ENVIRONMENTAL CONSTRAINTS REVIEW

Overview and Summary

The segment of the SR 9 corridor between SR 522 and Schloman Road was reviewed for potential environmental issues or constraints that should be considered in making future roadway improvements in this area. For this environmental constraints review, the study corridor was divided into four nearly equal-length segments using mileposts as dividing lines from the southern end of the corridor at Milepost 0.0 to the northern end at Milepost 30.0.The analysis presented in this report is summarized by segment to describe environmental elements found along the corridor.

The portion of the corridor under study extends 500 feet east and west from the centerline of SR 9. Section 1 begins in the southern end of the corridor, north of the Snohomish County line near the intersection of SR 9 and SR 522. The section continues from Milepost 0.0 to Milepost 6.0. Section 2 (Milepost 6.0 to Milepost 14.0) begins near the intersection of East Lowell Larimer Road and SR 9, south of the City of Snohomish. Section 2 continues through the City of Snohomish and ends at Milepost 14.0, about 1.5 miles north of Highway 2. Section 3 begins at Milepost 14.0 and ends at Milepost 22.0. Section 3 passes through the western and eastern edges of the cities of Lake Stevens and Marysville, respectively. The final section of the study corridor, Section 4, continues north from Milepost 22.0 and ends at approximately Milepost 30.0, near the intersection of SR 9 and Schloman Road (just north of the Stillaguamish River). Section 4 passes through the City of Arlington. (See Appendix A – SR 9 Study Segment and Key Intersections Map for section divisions).

Geographic Information Systems (GIS) data provided by the Washington State Department of Transportation (WSDOT) was the primary source of information used for this review. GIS maps used for this review are provided in Appendix A and should be consulted for a greater understanding of the context of the study corridor and surrounding areas. Additionally, supplemental data and information was obtained from online sources including Snohomish County, U.S. Fish and Wildlife Service National Wetlands Inventory, U.S. Census Bureau, the City of Arlington, and aerial photos. A site visit was also made to field check information contained in the GIS maps. Historic and cultural resources information was obtained from the WSDOT Northwest Regional Office and is discussed generally in this report. Vegetation and wildlife habitat information is discussed by each section within the text. However, the GIS map produced for the analysis is not included in this report to prevent disclosure of the exact location of important habitat areas. Similarly, maps are not provided for archaeological or cultural sites discussed in this report.

General information on public utilities was obtained from the Snohomish County Comprehensive Plan and is presented in Appendix B of this report. These maps provided only enough detail to describe the general location of utilities in the study area, and do not reflect a thorough identification of all potential utility lines that may be present there. All other elements were primarily analyzed with the use of GIS data.

The environmental constraints review represents an overview of elements to be considered in determining the potential design and placement of improvements within the study corridor. This information is presented in an inventory format, and is not intended to be a detailed analysis of potential impacts associated with a particular action or project. The following is a brief description of considerations associated with elements of the natural and built environment reviewed for this report:

Streams and Floodplains

Improvements adjacent to streams and water bodies may affect plant and animal habitat and could result in water quality issues associated with roadway runoff and related pollutants. Floodplain areas may pose potential hazards for development.

Wetlands

These areas provide important plant and animal habitat and natural filtration for ground and surface water bodies. Encountering and/or altering wetlands may be harmful to the functions they provide.

Groundwater

The introduction of impervious surfaces can affect groundwater systems including aquifer recharge areas and sole source aquifers, which provide important sources of potable water for local communities.

Steep slopes and potential liquefaction zones

Steep slopes and liquefiable soils may represent unstable surfaces for roadway improvements. Landslides and earth movement associated with these features may pose potential constraints to placing structures on or near these areas.

Vegetation and wildlife habitat

The presence of threatened or endangered plant or animal species should be considered during improvement planning to avoid impacts harmful to their survival.

Land use

Considerations include the proximity of the roadway to land zoned for various purposes including commercial, residential, agricultural and industrial uses, as well as public open space and protection.

Farmland

The potential loss of prime and unique farmland, or other farmland categories of local or regional importance, could occur as a result of potential corridor improvements.

Public facilities

Encroachment on, or displacement of, government or public buildings and service centers, as well as recreational areas such as parks and trails, could occur as a result of potential corridor improvements.

Public utilities

The general location of water, sewer and high voltage power lines near the roadway is noted because of possible utility relocation needs.

Environmental justice

The presence of minority populations and low-income population groups is considered because these groups may be disproportionately affected by potential corridor improvements.

Cultural and archaeological resources

The general location of cultural and archaeological resources was reviewed to make note of any potential sites of historic and/or cultural significance in the vicinity of the roadway that could be affected by potential corridor improvements.

Hazardous materials

The potential presence of former or existing sources of hazardous materials near the roadway was reviewed. Areas of potential hazardous material concern were evaluated in terms of sites that have had documented releases to the environment and sites that have handled, treated, or stored hazardous materials without having a documented environmental release.

Noise

General consideration of potential sensitive noise receptor locations in the corridor study area was reviewed. Sensitive noise receptors may include such uses as residences, churches, schools, libraries, medical facilities, park space and other land uses where a quiet environment is desired.

The results of this environmental constraints review are summarized in Table 1 on the following page.

Table 1 - Summary of Potential Environmental Constraints by Corridor Section

Corridor Section	Streams and Floodplain	Wetlands	Groundwater	Slopes/Soils	Vegetation and Wildlife	Land Use	Farmland	Public Facilities	Public Utilities	Environmental Justice	Cultural and Archaeological	Hazardous Materials	Noise
Section 1	3 minor streams; Bear Creek; 1 area within 100-year floodplain	Approximately 4 wetland areas	Majority of section is sole source aquifer area; 1 area of medium aquifer sensitivity; 1 area of low sensitivity	Majority of section has very low to low liquefaction susceptibility; 1 area of moderate to high susceptibility; 1 steep slope area	No priority habitat areas	No constraints	Mostly classified as Prime Farmland, if irrigated; pockets of Prime, if drained and All Prime areas	2 buildings; 1 treatment plant;	5 water/sewer lines; 1 natural gas line;1 high voltage line area; 1 electrical substation	No constraints	1 potential site	32 potential sites	3 buildings; residential areas
Section 2	7 minor streams; Snohomish River; 1 area within 100-year floodplain; 1 slough	Approximately 20 wetland areas	Majority of section is low to medium aquifer sensitivity; southern third of section is high sensitivity area	Majority is very low to low liquefaction susceptibility; 1 area of medium to high soil liquefaction; 1 steep slope area	3 wildlife habitat areas	Agriculture zoning; urban horticulture zone	Mostly classified as All Prime farmland; 1 area Prime, if drained	1 building; two park and ride lots; 1 landfill	Several water/sewer lines; 1 sewage treatment plant	1 minority area; 4 low income areas	1 potential site	7 potential sites	1 school; residential areas
Section 3	2 streams; 1 floodplain area	Approximately 9 wetland areas	Nearly all of section has low aquifer sensitivity with small pockets of medium sensitivity in places	Nearly all of this section has very low liquefaction susceptibility with small pockets of low susceptibility; 1 substantial steep slope area	Eagle buffer area; sensitive plant area	No constraints	Mostly classified as All Prime Farmland	4 buildings; 2 parks	9 water/sewer lines; 1 natural gas line; high voltage lines; one substation	2 minority areas; 1 low income	No sites identified	14 potential sites	1 school; residential areas
Section 4	7 streams; Stillaguamish River; 1 area within 100-year floodplain	Approximately 11 wetland areas	Majority of section has low aquifer sensitivity; northern third has medium sensitivity with pockets of high sensitivity; small medium-sensitivity area	Majority has very low to low liquefaction susceptibility; 1 area is low to moderate susceptibility; 4 steep slope areas	No priority habitat areas	Agriculture zone; Old Town zone	Nearly all of section classified as All Prime Farmland; 1 area Prime, if drained;1 area Prime, if irrigated	6 buildings; one park and ride lot; 2 trails	12 water/sewer lines; one water treatment plant; 2 high voltage line areas	1 minority area; 2 low income areas	1 potential site	30 potential sites	10 buildings; residential areas

Section 1: Milepost 0.0 to Milepost 6.0

Natural Environment

Streams and Floodplains

The roadway crosses three minor streams from east to west along this section of the corridor study area as follows:

- Approximately 750 feet north of Milepost 0.0
- Immediately south of Milepost 1.0
- Immediately north of Milepost 2.0

In addition to these stream crossings, Bear Creek runs parallel to the west side of SR 9 within 500 feet of the roadway, from approximately Milepost 0.0 to Milepost 1.0. A 100-year floodplain area is located adjacent to Bear Creek in this area.

Wetlands

Several wetland areas exist along the roadway in this section of the corridor. Potential areas where wetlands may be encountered within 500 feet of SR 9 include:

- West side of SR 9 approximately 1,700 feet north of Milepost 0.0
- West and east sides of SR 9 immediately south of Milepost 1.0
- A small wetland area crosses both sides of SR 9 at approximately 900 feet north of Milepost 1.0
- West side of SR 9 approximately 1,100 feet south of Milepost 2.0

Groundwater

The corridor study area near Milepost 0.0 is characterized as having moderate to high aquifer sensitivity on both sides of the road. At approximately 2,000 feet north of Milepost 0.0, the roadway enters a “sole source aquifer” recharge area that extends north for approximately 4.5 miles, ending just north of Milepost 5.0. North of Milepost 5.0 to the end of this section the corridor study area is characterized as having low aquifer sensitivity.

Steep Slopes and Potential Liquefaction Zones

An area of soils with a potential liquefaction susceptibility rating of “moderate to high” is located on the west side of SR 9 from Milepost 0.0 to a point just north of Milepost 1.0. A small portion of a critical slope area is located on the east side of SR 9 within 500 feet to the south of Milepost 0.0.

Vegetation and Wildlife

No priority vegetation or wildlife habitats were identified within 500 feet of SR 9 in this section of the corridor study area.

Built Environment

Land Use

Most of this section of the corridor study area is zoned for residential use, with some dispersed pockets of commercial and industrial uses near SR 9. No special land use zones were noted in this section.

Farmland

An area of soils classified as “prime farmland if drained” is located on the west side of SR 9 from north of Milepost 0.0 to Milepost 1.0. South of Milepost 1.0, this area expands to both sides of SR 9 and continues on the west side of SR 9 for approximately 600 feet. A small area of soil with the same classification is located on the east side of SR 9 and crosses the roadway at approximately 900 feet north of Milepost 1.0.

Immediately north of Milepost 2.0 another small area of soils classified as “prime farmland if drained” is located on both sides of SR 9.

Beginning at approximately 750 feet north of Milepost 2.0 an area of soils classified as “prime farmland” extends along both sides of SR 9, ending approximately 1,300 feet south of Milepost 3.0. Beginning at this same location an area of soils classified as “prime farmland if drained” is located west of SR 9, and extends along the west side of the roadway until ending at approximately 1,700 feet north of Milepost 3.0.

An area of soils classified as “prime farmland” crosses both sides of SR 9 at approximately 1,650 feet south of Milepost 4.0.

An area of soils classified as “prime farmland” is located along the east side of the roadway from approximately 1,200 feet south of Milepost 5.0 and extends to approximately 300 feet north of Milepost 5.0.

An area of soils classified as “prime farmland if drained” crosses both sides of SR 9 at approximately 1,500 feet north of Milepost 5.0.

Beginning approximately 1,200 feet south of Milepost 6.0 a large area of soils classified as “prime farmland” extends along both sides of SR 9 until Milepost 6.0.

Public Facilities

Several government and public facility buildings are located along the project corridor. In Section 1 the following facilities were noted:

- The Bear Creek Grange building is located on the east side of SR 9 approximately 1,300 feet north of Milepost 0.0.
- Snohomish County Fire Protection district 7, Station 1 is located on the east side of SR 9 approximately 800 feet south of Milepost 4.0.
- The King County Brightwater waste water treatment plant is under construction on the east side of SR 9 at the intersection with 228th SE. The treatment plant system is expected to be completed by 2010.

Public Utilities

Water and sewer lines noted within this section include:

- A 10-inch to 18-inch water line is located along SR 9 immediately north of 228th Street SE.
- A 10-inch to 18-inch water line extends along Maltby Road, ending at the west side of the intersection with SR 9.
- A portion of a 10-inch to 18-inch water line is located along SR 9, approximately one-half mile north of Maltby Road.

- A 10-inch to 18-inch water line extends along 180th Street SE, ending at the east side of the intersection with SR 9. A portion of a 10-inch to 18-inch water line is located along SR 9 approximately one-quarter mile north of 180th Street SE. A water standpipe or reservoir is located adjacent to the west side of SR 9 at this location.

- A 10-inch to 18-inch sewer line is located along SR 9 at the intersection with 228th Street SE. A greater-than-24-inch sewer line ends at the west side of SR 9 approximately one-quarter mile south of 228th Street SE, very near the corridor study area's southern terminus.

The Williams Gas Pipeline (West) crosses Section 1 of the project corridor half-way between Milepost 3.0 and Milepost 4.0.

Major PUD high voltage (115KV) power lines were identified from a Snohomish County Electric Power Facilities Map. In this section of the study corridor, high voltage lines extend along SR 9 from near Maltby Road to 164th Street SE. PUD substations are located on the east side of SR 9 near Maltby Road and east of SR 9 near 180th Street SE.

Environmental Justice

No census tracts with populations with greater than 10% poverty status were identified in this segment. Also, no census tracts with minority populations greater than 10% were identified.

Cultural and Archaeological Resources

One potential historic resource was identified within Section 1, near the intersection of SR 9 and SR 524. The resource has presently been identified as a potential historic resource and is being evaluated more completely for confirmation of its historic eligibility.

