2008
Voluntary Cleanup Sites	TOXICS	(360) 407-7224	SW0844	3/13/2007	
For a fee, Ecology staff will review an independent cleanup report(s) and provide a written decision about the adequacy of the cleanup actions taken and described in the report.					
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAD988479150	10/9/1990	2/25/1994

Industrial Codes (External Links Below)

NAICS Code	NAICS Description
48621	PIPELINE TRANSPORTATION OF NATURAL G

SIC Code	SIC Description
4922	NATURAL GAS TRANSMISSION

Facility/Site: 1384 MIDSTATE LAND CO

Also known as: MIDSTATE LAND CO



Address

70 NE 2ND ST
STEVENSON WA 98648

Decimal Coordinates

Latitude: 45.69609
Longitude: -121.88235

Geographic Information

Ecology Region: SWRO

Legislative District: 14

WRIA: 29

County: Skamania

Congressional District: 3

Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Independent Cleanup	TOXICS	(360) 407-7224		1/1/1900	5/12/1997

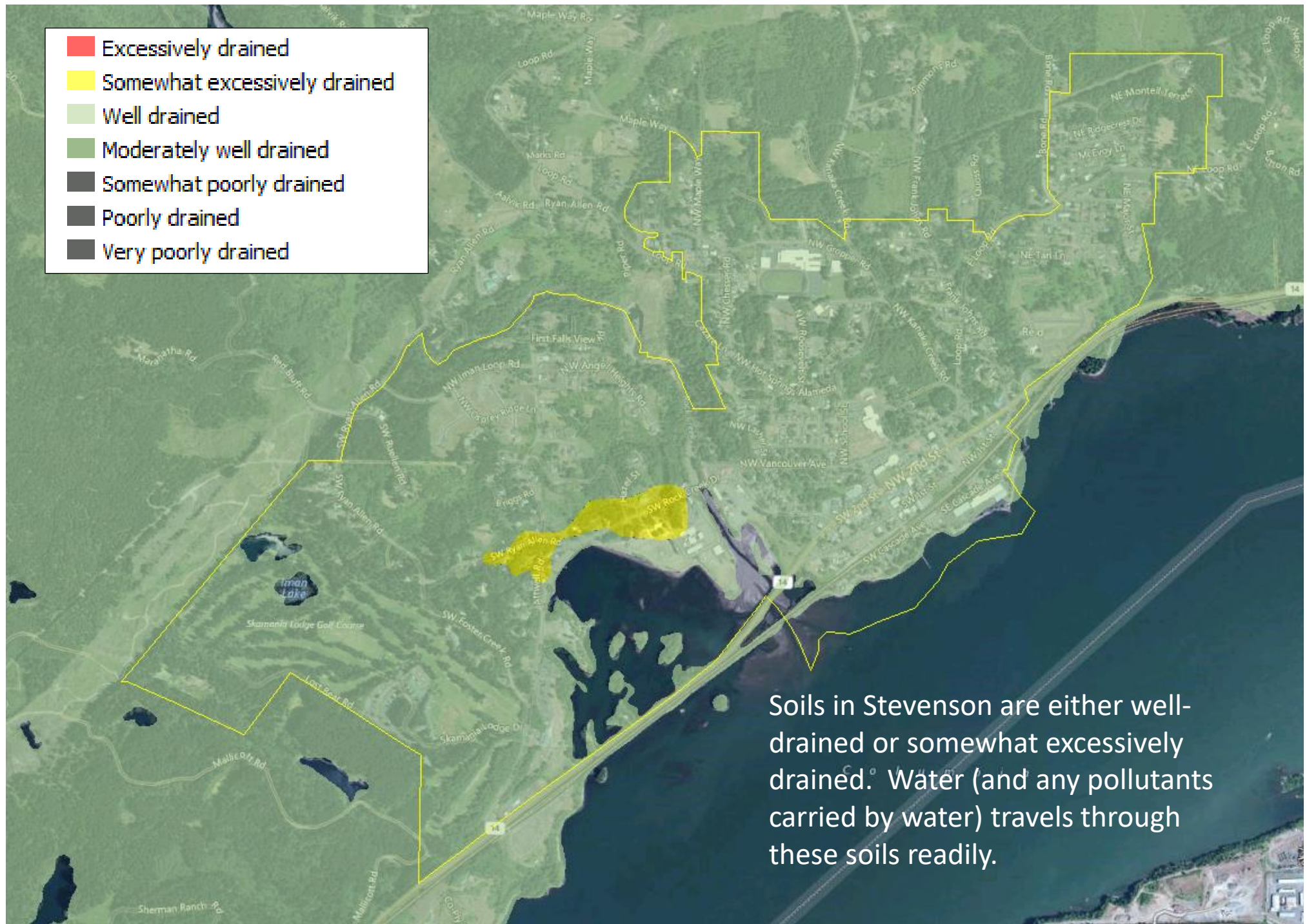
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

