
TO: Patrick Sorensen, General Manager
Bill Hunter, PE, Assistant Manager / District Engineer

FROM: Melanie Mankamy, PE

SUBJECT: Northshore System Extension Preliminary Investigation

JOB NO.: 2015-053

DATE: November 19, 2015

Earlier this year the District Board requested additional information regarding the properties along the north shore of Lake Whatcom that have been developed with on-site septic systems, and a review of the parameters that need to be addressed if the District decides to pursue a sewer system extension to this area.

Wilson Engineering was tasked with conducting this research. The purpose of this Memorandum is to document the results of the research and present candidate “next step” actions.

In the District’s approved 2014 Comprehensive Sewer Plan, a potential future sewer basin was identified at the east end of North Shore Road (Exhibit J-4). This area was included in the sewer capacity analyses for North Shore. This area is not currently designated as an Urban Growth Area (UGA) or Limited Area of More Intense Rural Development (LAMIRD), though the majority of the existing lots are much smaller than 5 acres - a typical definition for “rural”.

The Growth Management Act (GMA) limits the extension of sewers into rural areas. RCW 36.70A.110(4) provides in part:

In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development.

As discussed in Bob Carmichael’s Memorandum to the Board, dated March 31, 2015, there are two potential courses of action to lawfully extend sewer to the area at the end of Northshore Road - designation of the area as a LAMIRD by Whatcom County or Conditional Use Permit Approval for the extension by Whatcom County showing it is necessary to protect public health and safety and the environment. The March 31, 2015 Memorandum provides substantial background on the process and requirements associated with both of these options and is attached.

We met with County Planning Department representatives to discuss their potential position/reaction to both of these paths. They were understanding of the goal, but were concerned about having sufficient back-up information to go down either path. They suggested additional research into the status of existing septic systems, failure rates, and drinking water sources from the public health side, and age of the developments for the LAMIRD option.

One of the key criteria in establishing a LAMIRD is showing that the land was characterized by existing development more intensive than the surrounding rural areas as of July 1, 1990. Using data from the Whatcom County Assessor’s office, we have determined that there are 97 residential units in this area. Of

those, 54 were built before 1990 (20 of these before 1960), and 44 were built in 1990 or later. Five are listed as being built in 1990 but there is insufficient information to determine if they were there prior to July 1, 1990. This data is shown on the attached figure, color-coded by construction date. Also shown are the 28 vacant parcels that potentially could be developed and the one development that is currently underway. We removed parcels from the vacant category if they shared ownership with adjacent developed parcels and were too small to be developed separately, or if they had public ownership or were restricted (shown on the figure as “exclusions”).

We also obtained the septic system records that were available from the Whatcom County Health Department’s website and entered relevant data into a database. This data indicates that all but two of the 96 septic systems have been inspected since 2009, with 55 having been inspected since January 2013. The records also included a 1974 permit for an outdoor toilet for a cabin. The last conventional gravity system was installed in 2004. The table below provides the number of each of the types of septic systems installed in this area. A full list of the septic systems and their inspection data is attached.

OSS TYPE	Number installed
CONVENTIONAL GRAVITY	33
PUMP TO GRAVITY DISTRIBUTION	28
BIOFILTER	11
PRESSURE DISTRIBUTION	10
AEROBIC TREATMENT UNIT w/ PRESSURE DISTRIBUTION	5
SAND FILTER w/ MOUND	2
MOUND	2
AEROBIC TREATMENT UNIT w/ DRIP IRRIGATION	2
NON-PRESSURIZED MOUND	1
DRIP IRRIGATION	1
OUTDOOR TOILET/PRIVY	1
UNIDENTIFIED	1

The majority of the inspections were performed by professionals (71), with only 20 systems being inspected by the homeowner (the remaining were new and inspected by the County during installation). Twenty of the inspection records indicated that “maintenance was needed”, - eight needed the septic tank pumped and eleven needed minor work like sealing the risers. Only one needed major work for a failed pump.

Twenty-eight of the septic systems appear to be located on the lake side of Northshore Road. Five of the residences were built after 1990, and six of the older septic systems have been replaced. There are several septic systems in this area that are quite old, including two installed in 1935 and one dating back to 1908, that do not appear to have been replaced or upgraded.

We estimate that about 22 septic systems have been replaced - the permit application date is much newer than the year the building was built. Most of the replacements were for residences built before 1980 - and included the septic system for 1901 house which was replaced in 2014. From the data, it is hard to tell which replacements are due to failing systems and those required for remodels.