Hazardous Materials

Thirty-two hazardous materials sites are located along Section 1 of the project corridor. The majority of these sites are located between Mileposts 0.0 and 1.0 and between Mileposts 3.0 and 4.0. Twenty-six of the 32 sites are not considered a concern because they are sites that treat, store, or handle hazardous materials, but they have not had a documented hazardous material release or environmental violation. The remaining six sites have had a documented hazardous material release to the environment and have the potential to contribute to a hazardous material concern along Section 1 of the project corridor. All six sites with documented releases are involved in State or Voluntary cleanup efforts.

Noise

Noise sensitive land use in Section 1 is primarily limited to residential housing which covers the majority of the first project section. Two planned residential developments are located within 500 feet of the project corridor between Milepost 2.0 and Milepost 3.0. Noise levels at all residential locations within 500 feet of SR 9 may change in relation to the alignment of SR 9 throughout Section 1.

No churches, schools, libraries, medical facilities, or parks are located within 500 feet of SR 9 in Section 1.

Two schools, one church, and Shadow Lake Park are all located within 1.5 miles of SR 9 in Section 1. Noise levels at these sites are not likely to experience a noticeable change in relation to an SR 9 alignment change that is within 500 feet of the current alignment of Section 1.

Primary Potential Constraints

The three primary elements where constraints were noted in Section 1 included the hazardous materials, groundwater and slopes/soils elements. For hazardous materials, the most potential sites among the four sections were noted in Section 1. The location of much of this section within a sole source aquifer area was noted under the groundwater element. Liquefaction and critical slope areas were noted in the slopes and soils element.

Section 2: Milepost 6.0 to Milestone 14.0

Natural Environment

Streams and Floodplains

The roadway crosses five minor streams between Milepost 6.0 and Milepost 14.0.

Streams located within the study corridor are found at the following locations:

- Approximately 1,000 feet north of Milepost 6.0 on the far eastern edge of the study corridor
- Approximately 850 feet north of Milepost 7.0
- Approximately 2,130 feet north of Milepost 7.0
- Two minor streams converge within the study corridor at approximately 2,300 feet north of Milepost 10.0
- Immediately north of Milepost 12.0
- Approximately 1,600 feet north of Milepost 12.0 and within the footprint of the SR 2 Interchange

The Snohomish River also crosses SR 9 at approximately 1,600 feet north of Milepost 9.0. The two minor streams 2,300 feet north of Milepost 10.0 flow into the Snohomish River.

Hanson Slough is another water body that falls within the 500-foot study corridor. It is located approximately 1,500 feet north of Milepost 8.0 on the east side of the roadway. In line with Milepost 11.0 and east of the roadway, Blackmans Lake is just outside of the study corridor, but its associated wetlands are within the 500 foot corridor. FEMA 100 and 500-Year floodplain areas cover nearly the entire study corridor between Milepost 7.0 and Milepost 10.0, corresponding to the course of the Snohomish River.

Wetlands

In addition to wetlands adjacent to Blackmans Lake, several wetlands are found within the corridor study area between Milepost 6.0 and Milepost 14.0. Approximately 20 different wetland areas are found in the study corridor, with a relatively high concentration found between Milepost 9.0 and Milepost 14.0. Types of wetlands found along the corridor include freshwater forested/shrub wetland, freshwater emergent wetland, freshwater pond and riverine wetlands. Three wetland units in the corridor are likely riparian forested wetlands because of their location next to streams and rivers.

Groundwater

The corridor segment between Milepost 7.0 and Milepost 9.0 has been identified as an area with high aquifer sensitivity rating. The high aquifer sensitivity area continues approximately 2,900 feet north of Milepost 9.0. This area is roughly equivalent to the FEMA 100-year floodplain zone, as well as zones having moderate to high liquefaction susceptibility ratings.

Steep Slopes and Potential Liquefaction Zones

An area about 2.5 miles in length, from Milepost 7.0 to approximately 1,900 feet south of Milepost 10.0 is classified as having a moderate to high liquefaction susceptibility rating. The area is nearly the same as the FEMA 100-year floodplain zone identified on GIS maps. A critical slope area is adjacent to the western edge of the corridor study area approximately 600 feet south of Milepost 7.0.

Vegetation and Wildlife

This section of the corridor includes portions of both a bull trout-designated critical habitat and a bull trout recovery area. The section also includes a one-half mile bald eagle buffer zone. These three wildlife-related areas are found adjacent to where the Snohomish River crosses SR 9, between Milepost 9.0 and Milepost 10.0.

Built Environment

Land Use

The area between Milepost 7.0 and Milepost 9.0 is zoned for Agriculture-10 Acres. This zone is intended to protect agricultural lands in Snohomish County. The zone continues approximately 1,400 feet north of Milepost 9.0. Aerial photos indicate that the area is currently used for agricultural purposes.

Within the City of Snohomish, an Urban Horticulture Zone and an Airport Industry Zone are located within the corridor. An Industry Zone is also located within the section.

Future land uses that could be considered constraints for SR 9 improvements, including farmland and urban horticulture uses, are located along the corridor between Milepost 7.0 and Milepost 10.0.

Farmland

There is a high prevalence of prime farmland found in the study corridor between Milepost 7.0 and Milepost 14.0. Only a small portion of the corridor is not classified as prime farmland. Areas classified as 'Farmland of Statewide Importance' are found north of Milepost 6.0 on both sides of the roadway and in between Milepost 9.0 and Milepost 12.0. Aerial photos indicate that the area between Milepost 7.0 and Milepost 9.0 is currently in agricultural use.

Public Facilities

There are four government buildings and facilities located within the study corridor in Section 2. These include the Snohomish County Cathcart landfill, located on the west side of SR 9 at approximately 1,500 feet north of Milepost 6.0; a Park-and-Ride lot approximately 500 feet north of Milepost 9.0 and on the west side of SR 9; a Snohomish School District Building (#201) approximately adjacent to Milepost 11.0, on the east side of the roadway; and another Park-and-Ride lot located approximately 850 feet north of Milepost 12.0 on the east side of SR 9 (near the SR 2 interchange)..

Public Utilities

A sewage treatment plant is located south of the City of Snohomish and the Snohomish River on the west side of the roadway. A 12-inch to 18-inch sewer line leads to the sewage treatment plant and crosses SR 9.

Through the City of Snohomish, a public waterline with a diameter less than 10 inches is crossed by SR 9 approximately 2,500 feet south of Milepost 9.0 on the east side of the roadway. Through the City of Snohomish, several waterlines less than 10 inches and between 10 to 18 inches are encountered on both the east and west sides of the roadway

between Mileposts 10.0 and 12.0. A major waterline with a diameter greater than 18 inches crosses the roadway at Milepost 12.0.

A 10-inch to 18-inch water line is located along SR 9 immediately north of 228th Street SE.

A 10-inch to 18-inch water line extends along Maltby Road, ending at the west side of the intersection with SR 9.

A portion of a 10-inch to 18-inch water line is located along SR 9, approximately one-half mile north of Maltby Road.

A 10-inch to 18-inch water line extends along 180th Street SE, ending at the east side of the intersection with SR 9. A portion of a 10-inch to 18-inch water line is located along SR 9 approximately one-quarter mile north of 180th Street SE. A water standpipe or reservoir is located adjacent to the west side of SR 9 at this location.

A 10–inch to 18-inch sewer line is located along SR 9 at its intersection with 228th Street SE. A greater-than-24-inch sewer line ends at the west side of SR 9 approximately one-quarter mile south of 228th Street SE, near the corridor study area's southern terminus.

A natural gas line crosses SR9 approximately 1,000 feet south of SE 180th SE.

High voltage PUD power lines in this section are located near SR 9, beginning near 92nd Street SE and extending north to 20th Street SE. PUD substations are located near 92nd Street SE, near the SR 2 intersection, and near the 20th Street SE intersection.

Environmental Justice

One Census Block Group in the segment has a minority population between 10-20%. This Census Block Group covers the segment of the corridor from roughly Milepost 7.0 to approximately 1,800 feet north of Milepost 9.0.

According to U.S. Census data, portions of four Census Block Groups having more than 10 percent of households below the poverty level are within the corridor study area in Section 2:

- Block Group 2, Census Tract 521.11
- Block Group 4, Census Tract 524.01
- Block Group 5, Census Tract 524.01
- Block Group 2, Census Tract 525.02

These are located on the west side of the roadway between Mileposts 6.0 and 7.0 and on both sides of the roadway between Mileposts 9.0 and 11.0.

Cultural and Archaeological Resources

According to WSDOT database information, there is one potential archaeological site in Section 2 near Milepost 7.0. This site is being tested for further archaeological findings.

Hazardous Materials

Seven hazardous materials sites are located along Section 2 of the project corridor. Most of the seven sites are located near the Snohomish city center, between Mileposts 9.0 and 11.0. Four sites are not considered a concern because they are sites that treat, store, or handle hazardous materials, but they have not had a documented hazardous material release or environmental violation. The remaining three sites have had a documented hazardous material release to the environment and have the potential to contribute to a hazardous

material concern along Section 2 of the project corridor. Two of the three sites with documented releases are involved in site remediation or cleanup efforts.

Noise

Noise sensitive locations in Section 2 begin with residential housing on the southern end that covers the first half mile of the project section. Land use between Mileposts 7.0 and 9.0 is primarily limited to undeveloped agricultural land with few if any noise sensitive sites. Residential properties are assumed to be located within the more densely developed area from approximately 1,000 feet north of Milepost 9.0 to Milepost 12.0, located in the City of Snohomish. Single and multi-family residential units characterize most of land from Milepost 12.0 to the north end of Section 2. Noise levels at all residential locations within 500 feet of SR 9 may change in relation to the alignment of SR 9 throughout Section 2.

One school is located within 500 feet of SR 9 in Section 2, just south of Milepost 11.0. This school may experience a change in noise levels depending on an alignment shift of SR 9 near Milepost 11.0. No churches, libraries, medical facilities, or parks are located within 500 feet of SR 9 in Section 2.

Eight schools, one church, one library, and five medical facilities are all located within 1.5 miles of SR 9 in Section 2. Noise levels at these sites are not likely to experience a noticeable change in relation to an SR 9 alignment change that is within 500 feet of the current alignment along Section 2.

Primary Potential Constraints

In Section 2 the main constraints noted were within the streams, wetlands and vegetation/wildlife habitat elements. For streams and floodplains, the roadway crosses several streams and the Snohomish River, as well as the Snohomish River floodplain. There are numerous small wetland areas along this section of the corridor, making it more likely that these areas would be affected by potential improvements. Three wildlife habitat areas were noted, indicating the potential that plant or animal species may be affected by future improvements in this section.

Section 3: Milepost 14.0 to Milepost 22.0

Natural Environment

Streams and Floodplains

SR 2 crosses two unnamed streams in this section of the study corridor. Stream crossings occur at the following locations:

- Approximately 1,800 feet south of Milepost 17.0
- Immediately north of Milepost 19.0

A small FEMA 500-year floodplain area is located on the east side of SR 9 adjacent to Milepost 20.0.

Wetlands

Areas where wetlands may potentially be encountered near SR 9 in this section include the following:

- West side of SR 9, approximately 1,800 feet north of Milepost 14.0
- West side of SR 9, approximately 1,200 feet south of Milepost 16.0

- West side of SR 9, immediately south of Milepost 16.0
- Both sides of SR 9 approximately 2,300 feet north of Milepost 16.0
- West side of SR 9, approximately 400 feet north of Milepost 17.0, extending along the roadway approximately 1,800 feet
- Immediately south of Milepost 18.0 on the west side of SR 9 and extending to the east side of SR 9, approximately 900 feet south of Milepost 18.0
- Approximately 400 feet south of Milepost 19.0 on the east side of SR 9
- A large wetland area on the east side of SR 9 extending from approximately 600 feet north of Milepost 20.0 to approximately 2,100 feet south of Milepost 20.0
- A small wetland on the east side of SR 9 approximately 150 feet north of Milepost 21.0

Most wetlands in the area are freshwater forested/shrub wetlands.

Groundwater

The majority of the corridor study area within this section is characterized by low aquifer sensitivity, except for localized areas of medium aquifer sensitivity. Areas of medium aquifer sensitivity are located approximately 300 feet south of Milepost 15.0 on both sides of SR 9, and approximately 1,600 feet north of Milepost 16.0, a small area of medium sensitivity occurs crossing the roadway for east to west. Approximately 2,700 feet north of Milepost 16.0 a small area of medium aquifer sensitivity is located along the east side of SR9.

Steep Slopes and Potential Liquefaction Zones

The majority of slopes in this area of the corridor have low to very low potential liquefaction susceptibility. One area with a critical slope rating is located approximately 1,500 feet south of Milepost 17.0 on both sides of the roadway. Two other small, isolated critical slope areas are located approximately 850 feet north of Milepost 14.0 and approximately 2,500 feet north of Milepost 19.0. The former is located just east of the roadway and latter crosses it.

Vegetation and Wildlife

There are two plant and wildlife sensitivity areas that may be encountered near SR 9 in this section of the study corridor. The roadway is within a one-half mile bald eagle buffer area approximately halfway between Mileposts 16.0 and 17.0. Further north, near Milepost 20.0, a sensitive plant area extends within 500 feet of the east side of SR 9, near Martha Lake.

Built Environment

Land Use

The majority of adjacent land along this section of the study corridor is zoned for residential use at urban or rural densities, with some occasional commercial use areas also present. No land use zones of concern were noted in this section.

Farmland

The majority of this section of the study corridor contains soils that are classified as “prime farmland.” Two small areas of soils classified as “farmland of statewide importance” are located approximately midway between Mileposts 16.0 and 17.0, and south of Milepost 18.0. A portion of the soils east of Milepost 19.0 are also classified as “farmland of statewide importance.” A large area of soils classified as “farmland of statewide importance” is located on both sides of SR 9 starting north of Milepost 21.0 and extending for approximately 2,000 feet to the north.