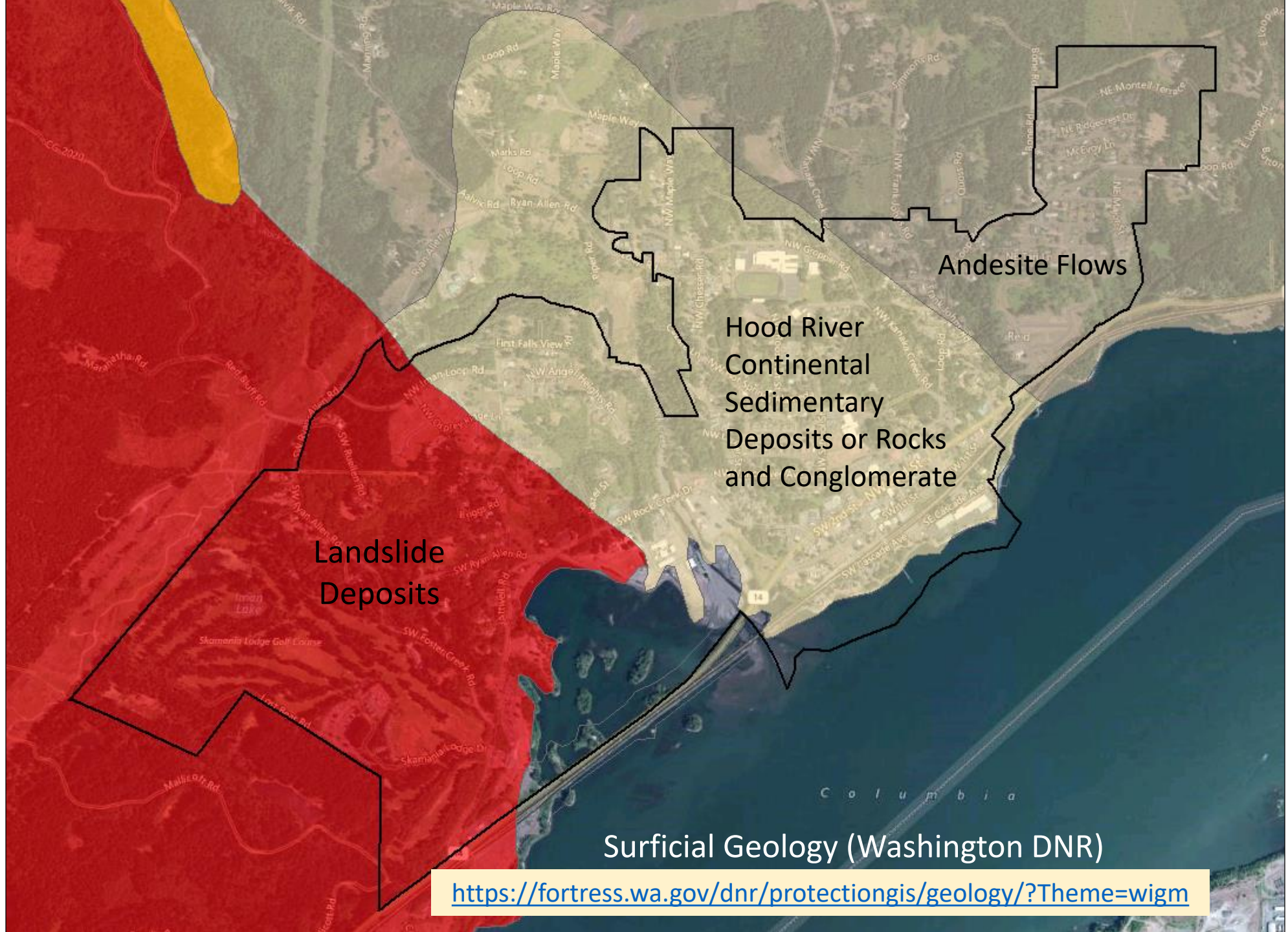
SIC Code	SIC Description
<u>55</u>	AUTOMOTIVE DEALERS & SERVICE STATION

Soil Drainage and Surficial Geology

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained



Soils in Stevenson are either well-drained or somewhat excessively drained. Water (and any pollutants carried by water) travels through these soils readily.