We were able to identify the drinking water source for 69 of the properties. Seventeen appear to draw water from Lake Whatcom, and 50 use well water. Two properties were listed as being on a community or association water system, though we expect this number to be higher and possibly include those with unidentified water sources. We were not able to find information on the drinking water source for 28 of the properties.

In conclusion, the data provided by the Health Department records does not provide sufficient evidence to support potential claims of septic system failures that could justify a “health and safety and the environment” case. Nor will the level of pre-1990 existing development at just over half of the total development be sufficiently compelling alone to justify the creation of a LAMIRD, in part because it will be seen as “enabling” the development of the 28 vacant parcels.

We do believe that there is a high probability that the County would support a sewer extension with data that these septic systems were impacting the water quality in the lake. We recommend that the District pursue a rigorous water quality testing program to collect data that would show such an impact. With that data, and the results listed in this memo, the District would be able to make the compelling argument for extending sewer to this area, regardless of the approach.



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MEMORANDUM

TO: Board of Commissioners – Lake Whatcom Water & Sewer District
FROM: Robert A. Carmichael
DATE: March 31, 2015
SUBJECT: Potential for Northshore Sewer Extension

I. BACKGROUND

There may be interest on the Board of Commissioners in exploring the possibility of Lake Whatcom Water and Sewer District (“District”) extending its sewer system to serve approximately 80-100 homes at the end of Northshore Road along Lake Whatcom, all of which are presently served by on-site septic systems. Preliminary investigation by legal counsel and staff resulted in a verbal report to the Board at its first meeting in March and a Board request for a follow up memorandum. This memo is meant to comply with that request. It is preliminary in nature and intended to identify potential courses of action in case the District Board chooses to become proactive on this issue. Significant issues associated with how to pay for the potential sewer extension, and the U.L.I.D. process, are not part of the memo.

II. POTENTIAL COURSES OF ACTION

There are two potential legal paths to lawfully extending sewer to the 80-100 homes at the end of Northshore Road:

- (1) Designation by Whatcom County of the area as a Limited Area of More Intense Rural Development (“LAMIRD”); or
- (2) Conditional Use Permit Approval for the extension.

The principal purpose of this memorandum is to outline the applicable laws and steps necessary under each potential legal path. Analysis of the potential for success requires development of factual information to determine if the necessary legal criteria will likely be met. Such work is beyond the scope of this memorandum.

Before discussing each option in turn, limitations on sewer extensions arising from the Growth Management Act (Chapter 36.70A RCW or “GMA”) should be briefly examined.

III. LIMITATIONS ON SEWER EXTENSIONS IN GMA

The GMA limits the extension of sewers into rural areas. RCW 36.70A.110(4) provides in part:

In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development.

RCW 36.70A.110(4). The foregoing provision has been generally interpreted to preclude extension of sewers outside of designated Urban Growth Areas (“UGAs”) unless the extension is demonstrated as necessary to protect public health and safety. *Thurston County v. Cooper Point Association, et al.*, 148 Wn. 2d 1, 17-18, 57 P. 3rd 1156 (2002). Therefore, one path available for extending sewers to the end of Northshore Road is to factually demonstrate that such extension is necessary to protect public health and safety. This will likely require either evidence of failing septic systems, or evidence that septic systems pose inherent health and safety risks when located along the shores of an impaired water body which supplies municipal drinking water.

Sewers may also be extended to serve limited areas of more intense rural development (“LAMIRDs”) as a permitted use under certain circumstances. WCC 20.82.030(4). Public services and public facilities like sewers are allowed in LAMIRDs so long as they are provided “in a manner that does not permit low-density sprawl.” RCW 36.70A.070(5)(d)(iv). A sewer extension serving a LAMIRD as a permitted use must also be consistent with an approved sewer comprehensive plan and the County Comprehensive Plan. LAMIRDs are designated by the County in its Comprehensive Plan and referred to therein as Rural Communities. Strict statutory criteria and County Comprehensive Plan criteria must be satisfied for an area to qualify for LAMIRD designation.

The 80-100 homes at the end of Northshore Road along Lake Whatcom presently served by septic systems are located in a rural area with Rural 5 Acre (“R-5A”) zoning. Therefore, the two potential legal pathways for extending sewer services to serve these homes is: (1) have the area designated as a LAMIRD; or (2) obtain a Conditional Use Permit showing that the extension is necessary to protect public health and safety and the environment.

IV. TEXT AMENDMENT NECESSARY TO COUNTY COMPREHENSIVE PLAN

Current County Comprehensive Plan **Policy 2T-2** is unnecessarily restrictive on the extension of sewers and if not amended could result in denial of a conditional use permit for a sewer extension even when necessary to protect the public health and safety and environment. This same current policy is also inconsistent with allowing sewers in a LAMIRD, despite other language in the County Comprehensive Plan and Zoning Code authorizing sewers in LAMIRDs.