Public Facilities

Government and public facilities in this section of the study corridor include: Skyline Elementary School, located west of SR 9 and approximately 1,500 feet south of Milepost 15.0; Hillcrest Elementary School located on the west side of SR 9 just north of Milepost 15.0; and East Sunnyside School located west of SR 9 near the intersection with 42nd Street NE.

Lake Martha Regional Park is located at approximately Milepost 20.0, on the east side of SR 9. The Snohomish County Centennial Trail crosses SR 9 diagonally just north of Milepost 21.0.

Public Utilities

Public utility lines identified within this section of the study corridor include:

- A 12-inch to 18-inch sewer line crosses SR 9 just north of Market Place
- A 18-inch to 24-inch sewer line crosses SR 9 at SR 204 and a lift station is located on the east side of SR 9 at this location.
- A water line greater than 18 inches crosses SR 9 at 20th Street SE
- A water line standpipe/reservoir is located at the SR 9 intersection with 4th Street SE and a 10-inch to 18-inch water line runs north adjacent to the east side of SR 9 from 4th Street SE for approximately one-quarter mile, where it crosses SR 9 to the west.
- A 10-inch to 18-inch water line runs along SR 9 beginning approximately one-quarter mile south of SR 204 and extending approximately two miles to the north.
- A 10-inch to 18-inch water line on the west side of SR 9 ends at the intersection with Lundeen Parkway.
- A 10-inch to 18-inch water line crosses SR 9 at Soper Hill Road.
- A 10-inch to 18-inch water line crosses SR 9 at East Sunnyside School Road.
- A water line greater than 18-inches is located on the west side of SR 9 at 64th Street NE, and a water line standpipe/reservoir is located at this location.

A natural gas line is located within the roadway corridor between Soper Hill Road and 44th Street NE.

Major PUD high voltage (115KV) power lines were identified from a Snohomish County Electric Power Facilities map. In this section of the study corridor, high voltage lines extend to the west of SR 9 from the southern portion of this section, north to approximately SR 92. A PUD substation is located near the SR 9 and SR 204 intersection.

Environmental Justice

In this section of the study corridor, two areas of the corridor were identified where GIS mapping indicated the potential presence of minority population groups greater than 10%. The first potential minority population area extends from the southern end of this section near Milepost 14.0 to approximately Milepost 17.0. The second potential minority population area includes a portion of the west side of SR 9 beginning at 84th Street NE and extending north to 108th Street NE near Milepost 22.0.

One Census tract block group within this section of the corridor study area was identified where there were more than 10% of households below the poverty level. Block Group 2, Census Tract 526.04 is located within the SR 9 corridor, approximately between Milepost 15.0 and Milepost 16.0.

Cultural and Archaeological Resources

No cultural or archaeological resources were identified within this section of the corridor study area.

Hazardous Materials

Fourteen hazardous materials sites are located along Section 3 of the project corridor. Most of the 14 sites are located between Milepost 15.0 and Milepost 16.0. Nine of the 14 sites are not considered a concern because they are sites that treat, store, or handle hazardous materials, but they have not had a documented hazardous material release or environmental violation. The remaining five sites have had a documented hazardous material release to the environment and have the potential to contribute to a hazardous material concern along Section 3 of the project corridor. Four of the five sites with documented releases are involved in State or Voluntary cleanup efforts.

The Williams Gas Pipeline (West) is located within the 500 feet of the project corridor between Milepost 17.0 and Milepost 18.0. The pipeline crosses SR 9 approximately half-way between Mileposts 17.0 and 18.0.

Noise

Noise sensitive locations in Section 3 include single-family, multi-family, and planned residential development throughout the large majority of Section 3. Areas of commercial and industrial development are located within Milepost 15.0 and Milepost 17.0. Noise levels at all residential locations within 500 feet of SR 9 may change in relation to the alignment of SR 9 throughout Section 3.

One school is located within 500 feet of SR 9 in Section 3, approximately half way between Milepost 14.0 and Milepost 15.0. This school may experience a change in noise levels depending on an alignment shift of SR 9 in this area. No schools, churches, libraries, medical facilities, or parks are located within 500 feet of SR 9 in Section 3.

Three schools and two parks are all located within 1.5 miles of SR 9 in Section 3. Noise levels at these sites are not likely to experience a noticeable change in relation to an SR 9 alignment change that is within 500 feet of the current alignment of Section 3.

Primary Potential Constraints

The three main constraints noted within Section 3 included wetlands, utilities, and farmland. Several wetland areas near the roadway were identified along this section. The presence of water, sewer, gas, and high voltage lines near the roadway was noted in the utilities element. The majority of soil along this section was characterized as Prime Farmland making it likely that future improvements would result in converting this land to roadway use.

Section 4: Milepost 22.0 to Milepost 30.0

Natural Environment

Streams and Floodplains

Several creeks and streams, as well as one river, are located in this section between Milepost 22.0 and Milepost 30.0. Three streams cross the roadway between Mileposts 22 and 23. One stream is located approximately 2,300 feet north of Milepost 22.0, another is approximately 3,400 feet north of the Milepost and the third is approximately 4,100 feet north of Milepost 22. A stream runs nearly perpendicular to the roadway approximately 2,100 feet from Milepost 24.0. The stream runs on both the east and west sides of the roadway. Another stream is located on the east side of the roadway near Milepost 26.0 and closely follows the alignment of the roadway for about 3,400 feet before crossing to the west side of the roadway before Milepost 28.0. On the eastern side of the road, two creeks converge approximately 225 feet east of the roadway before crossing to the west side of the highway approximately 2,000 feet north of Milepost 28.0. Near the end of the study corridor, the Stillaguamish River crosses the highway approximately 1,000 feet south of Milepost 30.0.

Wetlands

Several wetlands are found in Section 4 between Mileposts 22.0 and 23.0 and near Milepost 25.0. These wetlands are mostly freshwater forested/shrub wetlands along with a minor proportion of freshwater emergent wetlands. Eight wetlands are found approximately 700 feet north of Milepost 22.0 and end around Milepost 23.0. These occur on both sides of the roadway. One large wetland is on the western side of the roadway and within 750 feet south, and 1,500 feet north, of Milepost 25.0. Two smaller wetlands—including a freshwater forested/shrub wetland—are found on the eastern side of the corridor, approximately 250 feet south of Milepost 25.0.

- A small wetland on both sides of SR 9 at the stream crossing approximately 2,300 feet north of Milepost 22.0
- West side of SR 9 approximately 3,300 feet north of Milepost 22.0

Groundwater

A small area on both sides of SR 9 immediately south of Milepost 23.0 is classified as having medium aquifer sensitivity. From Milepost 23.0 north to approximately 2,500 feet north of Milepost 27.0, the corridor study area is considered as having low aquifer sensitivity. From approximately 2,300 feet south of Milepost 28.0 to approximately Milepost 29.0, the corridor study area is classified as having medium aquifer sensitivity. Beginning at Milepost 29.0 to the end of the corridor study area at Milepost 30.0, the east side of SR 9 is classified medium aquifer sensitivity and the west side is classified as having medium and high aquifer sensitivity.

Approximately 2,300 feet north of Milepost 22.0, an area of medium aquifer sensitivity is located on both sides of SR 9 and extends to Milepost 23.0.

Steep Slopes and Potential Liquefaction Zones

Steep slopes are located between Milepost 27.0 and Milepost 30.0 on both sides of the corridor. Steep slopes are located near Milepost 30.0 on the east side of the roadway, extending for about 700 feet. Another steep slope area is noted approximately 4,100 feet north of Milepost 27.0 on the eastern side of the roadway. A group of steep slope areas is centered on Milepost 29.0, extending roughly 1,500 feet to the north and south of this milepost, primarily along the western side of the roadway. A high liquefaction susceptibility area is located at the north end of this section, near Milepost 30.0, and also near Milepost 29.

Vegetation and Wildlife

No priority habitat areas were identified within this section of the corridor study area.

Built Environment

Land Use

An area of land between Milepost 29.0 and Milepost 30.0 on the western side of the roadway is zoned Agriculture 10-Acres. Another potential land use zone of note is the ‘Old Town Residential District’ zone, which is intended to preserve the historic quality of the traditional town center (City of Arlington 2007). This zone is located in Arlington, near the northern terminus of this section.

Farmland

Most of the corridor in this section consists of prime farmland, which includes the following categories: “Prime farmland if drained” and “prime farmland if irrigated.” A small area of Farmland of Statewide Importance is found approximately 2,400 feet north of Milepost 24.0

on the west side of the roadway, which is also the location of one of the few areas of Not Prime Farmland. Another area of Not Prime Farmland is an estimated 3,500-foot long area located roughly 860 feet north of Milepost 27.0. Areas zoned for agricultural use and identified as prime farmland occur within the corridor north of Milepost 29.0 (south of the Stillaguamish River) on the western side of the roadway and on both sides of the roadway north of the river until the end of the corridor just past Milepost 30.0.

Public Facilities

There are nine public facilities located within the study corridor. Most are located within the municipal boundaries of the City of Arlington. In Section 4, the following facilities were noted:

- Regency Care Center is located 3,500 feet north of Milepost 28.0 on the west side of the roadway.
- The Arlington Chamber of Commerce is located approximately 260 feet north of Milepost 29.0 on the east side of the roadway.
- The Arlington Park and Ride is on the west side of the roadway approximately 1,500 feet north of Milepost 29.0.
- KC Auto Licensing is located to the east of the Park and Ride and roadway.
- Arlington Post Office is located on the east side of the roadway, approximately 2,300 feet north of Milepost 29.0 and is marginally within the study corridor.
- Pioneer Elementary School is located on the west side of the roadway near Milepost 27.0.
- Arlington High School is located on the east side of the roadway near Milepost 27.0.
- The Centennial Trail and Whitehorse Trail are located between Mileposts 29.0 and 30.0 on the eastern side of the roadway.

Public Utilities

A sewage treatment plant is located south of Milepost 30.0. A 12-18 inch sewer trunk line is crossed by SR 9 approximately 1,200 feet north of Milepost 28.0. Near the vicinity of Milepost 29.0, the roadway is near an 8-inch to 12-inch sewer line and a 12-inch to 18-inch sewer line.

Several types of public water systems facilities are noted within the study corridor in the City of Arlington in Section 4. These include a water purification plant, a standpipe or reservoir, a waterline with a diameter less than 10-inch and a 10-inch to 18-inch waterline.

A standpipe/reservoir is located at Milepost 26.0 on the east side of the roadway. At the same location, a 10-inch to 18-inch water line crosses SR 9. Between Milepost 26.0 and Milepost 27.0, a high concentration of water lines with diameters less than 10 inches are found in the corridor on both sides of the roadway. Near Milepost 28.0, the roadway crosses a 10-inch water line and a 10-inch to 18-inch water line. Between Milepost 28.0 and Milepost 30.0, a high concentration of 10-inch water lines exists, particularly on the eastern side of the roadway. A water purification plant is noted south of Milepost 30.0.

The roadway crosses two high voltage PUD electrical power transmission lines in the corridor near the intersection with 204th Street NE, and near the SR 530 intersection.

Environmental Justice

Only one census block group shows a minority population percentage higher than 10% in Section 4. The census block group is in the northern end of the section between Milepost 28.0 and 30.0.

According to U.S. Census data, two of the Census Block Groups within the project corridor had more than 10 percent of total households below the poverty level:

- Block Group 5, Census Tract 535.04
- Block Group 2, Census Tract 535.04

These Census Tracts are located between Mileposts 28 and 30, on the east side of the roadway.

Cultural and Archaeological Resources

One potential historical site has been identified in Section 4 near Milepost 30.0. The historic eligibility of this site is being evaluated more completely.

The Stillaguamish Tribe has indicated that potential tribal artifacts may be encountered along the entire corridor study area, particularly in the north near Arlington, in Section 4.

Hazardous Materials

Thirty hazardous materials sites are located along Section 4 of the project corridor. Most of the 30 sites are located in Arlington, between Milepost 28.0 and Milepost 30.0. All 30 hazardous material sites are not considered a concern because they are sites that treat, store, or handle hazardous materials, but they have not had a documented hazardous material release or environmental violation. None of the 30 sites have had a documented hazardous material release to the environment and are not likely to contribute to a hazardous material concern along Section 4 of the project corridor.

Noise

Residential development is the primary land use throughout the large majority of Section 4. Land use in the northernmost mile of the project corridor, from Milepost 29.0 to Milepost 30.0 is split evenly between residences and undeveloped agricultural land. Noise levels at all residential locations within 500 feet of SR 9 may change in relation to the alignment of SR 9 throughout Section 4.

One medical facility is located within 500 feet of SR 9 in Section 4, approximately 1,000 feet south of Milepost 29.0. This facility may experience a change in noise levels depending on an alignment shift of SR 9 in this area. No schools, churches, libraries, or parks are located within 500 feet of SR 9 in Section 4.

Seven schools, one church, one library, and one medical facility are all located within 1.5 miles of SR 9 in Section 4. Noise levels at these sites are not likely to experience a noticeable change in relation to an SR 9 alignment change that is within 500 feet of the current alignment of Section 4.

Primary Potential Constraints

In Section 4, the main potential constraints included utilities, hazardous materials, and public facilities elements. This section included several, water and sewer lines, as well as high voltage electrical lines near the roadway. For hazardous materials, numerous potential hazardous materials sites were noted in this section. This section also has the most public facilities of the four sections, with several public buildings, a trail and a park and ride located near the roadway.

Potential Environmental Permits

As noted in the environmental constraints review, there are several areas where potential improvements along the roadway may encounter issues that would require environmental permits and associated reviews. The table below summarizes permits and activities that may be needed related to potential project area actions or improvements.