Landslide
Deposits

Hood River
Continental
Sedimentary
Deposits or Rocks
and Conglomerate

Andesite Flows

Surficial Geology (Washington DNR)

<https://fortress.wa.gov/dnr/protectiongis/geology/?Theme=wigm>

City of Spokane Critical Materials Links



Prepared By:
Critical Materials
Technical Advisory Committee

November 16, 2009

APPENDIX A CRITICAL MATERIALS LIST

Critical Material lists have been developed over time to the point that including the list in this manual would not be practical. The current list of critical materials is a separate document and is maintained on a regular basis to include any change. Any activity which involves the use, handling or storage of any product on the list in the quantity designated is by definition a Critical Materials Use Activity and is subject to regulation.

The list of products is fairly extensive, but is not exhaustive. However, the wide variety of products found on the list and their frequent use in the chemical industry normally result in the presence of at least one critical materials at any location where regulation is needed to assure water quality protection. Should a water quality threat develop as a result of the use of a product not on the list, action should be taken to amend the list and apply the conditions of the ordinance to any activity involving that product.

The current Critical Materials List is maintained by the City of Spokane Environmental Programs staff. A hard copy or electronic copy can be obtained upon request.

APPENDIX B North American Industrial Classification Codes (NAICS) for activities likely to use chemicals

APPENDIX C

Best Management Practice (BMP) design concepts

<https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-materials-handbook.pdf>

See the rest of this at the following link for more of this document.

<https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-hazardous-materials-list-information.pdf>



Building Services
808 West Spokane Falls Blvd
Spokane WA 99201-3343
(509) 625-6300

ENV-01
Critical and Hazardous
Materials List
Information
Source: SMC Ch 17E.010

Will you use or store:

Liquids other than water?
Products that can mix with water?

These are considered to be critical materials!