Current **Policy 2T-2** categorically prohibits sewers outside a Short Term Planning Area. Under current **Goal 2T** of the County Comprehensive Plan, Short Term Planning Areas are to be established, outside of which urban levels of development will not occur. WCCP **Goal 2T**. Short Term Planning Areas are overlay designations within UGAs. The first bullet point under current **Policy 2T-2** states: “No sewer shall be extended outside a Short Term Planning Area.” Of course, the potential area for a Northshore sewer extension is not located in a Short Term Planning Area or even in a UGA. Therefore, unless current **Policy 2T-2** is changed, no Northshore sewer extension is possible under the current County Comprehensive Plan.

The restriction on sewers in current **Policy 2T-2** makes no allowance for sewer extensions when necessary to protect the public health and safety and the environment, as allowed by RCW 36.70A.110(4) and Whatcom County Comprehensive Plan **Policies 2EE-4, 5T-1, and 5T-2**. The current restriction is also inconsistent with allowing sewer extensions in LAMIRDs as otherwise authorized by the County Zoning Code (WCC 20.82.030(4)) and County Comprehensive Plan **Policies 2EE-4, 5T-1, 5T-2, and 5T-3**. Due to these inconsistencies with GMA and with other provisions in the County’s own Zoning Code and Comprehensive Plan, a strong case can be made for amendment of current **Policy 2T-2** to eliminate the current categorical prohibition on extending sewers outside of Short Term Planning Areas.

Important Recent Development: Fortunately, a very timely County process is underway right now before the Planning Commission to amend most of current **Goal 2T** and **Policy 2T**, including striking the portion of **Policy 2T-2** which currently prohibits sewer extensions outside Short Term Planning Areas. This is a byproduct of the County eliminating the distinction between Short Term and Long Term Planning Areas within UGAs, so it is part of a much bigger proposed change in the County Comprehensive Plan. If the proposed text amendments to the County Comprehensive Plan before the Planning Commission are ultimately adopted by the Council, which is very likely, then there will be no need for the Lake Whatcom Water & Sewer District to propose a text amendment to the County Comprehensive Plan **Policy 2T-2** prior to pursuing the two legal pathways discussed below.¹ The balance of this memorandum is written under the assumption that the prohibition on sewer extensions outside Short Term Planning Areas under current **Policy 2T-2** will soon be eliminated.

V. PATH 1: ESTABLISH A LAMIRD TO ACCOMMODATE NORTHSORE SEWER EXTENSION

Sewer extensions in residential LAMIRDs which are in conformance with a state approved sewer comprehensive plan and consistent with the Whatcom County Comprehensive Plan are “permitted outright” under the County Zoning Code. WCC 20.82.030(4). A Comprehensive Plan

¹ It is still possible and perhaps desirable for additional County Comprehensive Plan text amendments more specific to the problem of septic systems along Lake Whatcom to express a policy level desire to eliminate septic systems along the Lake. If the District decides to move forward, additional thought may be given to proposing potential new County Comprehensive Plan policies specifically directed at protecting Lake Whatcom water quality from impairment from septic systems. But this is not necessary to pursue the two potential paths outlined herein.

amendment for a LAMIRD designation must be filed with the County. Such applications are due on or before December 31st for consideration in the following year. WCC 2.160.040(C). So, for consideration in 2016, an application must be filed on or before December 31, 2015. Then in the following year, the County Council will decide if it chooses to “docket” the application for processing. It is not required to do so. But if the County Council believes a proposed LAMIRD should be considered, it will be approved for processing. Thereafter, it will be reviewed by the Planning Department which will perform SEPA review, prepare a staff report, and schedule the matter for a public hearing before the County Planning Commission. The Planning Commission will make a recommendation on the application to the County Council and the County Council will make a final decision. The County Council may or may not have its own public hearing on the application. Given that the County is working toward meeting a June 2016 deadline for its Comprehensive Plan update, it is likely that consideration of a new LAMIRD would not take place until the latter half of 2016 at the earliest.