Table 2 - Environmental Permits Potentially Needed for Roadway Improvements

Type of Permit	Issuing Agency	Action Requiring Permit
Hydraulic Project Approval (HPA)	Washington State Department of Fish and Wildlife	Work that uses, diverts, or changes the natural flow or bed of state waters.
Water Quality Certification (Section 401 permit)	Washington State Department of Ecology	Applying for a federal license or permit for any activity that could cause a discharge of dredge or fill material into water or wetlands, or excavation into water or wetlands.
Army Corps of Engineers 404 Permit	U.S. Army Corps of Engineers	Placing a structure, excavating (including land clearing), or discharging dredged or fill material in waters of the U.S., including wetlands.
Coastal Zone Management Certification	Washington State Department of Ecology	Conducting projects authorized by federal agencies and/or applying for certain federal permits or funding.
Shoreline Substantial Development Permit	Snohomish County or local jurisdiction	Interfering with normal public use of water or shorelines of the state, or developing or conducting activity valued at $2,500 or more on the water or shoreline area.
Shoreline Conditional Use Permit	Snohomish County or local jurisdiction, with approval by State Department of Ecology	Any project that also requires a Shoreline Substantial Development Permit. Also, projects meeting certain criteria in the Shoreline Master Program or for unclassified uses.
Critical Areas Standards for Local Project Permits	Snohomish County or local jurisdiction	Proposing project actions in or near critical areas as defined by local critical areas ordinance or regulations.
Clearing and Grading Permit	Snohomish County or local jurisdiction	Land clearing or grading associated with site preparation or development activities.

Conditions attached to these permits and approvals may affect the design and timing of proposed improvements. This list is not complete and a final determination of all federal, state, and local permits and approvals needed for proposed improvements would need to be made subject to site-specific actions.

Bibliography

Chidley, Michael. 2007. WSDOT: Northwest Regional Office. Personal interview. May 22, 2007.

City of Arlington. 2007. *City of Arlington Land Use Code*. Section 20.36.010 (e). April 4, 2007. URL: http://www.ci.arlington.wa.us/documents/Planning%20Division/AMC%20Title%2020%2C%20Land%20Use%20Code-Master%20March%2030%2007%20KR.pdf. Accessed on May 21, 2007.

Snohomish County. 2002. *Chapter 30.21 – Purpose and Establishment of Zones*. URL: http://198.238.192.104/nxt/gateway.dll?f=templates&fn=default.htm. Accessed on May 22, 2007.

Snohomish County. 2004. *Snohomish County Council Snohomish County, Washington. Amended Ordinance No. 04-074*. July 28, 2004. URL: http://www.co.snohomish.wa.us/documents/County_Services/focusonfarming/agordapproved072804.pdf. Accessed on May 21, 2007.

Snohomish County. 2006. *Draft Snohomish County Comprehensive Park and Recreation Plan.* August 9, 2006. URL: http://www.co.snohomish.wa.us/documents/Departments/Parks/Parks_Comp_Plan-2007.pdf. Accessed on May 23, 2007.

Snohomish County. 2007. *Comprehensive Plan: Capital Facilities Inventory*. Amended January 13, 2007. URL: http://www1.co.snohomish.wa.us/Departments/PDS/Divisions/LR_Planning/Projects_Programs/Comprehensive_Plan/GPP_Capitalfacilities.htm. Accessed on May 17, 2007.

U.S Census Bureau. 2007. *American Fact Finder.* URL: http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_2000_SF3_U&_lang=en&_ts=197907930386. Accessed on May 22, 2007.

U.S. Fish and Wildlife Service. 2006. *Classification of Wetlands and Deepwater Habitats of the United States*. URL: http://wetlandsfws.er.usgs.gov/NWI/download.html. Accessed on May 17, 2006.

Washington State Department of Ecology. 1993. *Washington State Wetlands Rating System-Western Washington*. August 1993. URL: http://www.ecy.wa.gov/pubs/93074.pdf. Accessed on May 23, 2007.

Washington State Department of Ecology. 2004. *Washington State Wetland Rating System for Western Washington-Revised.* August 2004. URL: http://www.ecy.wa.gov/pubs/0406025.pdf. Accessed on May 23, 2007.

Washington State Department of Ecology. 2007. *Hazardous Waste & Toxic Reduction Facility/Site Listings and Interaction Table.* Updated March 2007. URL: http://www.ecy.wa.gov/services/gis/data/enviro/interactions.htm. Accessed on June 6, 2007.

Appendix A: Environmental Constraints GIS Maps

The following set of GIS-produced maps includes information obtained by WSDOT for the environmental constraints review. This set of maps is presented in the order of each of the sections identified for this analysis, , and ordered from south to north: Section 1, 2, 3 and 4.

The first sheet in Appendix A is *Exhibit A - SR 9 Corridor and Vicinity Map*. This map shows the locations of each of the sections identified along the study corridor, and includes a vicinity map to provide a geographical context for the SR 9 study corridor area. Within each of the four sections, Appendix A includes maps that identify the following environmental elements:

- Surface Water Features
- National Wetlands Inventory Wetlands
- Groundwater Features
- Critical Slopes and Liquefaction Susceptibility
- Land Use
- Future Land Use
- Prime Farmland
- Public Facilities
- Environmental Justice
- Potentially Hazardous or Contaminated Sites

Maps for Vegetation and Wildlife and Cultural and Archaeological Resources are not included in Appendix A but are referenced in the report.

Section 1 Maps

Section 2 Maps

Section 3 Maps

Section 4 Maps

Appendix B: Snohomish County Utilities Maps

Utilities information for the project corridor was obtained from Capital Facilities Inventory maps found in Snohomish County's Comprehensive Plan. The following maps were used for review of the Public Utilities elements in the Environmental Constraints discussion, and are included for reference in Appendix B:

- Electric Power Facilities-Snohomish County 12/2005
- Public Water Systems Serving UGAs-Southwest Snohomish County 12/2005
- Public Water Systems Serving UGAs-Northwest Snohomish County 12/2005
- Public Water Systems Serving UGAs-Other Areas, Snohomish County 12/2005
- Public Waste Water Systems-Southwest Snohomish County 12/2005
- Public Waste Water Systems-Northwest Snohomish County 12/2005
- Public Waste Water Systems-Other Areas, Snohomish County 12/2005

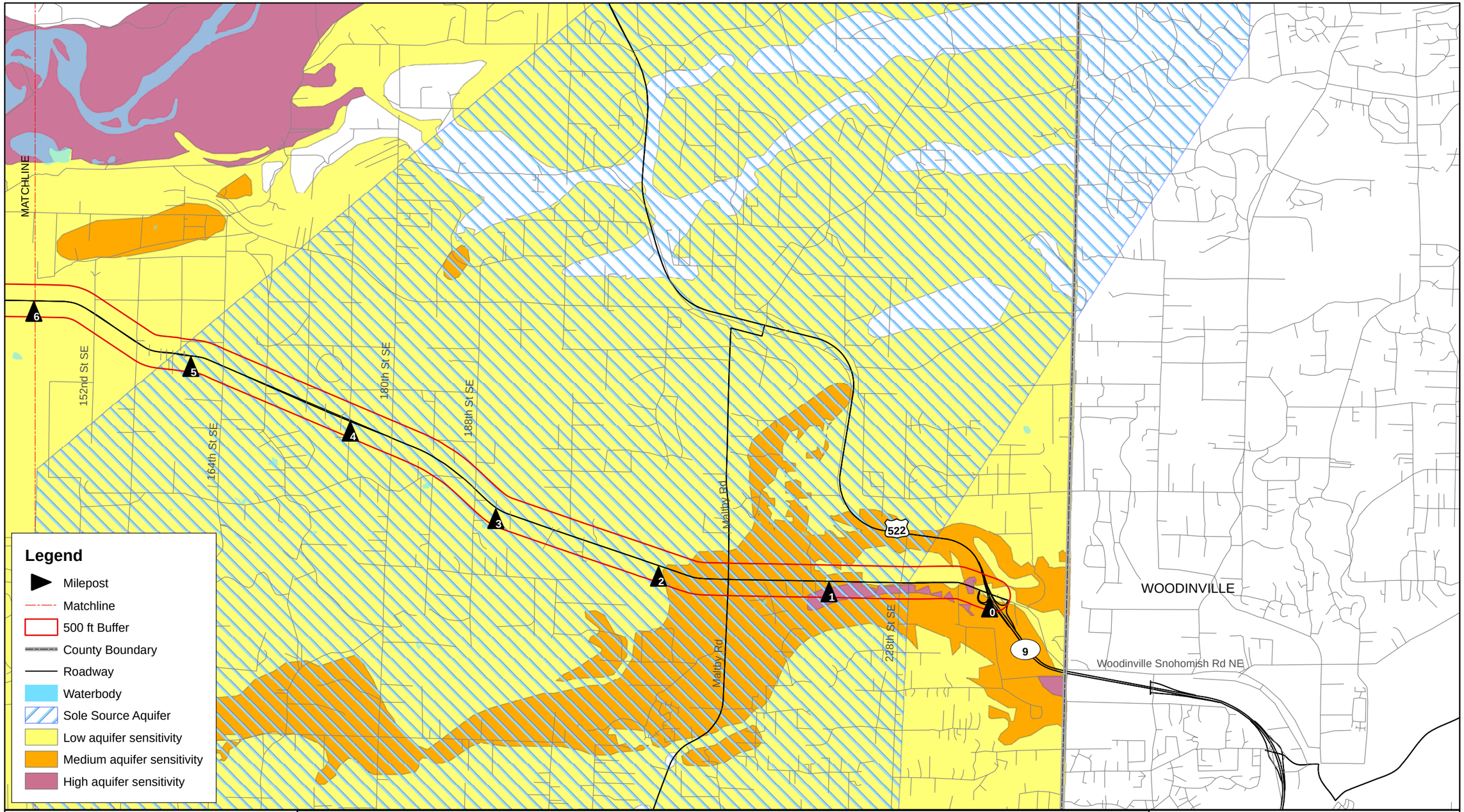

Exhibit 1-3
Groundwater Features

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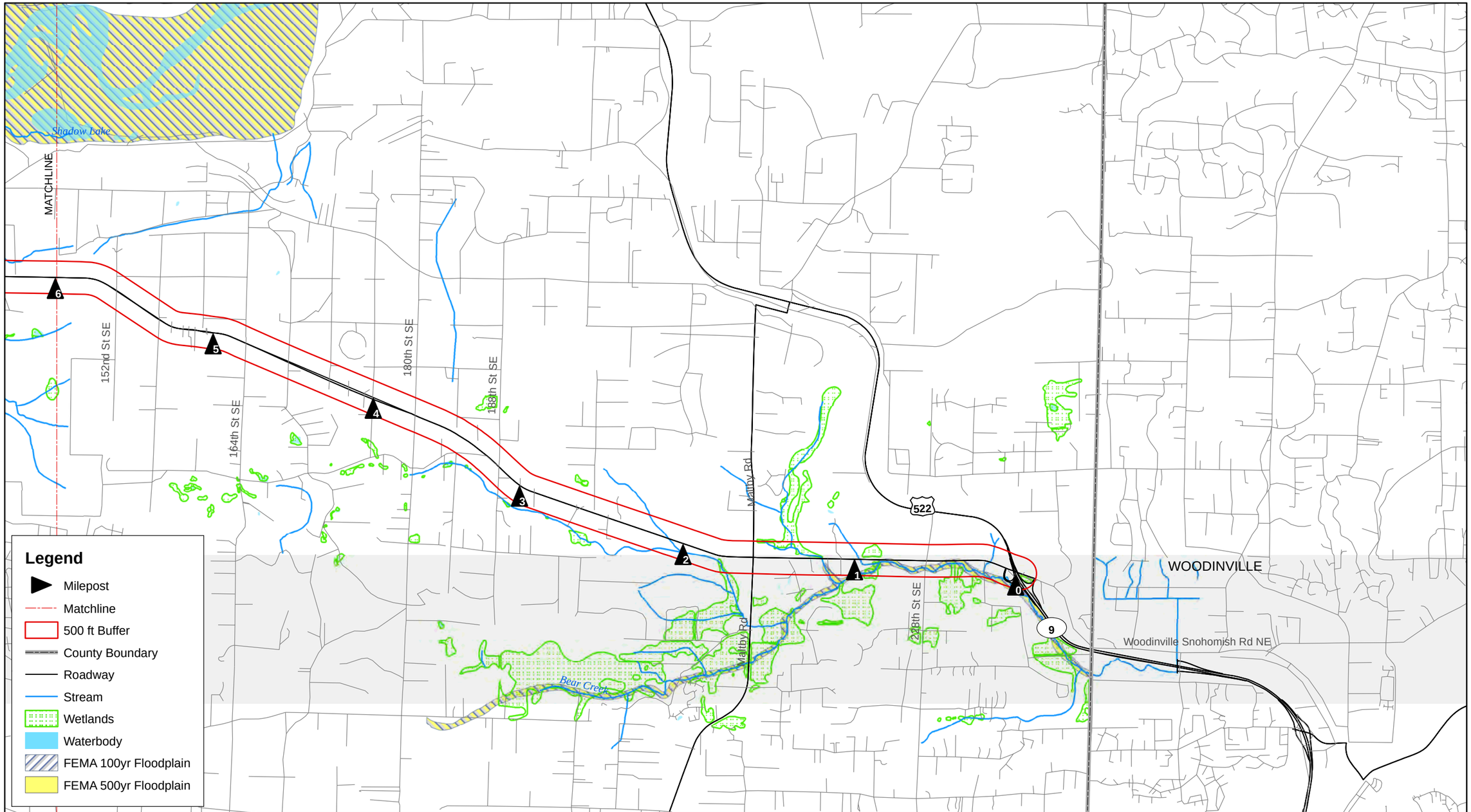
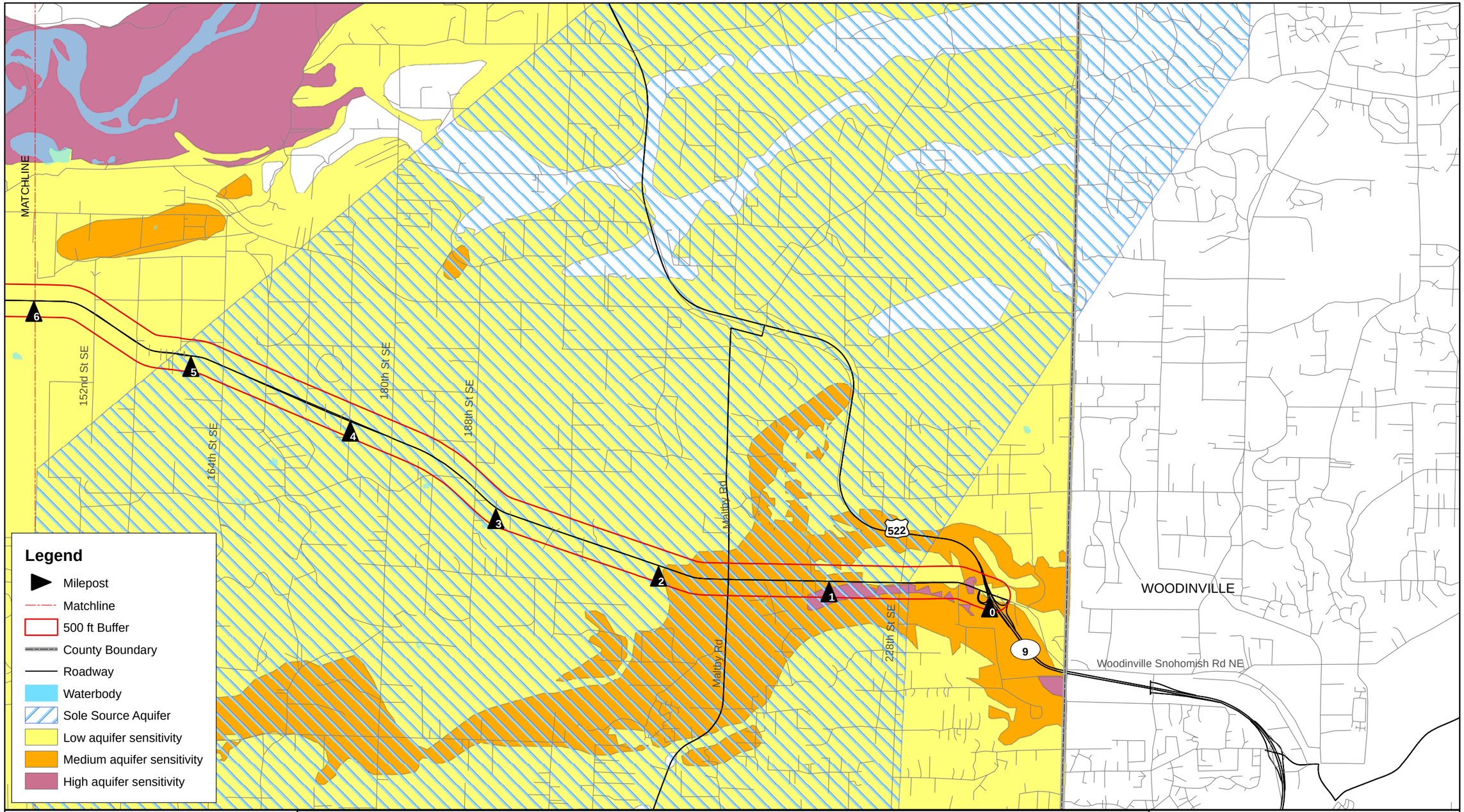