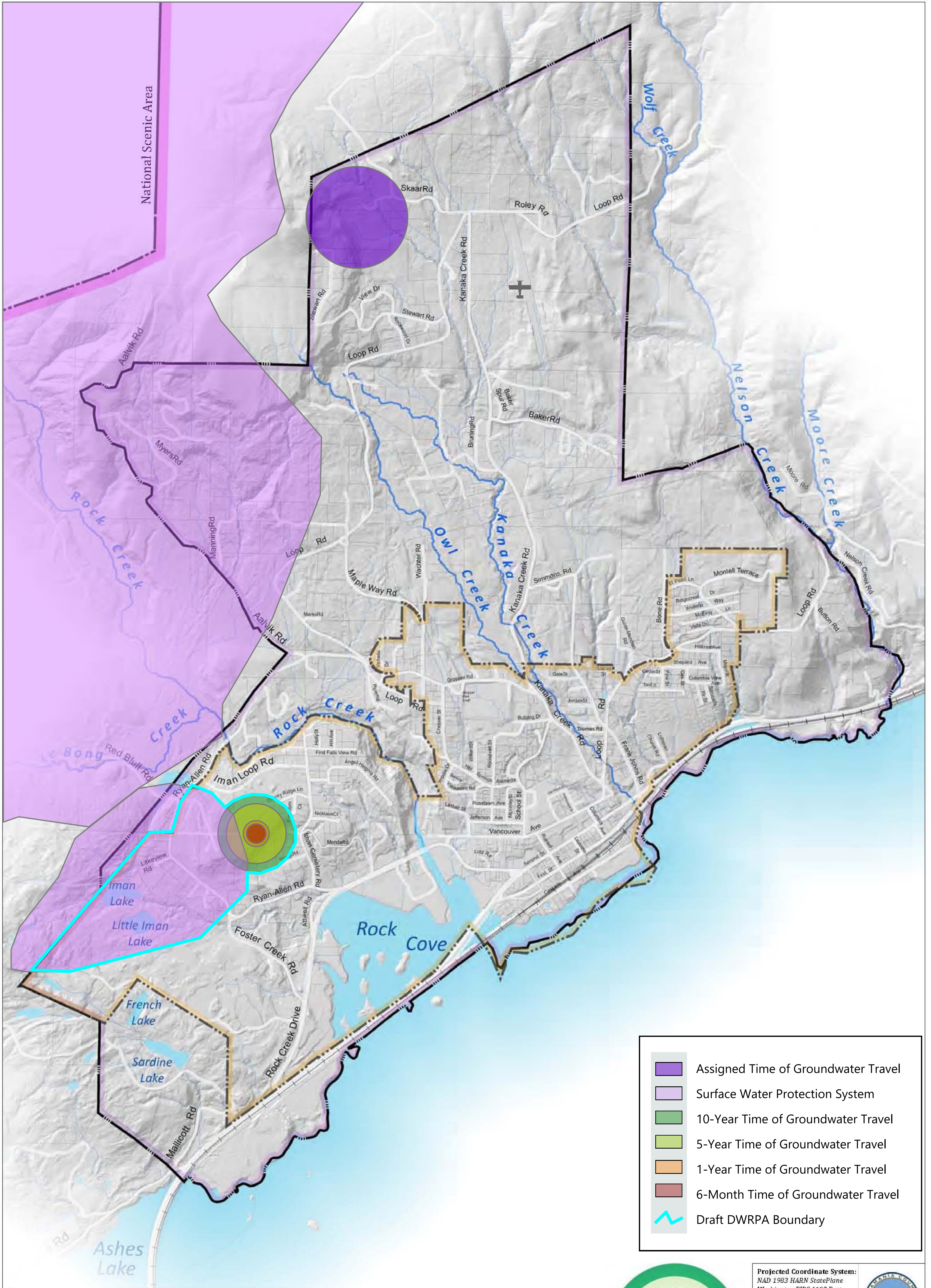
A **Critical Material** is any product that, once released to the environment, could contaminate our drinking water supply (the Spokane Aquifer). Critical Materials can be a flammable, combustible, inert material, health hazard, or non-hazardous product.








A **Critical Materials Review** is a process used to identify and prevent potential sources of surface and ground water pollution. A Review is required for all new businesses or additions to existing businesses. The exception to the review is residential, one- and two-family dwellings, detached buildings accessory to a dwelling, and building shell construction.

Where determined to be a hazard to the drinking water, existing businesses may be required to be subject to a Critical Materials Review.

Additional Links

- [USGS internal technical memo on aquifer vulnerability studies](#)
- [King County BAS for Critical Aquifer Recharge Areas](#)
- [Critical Aquifer Recharge Area Guidance](#)
- [Assessing Ground-Water Vulnerability to Contamination: Providing Scientifically Defensible Information for Decision Makers](#)



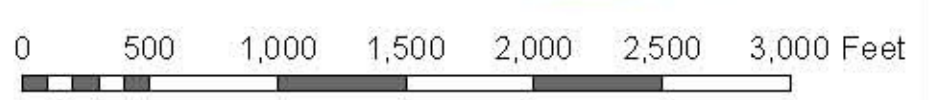
-  Assigned Time of Groundwater Travel
-  Surface Water Protection System
-  10-Year Time of Groundwater Travel
-  5-Year Time of Groundwater Travel
-  1-Year Time of Groundwater Travel
-  6-Month Time of Groundwater Travel
-  Draft DWRPA Boundary

Draft Drinking Water Resource Protection Areas

This map is intended for planning purposes only. The stream locations and designations shown on this map are approximations based on the best available information at the time of mapping. The location and designation should be confirmed prior to undertaking land use actions in or near these areas.



Scale: 1:18,000
1 inch = 1,500 feet



Projected Coordinate System:
NAD 1983 HARN StatePlane
Washington FIPS 4602 Feet
Projection Name:
Lambert Conformal Conic
Planar Units: US Survey Feet
Data Sources: Skamania Co,
Col. River Gorge Commission
LIDAR: DNR Flight 2005-2006
Map Created: December 2011



DISCLAIMER: This map product was prepared by Skamania County and is for information purposes only. It may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.