To prepare the application for a residential LAMIRD designation, the proposed boundaries must be carefully drawn with LAMIRD criteria in mind. The criteria that must be satisfied for a residential LAMIRD designation is set forth in RCW 36.70A.070(5)(d)(iv) and (v). The statutory criteria provides:

(iv) A county shall adopt measures to minimize and contain the existing areas or uses of more intensive rural development, as appropriate, authorized under this subsection. Lands included in such existing areas or uses shall not extend beyond the logical outer boundary of the existing area or use, thereby allowing a new pattern of low-density sprawl. Existing areas are those that are clearly identifiable and contained and where there is a logical boundary delineated predominately by the built environment, but that may also include undeveloped lands if limited as provided in this subsection. The county shall establish the logical outer boundary of an area of more intensive rural development. In establishing the logical outer boundary, the county shall address (A) the need to preserve the character of existing natural neighborhoods and communities, (B) physical boundaries, such as bodies of water, streets and highways, and land forms and contours, (C) the prevention of abnormally irregular boundaries, and (D) the ability to provide public facilities and public services in a manner that does not permit low-density sprawl;

(v) For purposes of (d) of this subsection, an existing area or existing use is one that was in existence:

(A) On July 1, 1990, in a county that was initially required to plan under all of the provisions of this chapter;

RCW 36.70A.070(5)(d)(iv) and (v). Following the state statute, the County also has LAMIRD designation criteria. County Comprehensive Plan **Policy 2HH-1**. Key mandatory criteria for land considered for Rural Community LAMIRD designation under the County Comprehensive Plan are:

- That the land was characterized by existing development more intensive than surrounding rural areas as of July 1, 1990; and
- That the land is not currently designated by the Comprehensive Plan as UGA or Resource Lands.

County Comprehensive Plan **Policy 2HH-1.A**.

The County Comprehensive Plan also contains the following additional locational criteria to consider for evaluation in combination, all of which need not apply.

- The existing (1990) residential built environment was more intensively developed than surrounding areas;
- Public services are available to serve potential infill, such as adequate potable water and fire protection, transportation facilities, sewage disposal and stormwater control;
- The area is planned for more intensive development in a post-GMA plan;
- Existing zoning prior to LAMIRD designation, except zoning may not be a sole basis for designation.

County Comprehensive Plan **Policy 2HH-1.B**.

If an area satisfies the above LAMIRD criteria in **Policy 2HH-1.A** and generally conforms to one or more of the criteria in **Policy 2HH-1.B** above, then the outer boundary criteria set forth in **Policy 2HH-1.C** will be used to determine the boundaries. The outer boundary “must minimize and contain areas of intensive development and be delineated predominately by the built environment” and shall include:

- Areas that were intensively developed and characterized by the built environment (including water lines and other utility lines with capacity to serve areas of more intensive uses) on July 1, 1990;
- Areas that on July 1, 1990, were not intensively developed may be included within Rural Community boundaries if they meet any of the following conditions:
 - Including area helps preserve character of existing built neighborhood
 - Including area allows the logical outer boundary to follow a physical boundary such as bodies of water, streets and highways, and land forms and contours
 - Including the area prevents logical outer boundary from being abnormally irregular
 - Including the area is consistent with efficient provision of public facilities and services in a manner that does not permit low-density sprawl

- Including area does not create a new pattern of low-density sprawl.

County Comprehensive Plan **Policy 2HH-1.C**

Based on the foregoing, support for a LAMIRD designation for the Northshore area requires identifying the existing built environment as of 1990 and determining a logical outer boundary per the above criteria. Assessor's office records and aerial photographs may be used. Limiting connection to sewer to assure it does not promote sprawl will likely be required with any LAMIRD.

Appeals: An appeal of a LAMIRD designation by the County Council is made to the Growth Management Hearings Board. Any appeal from a Growth Management Hearings Board decision is made to Superior Court. From there to Court of Appeals Division 1 in Seattle. And discretionary review is possible from there by the State Supreme Court.

VI. PATH 2: OBTAIN CONDITIONAL USE PERMIT

New sewer extensions outside a UGA and LAMIRD are authorized in WCC 20.82.030(4) by conditional use permit. WCC 20.82.030(4) provides in part that "Sewer lines shall not be extended to serve lots in rural areas unless such extensions are shown to be necessary to protect basic public health and safety and the environment, and when such services are financially supportable at rural densities and do not permit urban development." Therefore, to make the case for a sewer extension at Northshore Road the District must produce evidence showing that the above standards are met.

In addition, the general conditional use permit criteria of the County must also be satisfied. WCC 20.84.220. One particular criteria is that the proposal "(1) Will be harmonious and in accordance with the general and specific objectives of Whatcom County's Comprehensive Plan and zoning regulations." WCC 20.84.220(1). It is to meet this criteria that **Policy 2T-2** must be amended to remove the categorical prohibition on sewers outside Short Term Planning Areas. But based on the Comprehensive Plan text amendments currently being considered by the Planning Commission, it is highly likely that this prohibition on sewers in **Policy 2T-2** will be removed in the near future.