Exhibit 1-1
Surface Water Features



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Groundwater Features

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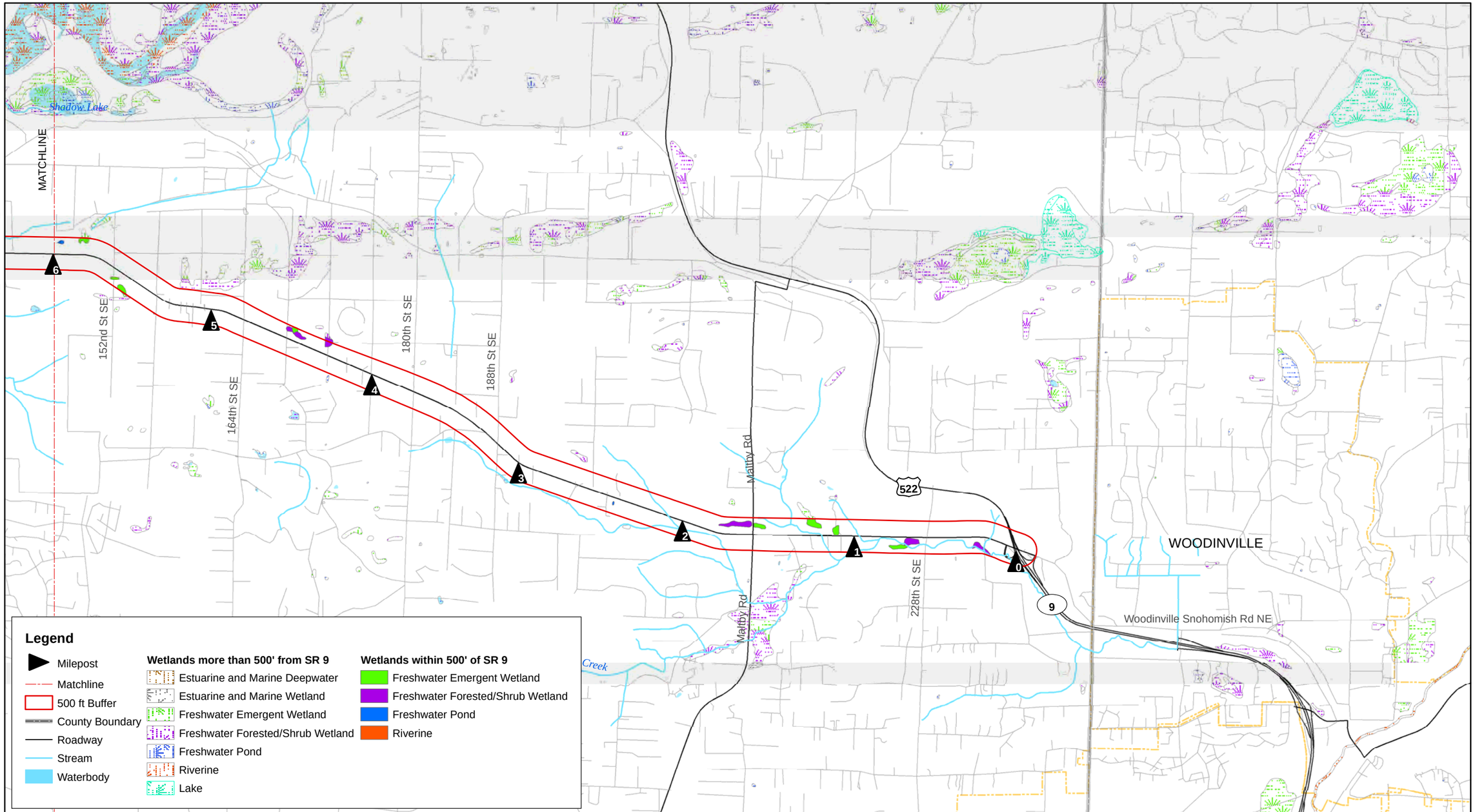

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Washington State Department of Transportation
SR 9 Route Development Plan

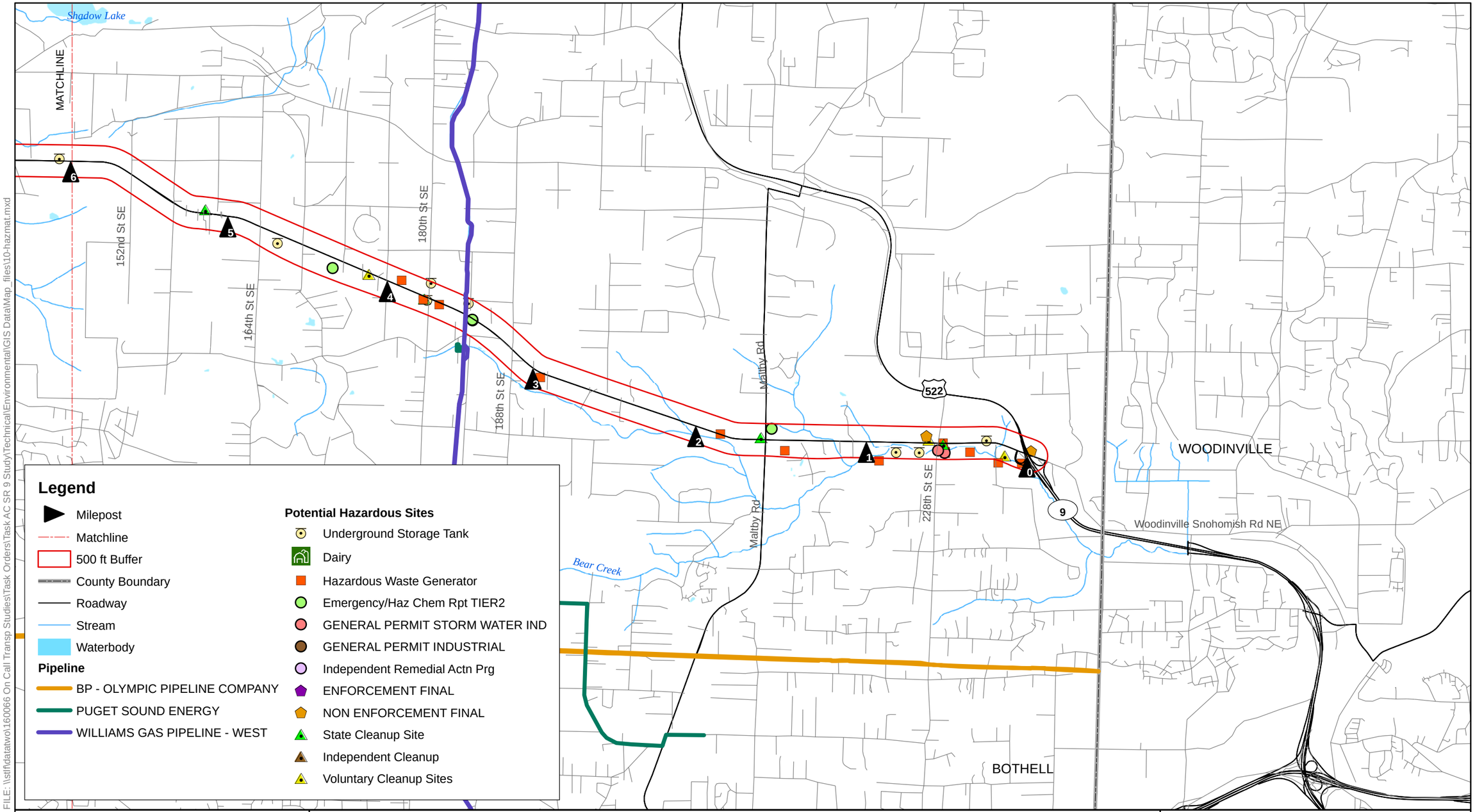
N E S W

0 1,500 3,000 6,000 Feet

Basemap Data Source: Snohomish County, WSDOT.

U.S. Fish and Wildlife Service, 200605, NWIDBA.CONUS_wet_poly:
Classification of Wetlands and Deepwater Habitats of the United States.
U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC.
FWS/OBS-79/31., U.S. Fish and Wildlife Service, Branch of Habitat Assessment, Washington, D.C.
http://wetlandsfws.er.usgs.gov/NWI/download.html

Exhibit 1-2
NWI Wetlands



SR 9 Route Development Plan

N E S W

0 1,500 3,000 6,000 Feet

Data Source: Snohomish County, WSDOT.

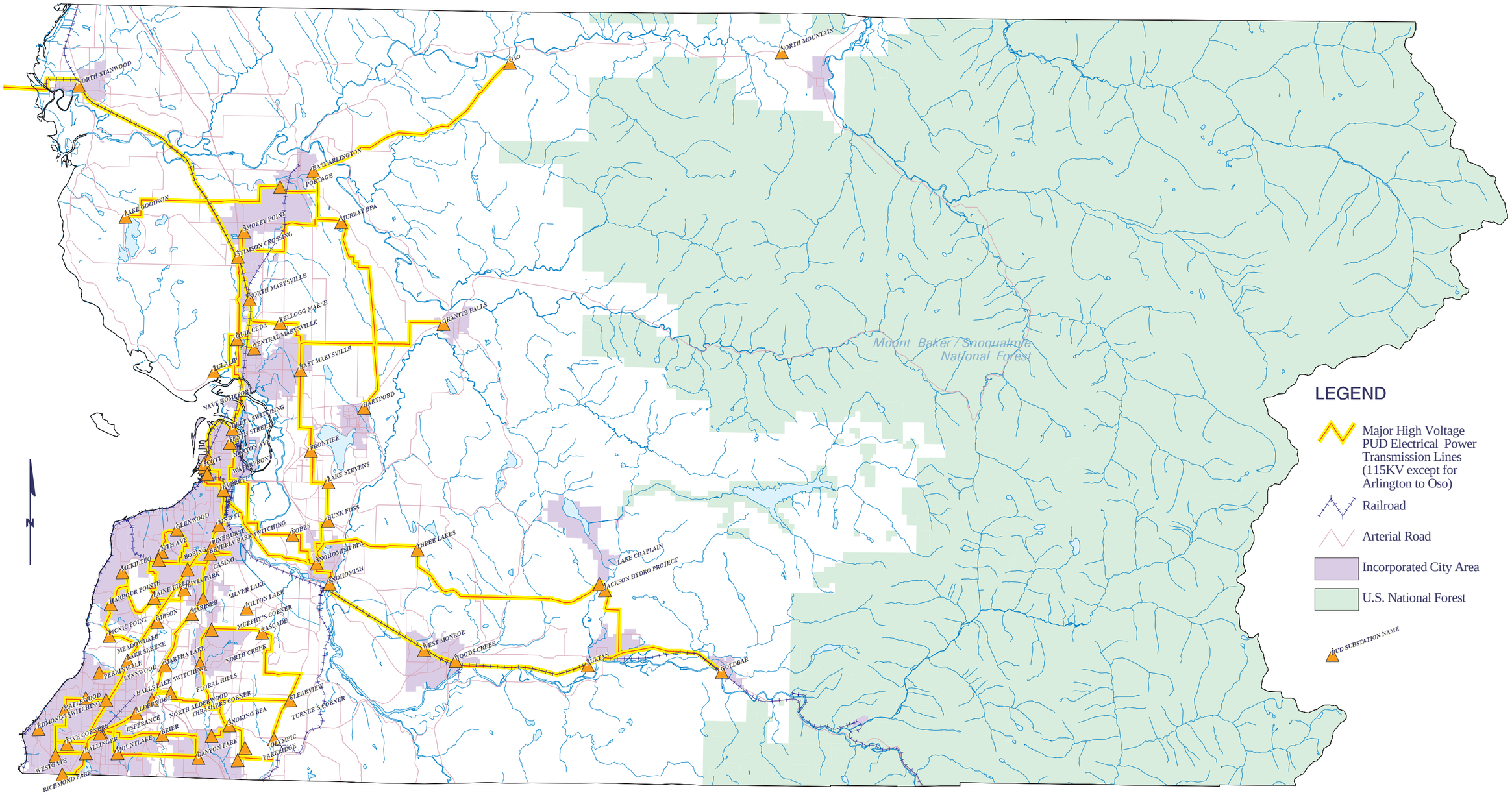
Exhibit 1-10
Potentially Hazardous or Contaminated Sites

Snohomish County

CAPITAL FACILITIES INVENTORY

Electric Power Facilities

SNOHOMISH COUNTY 12/2005



0 3 6 9

Scale in Miles

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Produced by Snohomish County Department of Planning and Development Services, Cartography/GIS Services, jla.