Obtaining a conditional use permit requires filing a conditional use permit application with Whatcom County, County SEPA review, production of a staff report, and a public hearing before the County Hearing Examiner. The application can be filed at any time that the District believes it has the evidence at hand to make its case. If all criteria are met, the Hearing Examiner must grant approval. Usually conditions are attached to any approval.

To obtain a Northshore sewer extension conditional use permit, it will be vital to produce evidence that pollution from existing septic systems is reaching the Lake or at least that existing septic systems at their present locations and numbers generate a significant risk of producing a

public health problem. *Thurston County v. Cooper Point Association, et al.*, 148 Wn. 2d 1, 17-18. Supporting testimony from Department of Ecology would be extremely helpful, as would other expert testimony. Conditions on any approval will likely also require restrictions on connection to the sewer by new subdivisions, but it is premature to speculate on the nature of the restriction likely required.

In the event a preponderance of the evidence before the Hearing Examiner demonstrates that the specific and general criteria for a conditional use permit are met, the Hearing Examiner may grant approval and the extension may be completed.

Appeals: Appeals of a conditional use permit approval or denial are heard on the record by the County Council. Any appeal of the decision of the County Council is by Land Use Petition Act ("LUPA") Petition, filed under Chapter RCW 36.70C., directly to Superior Court, again on the record. Appeals from Superior Court go to the Court of Appeals, Division 1 in Seattle. Any review from there is to the State Supreme Court.

VII. POTENTIAL NEXT STEPS IN PROCESS (no set order)

1. Feasibility review to determine evidence needed to support each path/strength of case.
2. Feasibility review to determine how to pay for extension.
3. Meet with elected officials from County and City to gauge level of potential support.
4. Meet with staff from County, City, and Department of Ecology to discuss best path forward.
5. Work with County staff on bringing proposal forward.

NORTHSHORE ROAD OSS DATA

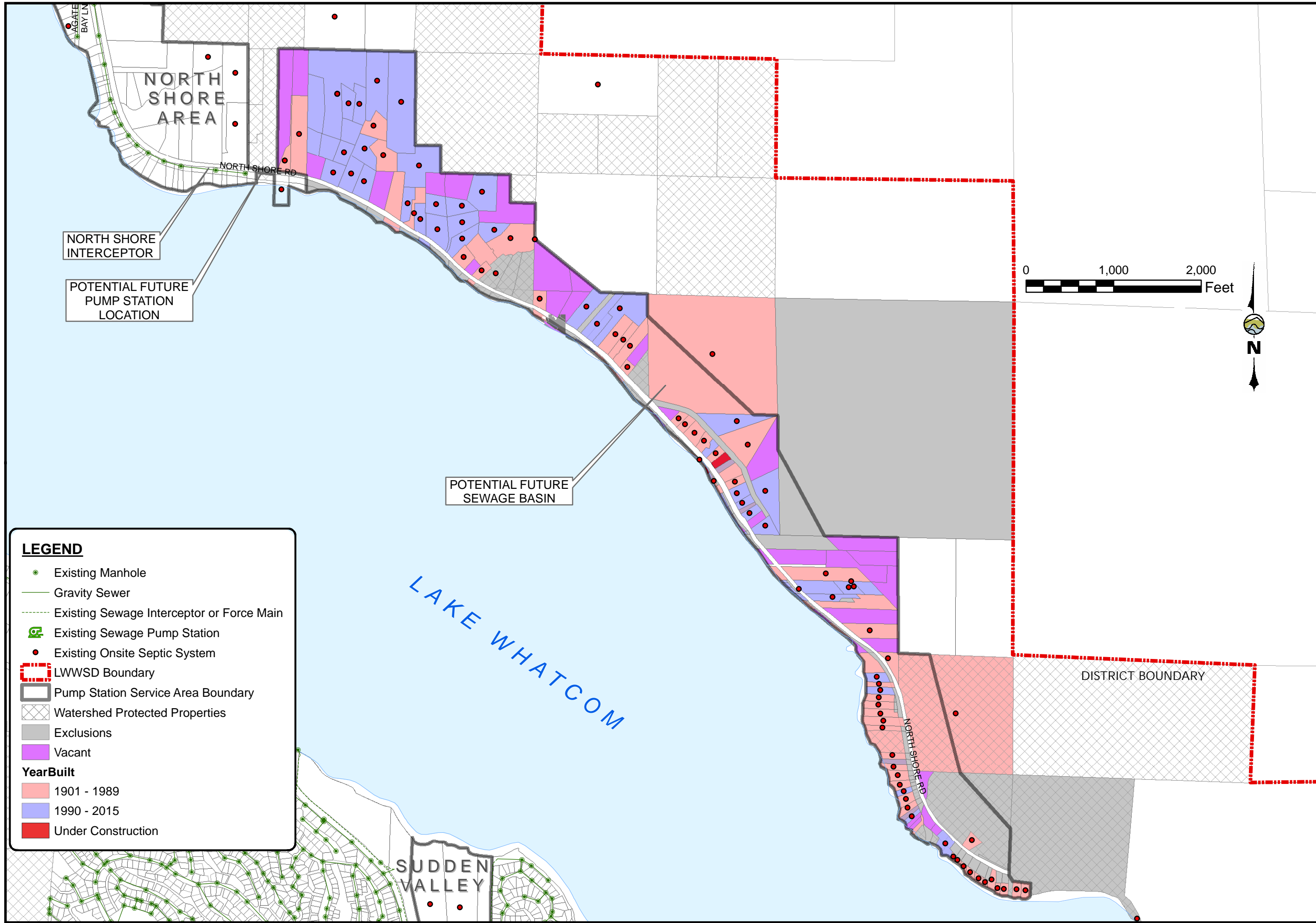
prop_id	geo_id	YearBuilt	INSTALL DATE	PERMIT		OSS TYPE	INSP TYPE	OSS STATUS	WATER SOURCE	DISTANCE TO LAKE
				SUBMITTAL DATE	INSPECTION DATE					
28972	370405461512	1979								
83865	380430507018	1901	7/11/2014	6/4/2014	7/11/2014	ATU-PD	NEW		Lake	130
84069	380432409074	1908			2/28/2013	CG	ROSS	MN-Pump		130
84001	380432220473	1914		6/9/1987	4/15/2014	CG	ROSS	Satisfactory		
83860	380430501040	1920		7/13/2004	7/12/2012	CG	HROSS	Satisfactory	Well	
83967	380432101474	1929		6/29/1972	6/25/2014	CG	ROSS	Satisfactory	Lake	
84053	380432398124	1930		9/17/1984	6/5/2012	P-GD	ROSS	MN-Minor	Well	
29003	370405540448	1934		8/4/1998	5/3/2012	P-GD	ROSS	MN-Minor		
29006	370405548451	1934		8/29/2012	9/17/2014	PD	ROSS	Satisfactory		
28991	370405507471	1935			4/10/2014	CG	ROSS	Satisfactory		
28998	370405523493	1935			6/30/2014	CG	ROSS	MN-Pump		
83964	380432095482	1936	4/26/2007	2/22/2007	5/21/2014	BIO	ROSS	Satisfactory		145
173194	380432166425	1945	10/26/2009	5/18/2007	12/6/2011	PD	ROSS	Satisfactory	Well	125
28960	370405450530	1946		5/15/1997	10/1/2011	CG	HROSS	Satisfactory	Well	220
83939	380432007557	1946		6/25/1969	11/16/2011	CG	HROSS	Satisfactory	Lake	
83843	380430486030	1949	6/15/2009	10/17/1997	7/17/2014	PD	HROSS	Satisfactory		
84071	380432412058	1949		7/17/1996	4/23/2014	P-GD	ROSS	Satisfactory	Lake	80
84092	380432510075	1949			4/21/2014	PD	ROSS	Satisfactory		
28953	370405438554	1950		6/5/2012	9/26/2012	ATU-PD	ROSS	Satisfactory	Lake	115
28957	370405447538	1950			6/2/2014	CG	ROSS	Satisfactory		
83968	380432108466	1954			8/28/2013	CG	ROSS	MN-Pump		
28426	370404011364	1961			12/29/2011	P-GD	ROSS	MN-Major		100
84077	380432426006	1961		3/30/1989	4/9/2014	PD	ROSS	Satisfactory		130
29001	370405534456	1962			6/21/2014	CG	HROSS	Satisfactory		
83807	380430428098	1962	12/21/2004	5/10/1996	7/5/2012	P-GD	ROSS	Satisfactory	Well	
84060	380432406049	1962			5/22/2014	CG	HROSS	Satisfactory		
28427	370404022361	1967			5/3/2012	CG	ROSS	MN-Minor		80
175503	380432336222	1968	9/6/2002	8/8/2002	4/14/2014	ATU-DI	ROSS	Satisfactory	Lake	
29008	370405556447	1968			12/14/2011	CG	ROSS	Satisfactory		
84009	380432233326	1971		11/22/2002	5/10/2012	CG	ROSS	MN-Pump	Lake	200
84073	380432421019	1971			6/24/2010	P-GD	ROSS	Satisfactory		40
83986	380432183411	1972	6/26/2006	4/24/2006	6/10/2014	ATU-PD	ROSS	Satisfactory	Lake	
83991	380432195367	1972			6/20/2014	CG	ROSS	Satisfactory		
84057	380432402159	1973		5/26/1972	4/15/2012	CG	HROSS	Satisfactory	Lake	150