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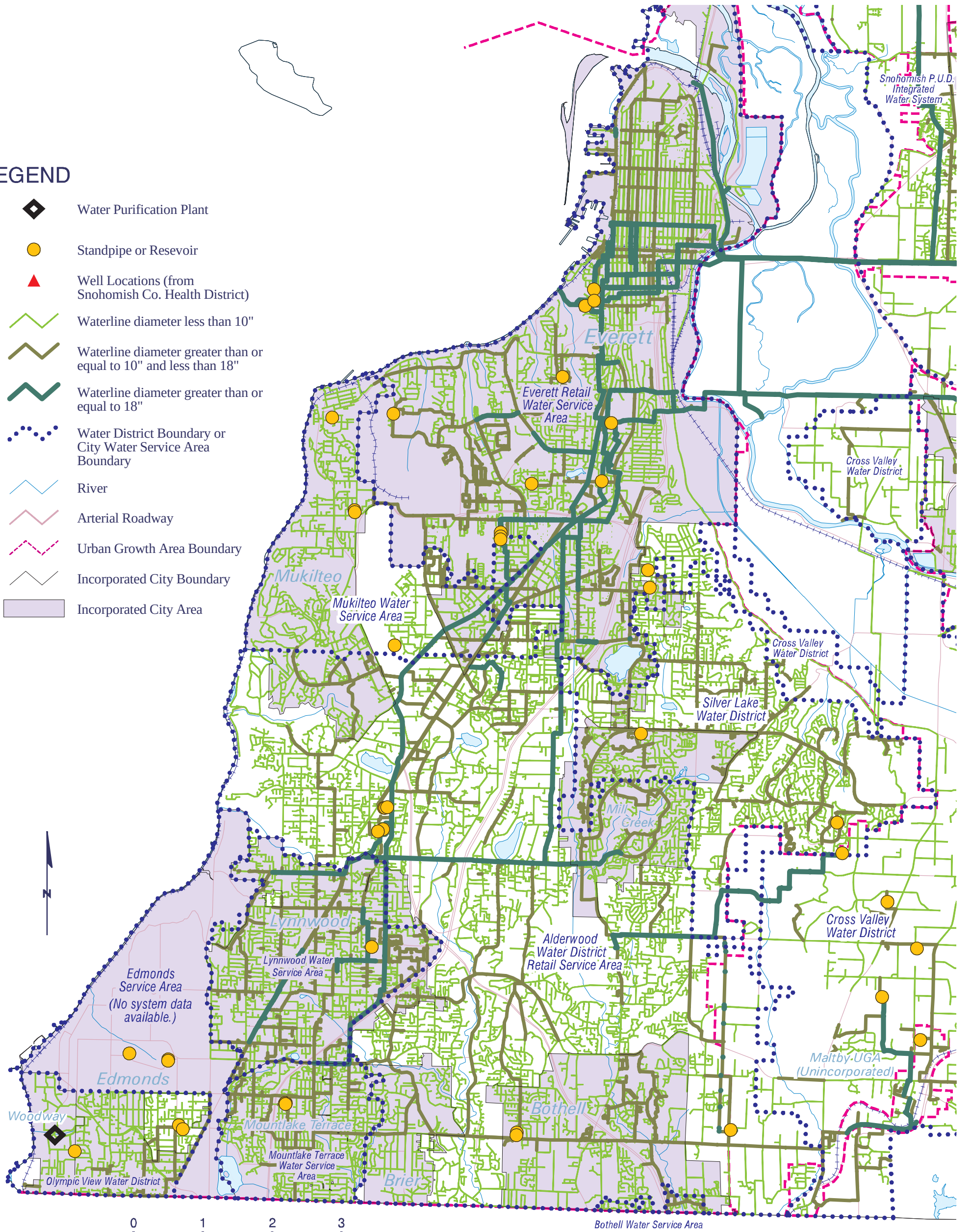
CAPITAL FACILITIES INVENTORY

Public Water Systems Serving UGAs

SOUTHWEST SNOHOMISH COUNTY 12/2005

Snohomish County



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Water service data was generated from plans submitted by the water purveyors ranging from 1994 thru 2003 and has not undergone quality assurances or checks. Water Systems not serving Urban Growth Areas have yet to be compiled.

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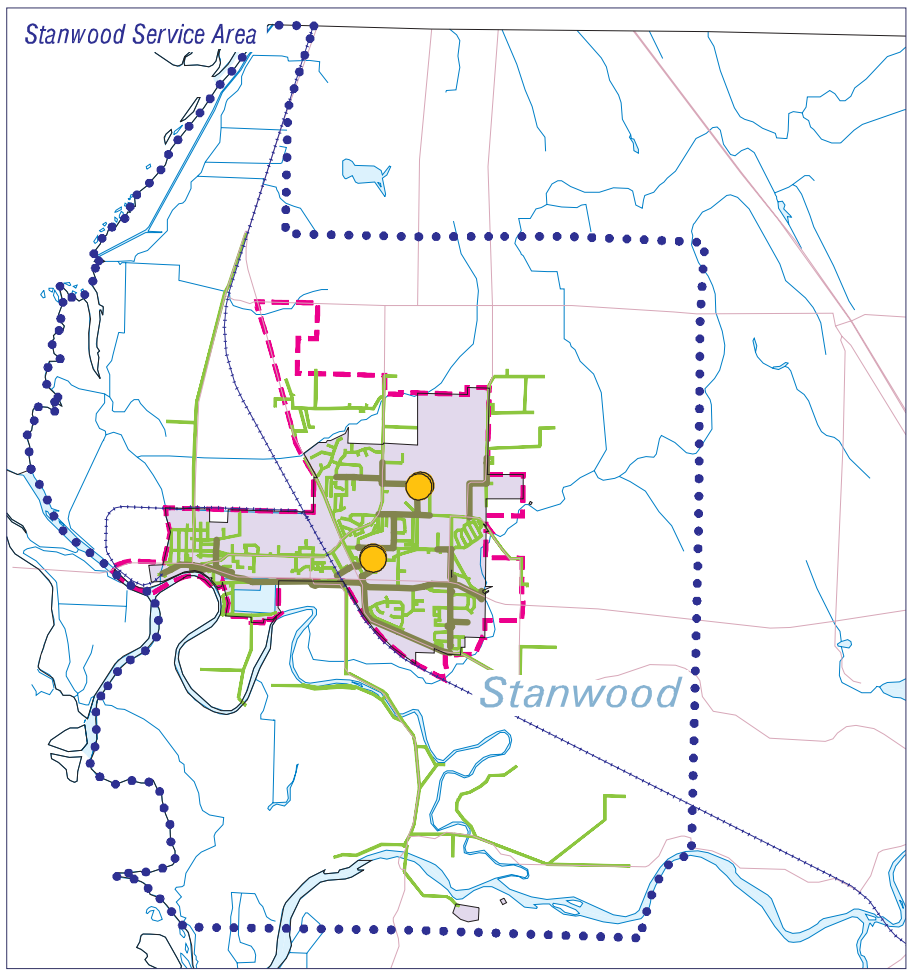
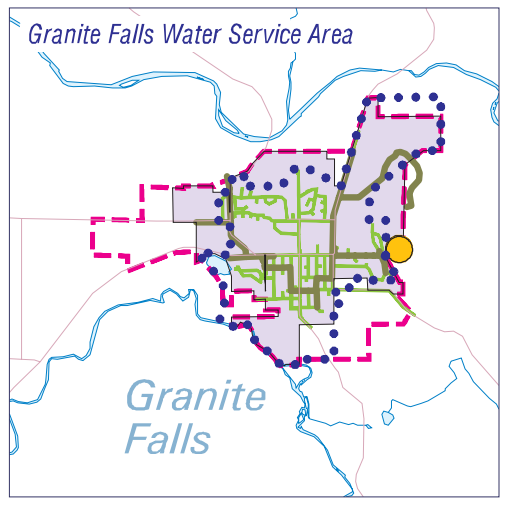
CAPITAL FACILITIES INVENTORY