NORTHSHORE ROAD OSS DATA

			PERMIT				OSS	WATER	DISTANCE	
prop_id	geo_id	YearBuilt	INSTALL DATE	SUBMITTAL DATE	INSPECTION DATE	OSS TYPE	INSP TYPE	STATUS	SOURCE	TO LAKE
28988	370405503478	1974			5/4/2015	CG	HROSS	Satisfactory		
83792	380430406096	1974							Lake	
29011	370405562448	1976			3/20/2002	P-GD	ROSS	Satisfactory		
83877	380430540056	1976	7/20/1976	7/30/1974	9/22/2014	CG	ROSS	MN-Minor	Well	
28951	370405436563	1977			5/12/2011	P-GD	ROSS	Satisfactory	Lake	145
83678	380430233143	1977	11/15/2007		3/4/2014	CG	ROSS	Satisfactory	Well	100
83687	380430248170	1977	6/11/2009	9/8/2008	5/22/2012	BIO	ROSS	Satisfactory	Well	300
84064	380432408082	1977			1/10/1977	CG	ROSS	Satisfactory	Lake	100
83970	380432110450	1978								
84061	380432406098	1978			7/11/1964	CG	ROSS	Satisfactory	Lake	100
28994	370405513468	1981								
28997	370405520463	1981								
83998	380432211356	1981			1/14/2005	BIO	ROSS	Satisfactory	Well	
84016	380432248410	1981	7/21/1981	6/5/1979	10/13/2011	CG	HROSS	Satisfactory	Well	200
173192	380432172419	1983	4/16/2009	9/17/2008	5/19/2014	PD	HROSS	Satisfactory	Lake	100
83787	380430377173	1983	6/8/1999	1/6/1998	6/2/2012	CG	HROSS	Satisfactory	Well	
83770	380430342139	1985			5/16/1991	P-GD	ROSS	MN-Pump	Well	
84068	380432409067	1985			3/22/1979	P-GD	ROSS	Satisfactory	Lake	100
84006	380432227335	1986			3/5/1986	CG	ROSS	MN-Minor	Community	
84048	380432382192	1987			4/20/1995	CG	ROSS	MN-Pump	Well	
173191	380430436073	1990			8/15/1988	CG	ROSS	Satisfactory		
83704	380430308156	1990			11/15/1989	P-GD	ROSS	MN-Minor	Well	
83749	380430309198	1990			1/19/1989	P-GD	ROSS	MN-Minor	Well	
83768	380430340230	1990			6/11/1990	M	ROSS	Satisfactory		
84055	380432401107	1990			10/16/1988	PD	HROSS	Satisfactory	Lake	
83763	380430330125	1992			5/29/1992	P-GD	ROSS	MN-Minor	Community	
83764	380430330126	1992			6/19/1990	P-GD	ROSS	Satisfactory	Well	
83775	380430347173	1992			10/6/1988	P-GD	ROSS	MN-Minor	Well	
83756	380430324153	1993	2/22/2006	7/13/1994	8/20/2013	P-GD	ROSS	MN-Pump	Well	
84035	380432341206	1993			2/2/1981	P-GD	HROSS	Satisfactory	Well	
83778	380430358195	1994			6/28/1990	P-GD	HROSS	Satisfactory		
83809	380430430140	1994	7/6/1986	11/19/1993	1/27/2012	NP-M	ROSS	MN-Pump	Well	
84018	380432255292	1996	3/3/2011	5/1/2006	5/17/2013	SF-M	ROSS	Satisfactory	Well	100
28955	370405443546	1997			5/10/1996	P-GD	HROSS	Satisfactory	Well	90

NORTHSHORE ROAD OSS DATA

			PERMIT				OSS	WATER	DISTANCE	
prop_id	geo_id	YearBuilt	INSTALL DATE	SUBMITTAL DATE	INSPECTION DATE	OSS TYPE	INSP TYPE	STATUS	SOURCE	TO LAKE
84025	380432270345	1997			8/5/1996	10/11/2010	CG	ROSS	Satisfactory Well	100
83785	380430367112	1999			9/30/1998	12/20/2013	P-GD	ROSS	Satisfactory Well	
83755	380430320150	2001			9/30/1998	2/6/2010	P-GD	ROSS	MN-Minor Well	500
84013	380432242336	2001			9/23/1996	1/10/2015	P-GD	HROSS	Satisfactory Well	150
83774	380430346202	2002			3/20/2002	6/19/2014	M	ROSS	Satisfactory Well	
83789	380430379225	2002			1/6/1998	11/30/2011	CG	HROSS	Satisfactory Well	
83823	380430450060	2002	11/2/2001		2/9/2005	3/19/2012	P-GD	HROSS	Satisfactory Well	
84024	380432269277	2002			4/27/2001	4/20/2015	BIO	ROSS	Satisfactory Well	180
83776	380430349121	2004			10/27/2003	8/28/2010	CG	ROSS	Satisfactory Well	400
83793	380430409203	2004			12/6/1988	6/30/2014	P-GD	ROSS	Satisfactory Well	
83953	380432060521	2004			10/8/1969	5/24/2010	CG	ROSS	Satisfactory Well	
84051	380432391206	2004			1/24/2001	1/8/2013	BIO	ROSS	Satisfactory Well	
84062	380432407091	2004			8/18/1986	6/23/2011	P-GD	ROSS	Satisfactory Lake	
28986	370405493492	2005				11/10/2011	ATU-DI	ROSS	Satisfactory Well	
83797	380430415090	2005			1/6/2009	6/11/2014	P-GD	ROSS	Satisfactory Well	
83821	380430448089	2005	8/25/2005		9/30/2004	5/19/2014	BIO	ROSS	MN-Minor Well	
83838	380430480073	2005	4/9/2006		3/3/2004	9/14/2012	BIO	ROSS	Satisfactory Well	
83863	380430504105	2006	1/12/2006		8/26/2004		BIO		Well	
83867	380430510064	2006			4/13/2005	11/26/2014	BIO	ROSS	Satisfactory Well	
28959	370405448518	2007			6/8/2009	7/20/2009	PD	HROSS	Satisfactory Well	55
83833	380430473088	2007			8/26/2004	4/22/2015	BIO	ROSS	Satisfactory Well	
84044	380432371206	2007	3/28/2013		1/21/2003	8/7/2014	ATU-PD	ROSS	Satisfactory Well	
83971	380432110540	2008	6/17/2006		8/23/2005	1/25/2015	BIO	ROSS	Satisfactory Well	
84008	380432230425	2008	10/7/2009		6/23/2008	12/6/2011	PD	ROSS	Satisfactory Well	500
84011	380432239317	2008	2/13/2012		9/19/2008	2/13/2012	SF-M	ROSS	Satisfactory Well	250
84040	380432355196	2009			10/30/2002	6/21/2014	ATU-PD	ROSS	Satisfactory Well	400
175016	380432078535	2012	10/13/2011		4/14/2011	10/14/2014	DI	ROSS	Satisfactory Well	
83835	380430478051	2012	9/30/2011		2/19/2010	9/30/2011	PD	NEW	Satisfactory Well	
83995	380432205362	2014	9/4/2014		2/27/2004	9/4/2014	P-GD	NEW	Satisfactory Well	150

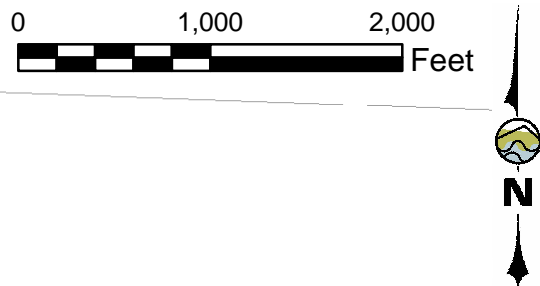


LEGEND

- Existing Manhole
- Gravity Sewer
- - - Existing Sewage Interceptor or Force Main
- Existing Sewage Pump Station
- Existing Onsite Septic System
- LWWSD Boundary
- Pump Station Service Area Boundary
- Watershed Protected Properties
- Exclusions
- Vacant

YearBuilt

- 1901 - 1989
- 1990 - 2015
- Under Construction



<p>WILSON ENGINEERING, LLC 805 DUPONT STREET BELLINGHAM, WA 98225 (360) 733-6100 FAX (360) 647-9061 www.wilsonengineering.com</p>	
<p>DESIGNED BY MMM</p> <p>DRAWN BY RDN/RW</p> <p>CHECKED BY MMM</p>	<p>LAKE WHATCOM WATER & SEWER DISTRICT WASHINGTON</p> <p>NORTHSHORE SEWER EXTENSION LAND OCCUPANCY</p> <p>WHATCOM COUNTY</p>
<p>DATE NOV 2015</p> <p>SCALE AS SHOWN</p> <p>JOB NO. 2015-053</p>	<p>SHEET 1</p> <p>OF 1</p>