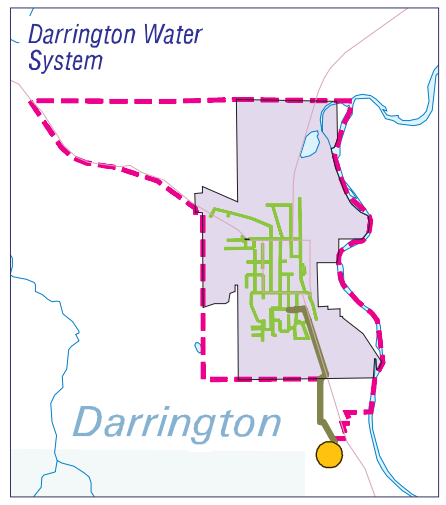
Public Water Systems Serving UGAs

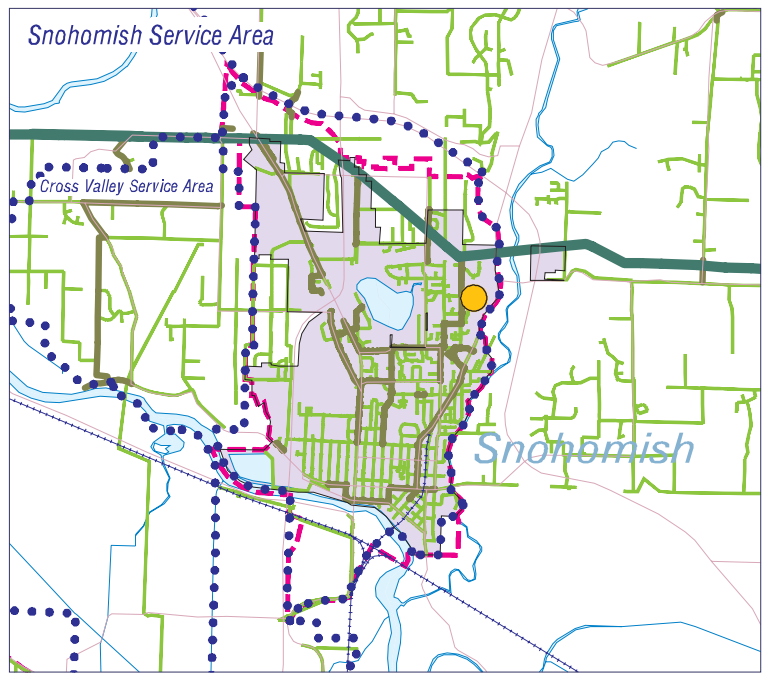
OTHER AREAS, SNOHOMISH COUNTY 12/2005

Snohomish County









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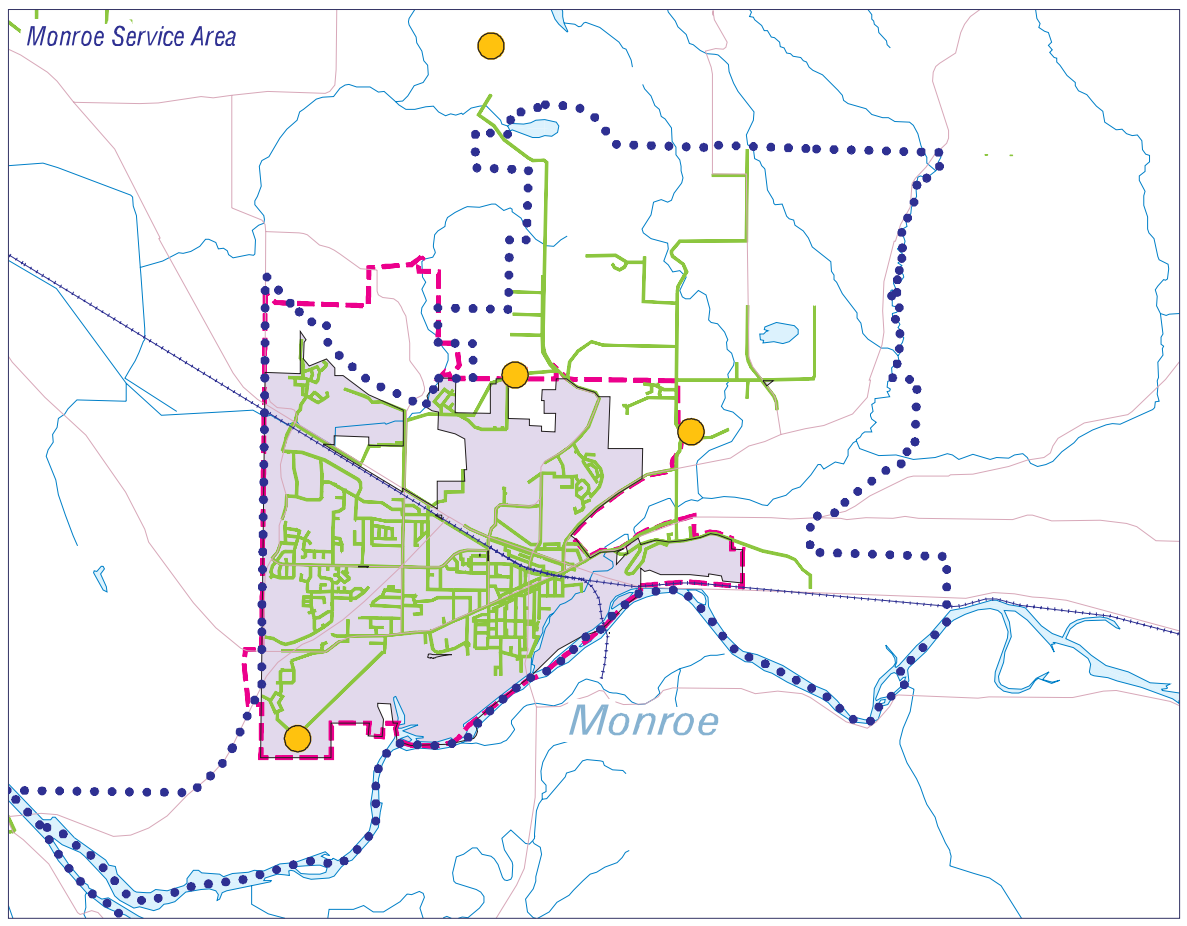
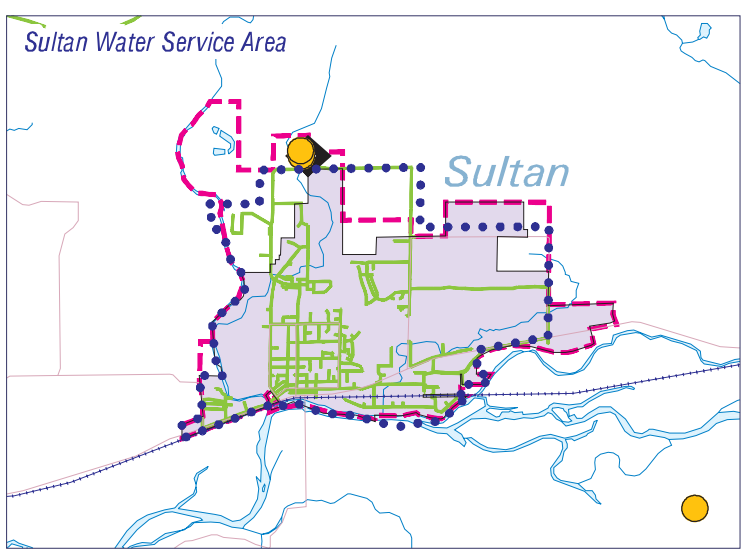
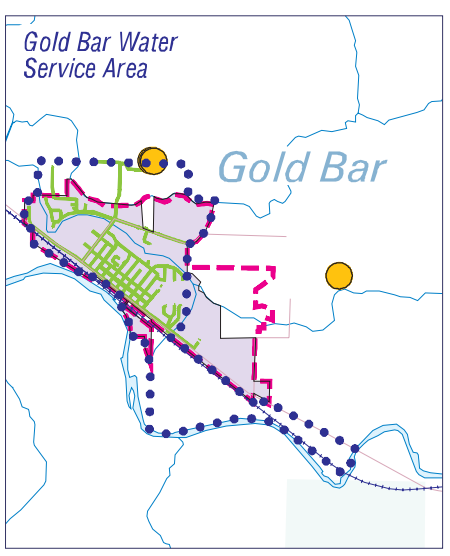


LEGEND

- Water Purification Plant
- Standpipe or Resevoir
- Well Locations (from Snohomish Co. Health District)
- Waterline diameter less than 10"
- Waterline diameter greater than or equal to 10" and less than 18"
- Waterline diameter greater than or equal to 18"
- Water District Boundary or City Water Service Area Boundary
- River
- Arterial Roadway
- Urban Growth Area Boundary
- Incorporated City Boundary
- Incorporated City Area





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Scale in Miles

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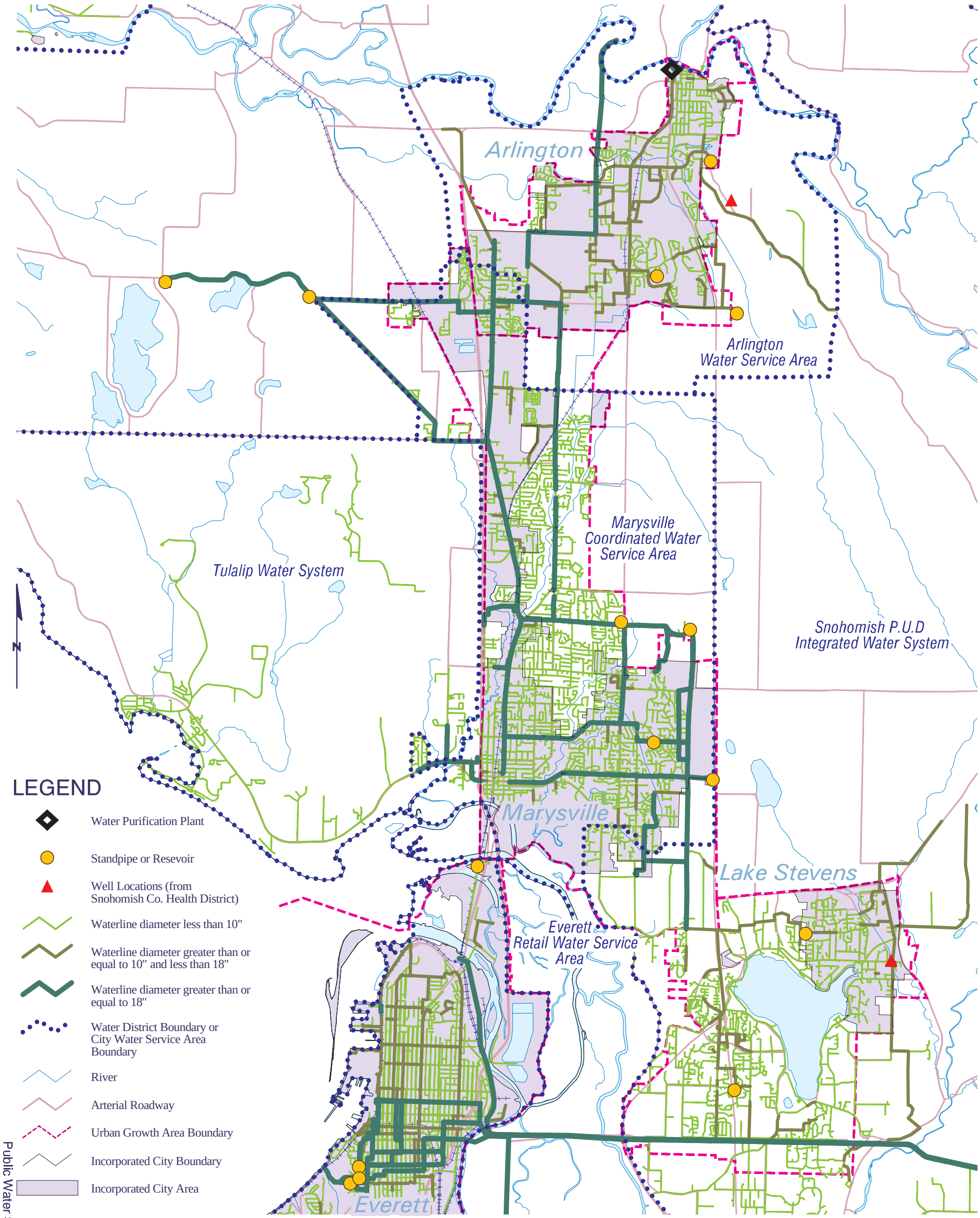
CAPITAL FACILITIES INVENTORY

Public Water Systems Serving UGAs

NORTHWEST SNOHOMISH COUNTY 12/2005

Snohomish County



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Scale in Miles

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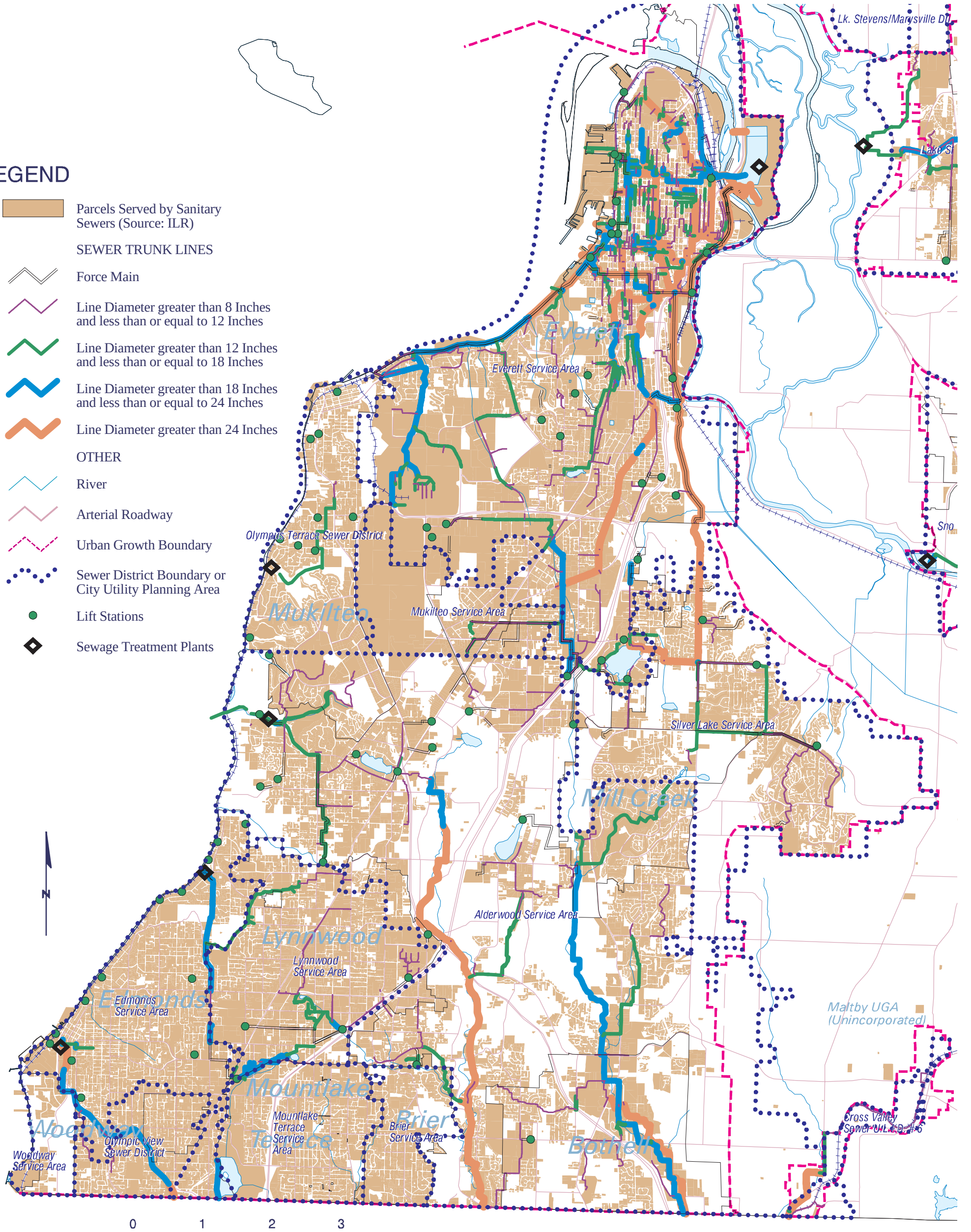
Public Water Systems Serving UGAs

CAPITAL FACILITIES INVENTORY

Public Waste Water Systems

SOUTHWEST SNOHOMISH COUNTY 12/2005

Snohomish County



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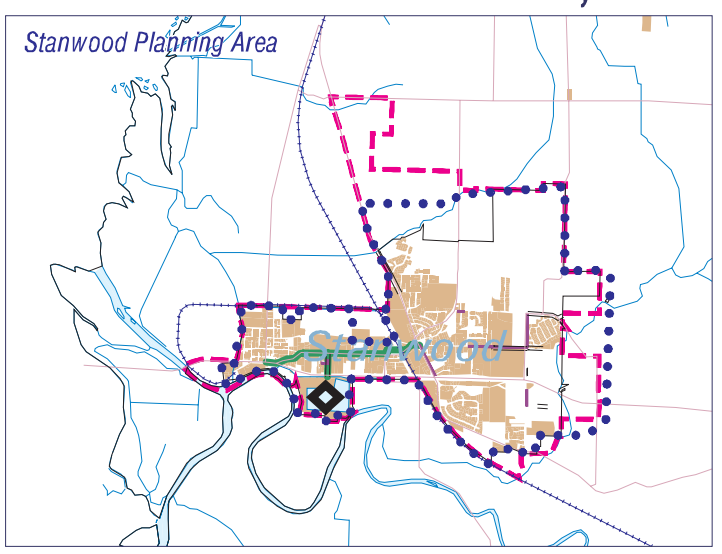
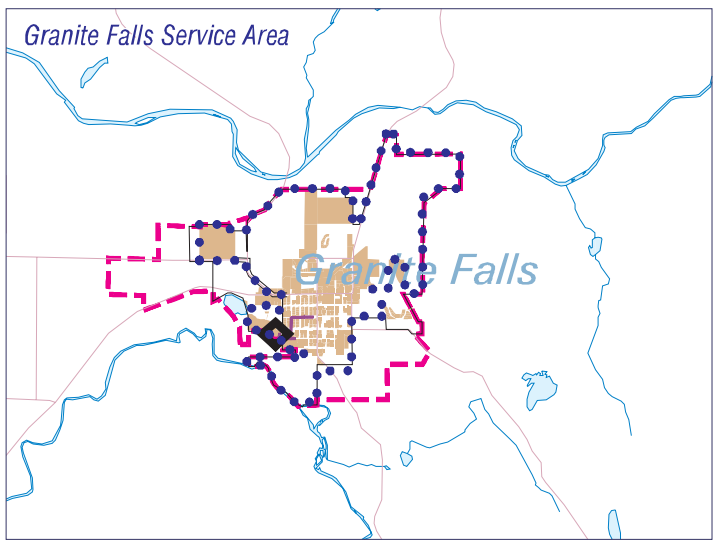
CAPITAL FACILITIES INVENTORY

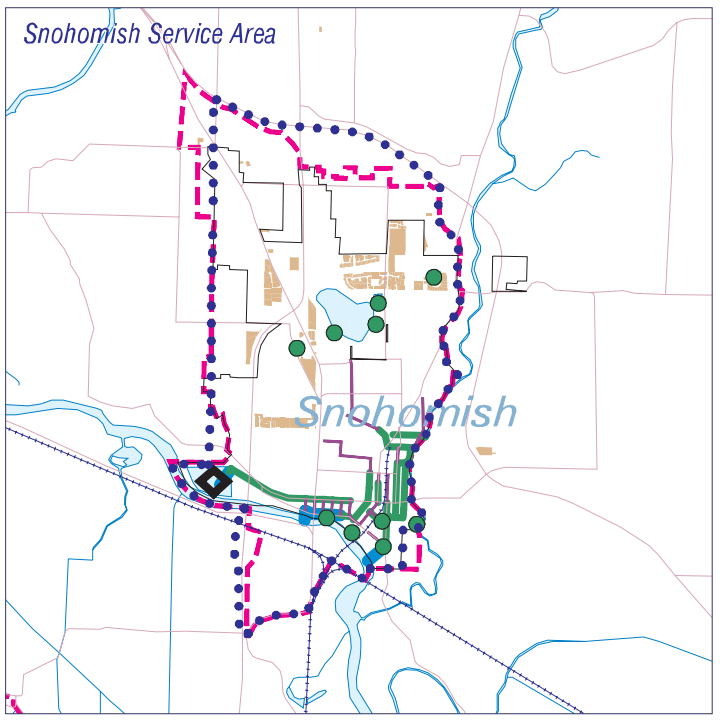
Public Waste Water Systems

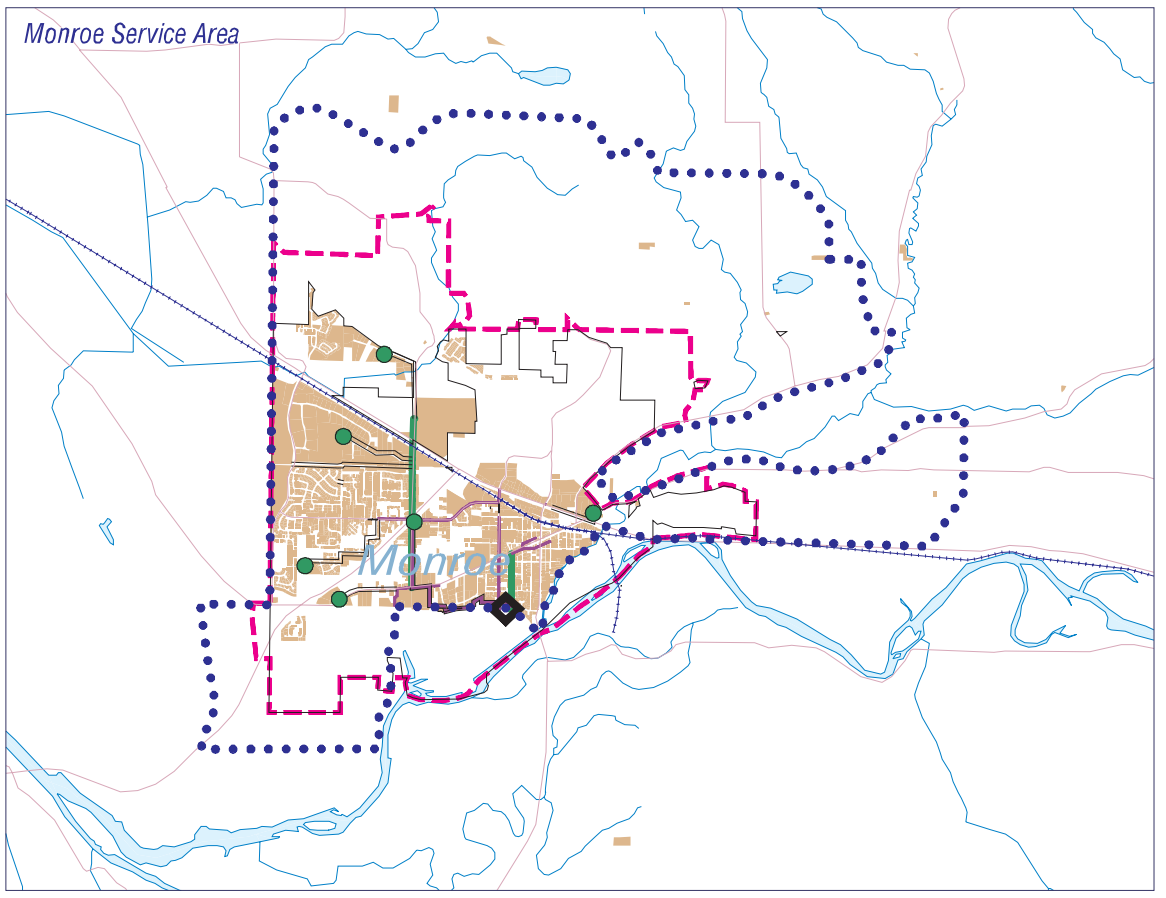
OTHER AREAS, SNOHOMISH COUNTY 12/2005

Snohomish County





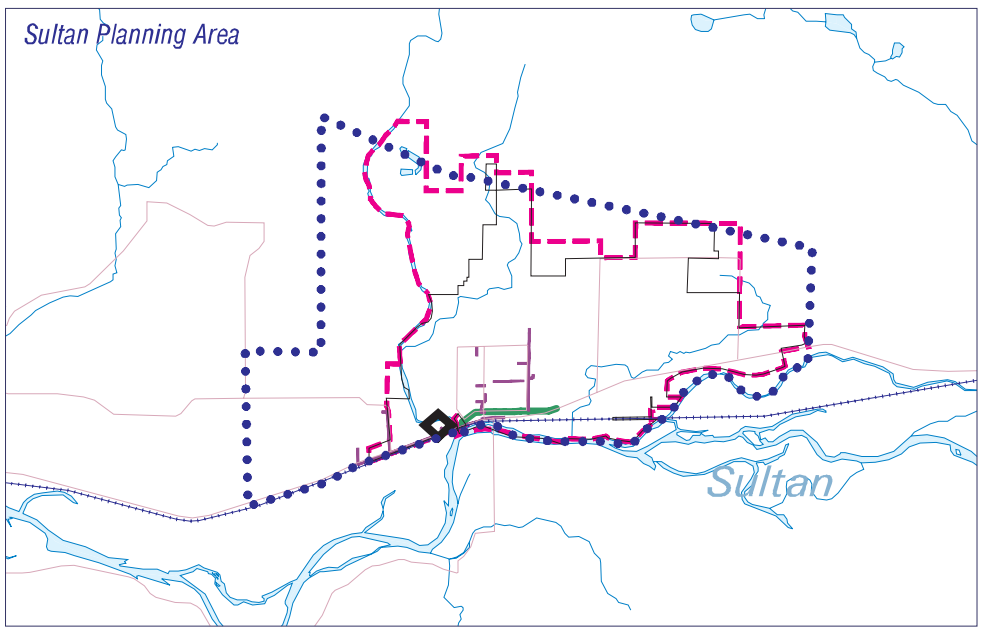




LEGEND

- Parcels Served by Sanitary Sewers (Source: ILR)
- SEWER TRUNK LINES
- Force Main
- Line Diameter greater than 8 Inches and less than or equal to 12 Inches
- Line Diameter greater than 12 Inches and less than or equal to 18 Inches
- Line Diameter greater than 18 Inches and less than or equal to 24 Inches
- Line Diameter greater than 24 Inches
- OTHER
- River
- Arterial Roadway
- Urban Growth Boundary
- Sewer District Boundary or City Utility Planning Area
- Lift Stations
- Sewage Treatment Plants

N



0 1 2 3

Scale in Miles

W:/plng/carto/cap04/sewothcfp.aml
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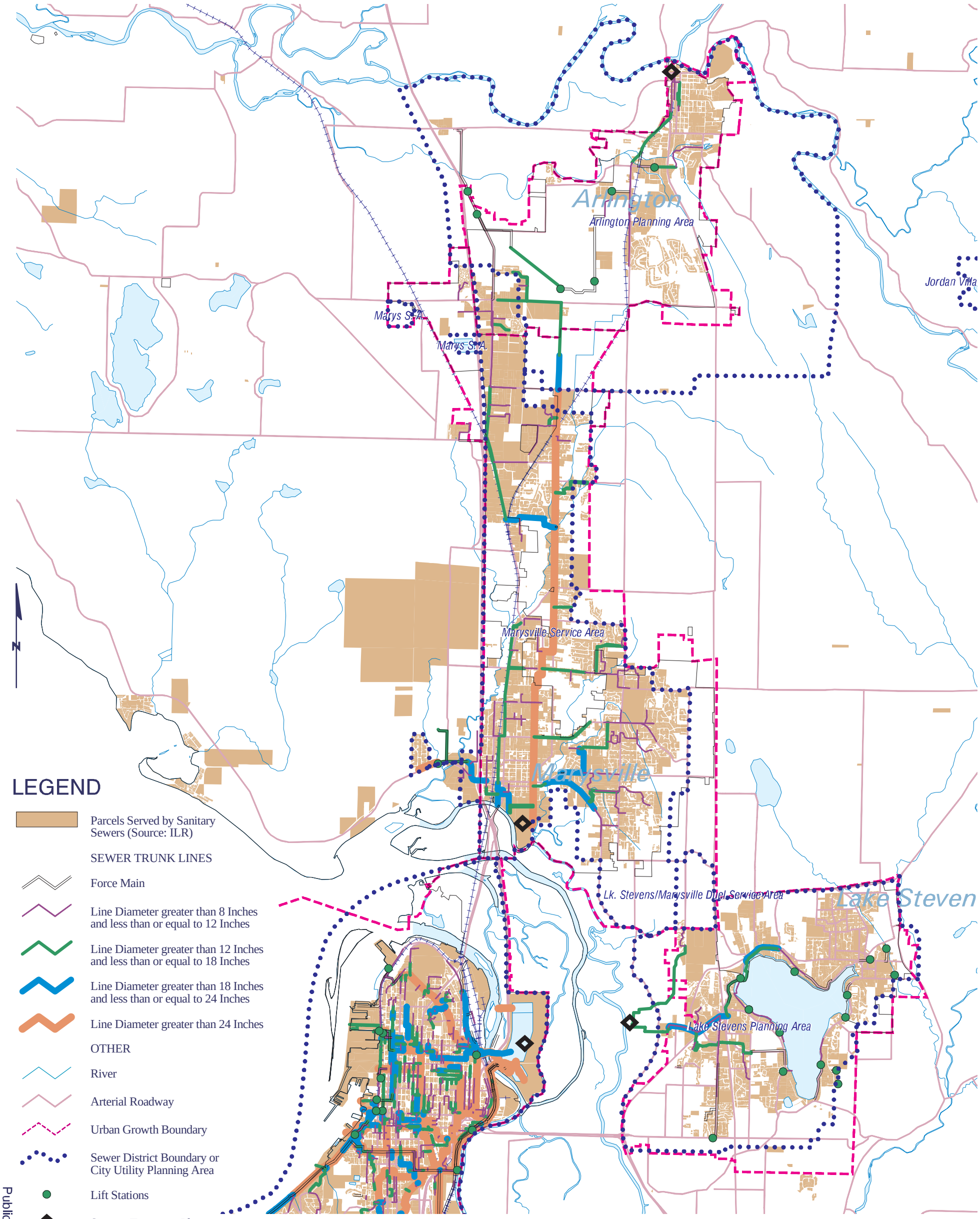
CAPITAL FACILITIES INVENTORY

Public Waste Water Systems

NORTHWEST SNOHOMISH COUNTY 12/2005

Snohomish County



LEGEND

- Parcels Served by Sanitary Sewers (Source: ILR)

SEWER TRUNK LINES

- Force Main
- Line Diameter greater than 8 Inches and less than or equal to 12 Inches
- Line Diameter greater than 12 Inches and less than or equal to 18 Inches
- Line Diameter greater than 18 Inches and less than or equal to 24 Inches
- Line Diameter greater than 24 Inches

OTHER

- River
- Arterial Roadway
- Urban Growth Boundary
- Sewer District Boundary or City Utility Planning Area
- Lift Stations
- Sewage Treatment Plants

0 1 2 3

Scale in Miles

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