

Urban Septic System Conversion Strategy

City of Olympia Public Works

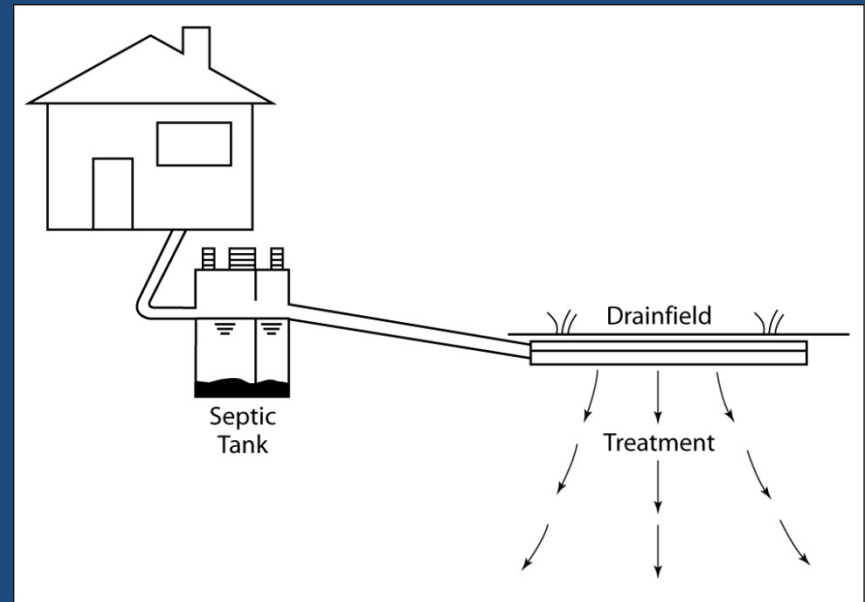
May 5, 2016

UAC



The Problem

- Onsite septic systems in our region often operate in poor soils and shallow groundwater.
- OSS discharge only partially treated wastewater.
 - Nitrogen levels are still high.
- Nitrogen impacts groundwater, surface water and marine environments.



Septic System Use

	Within Cities	County UGA
Olympia	1,871	2,221
Lacey	1,470	8,557
Tumwater	987	1,638
TOTAL	4,328	12,416
	16,744	

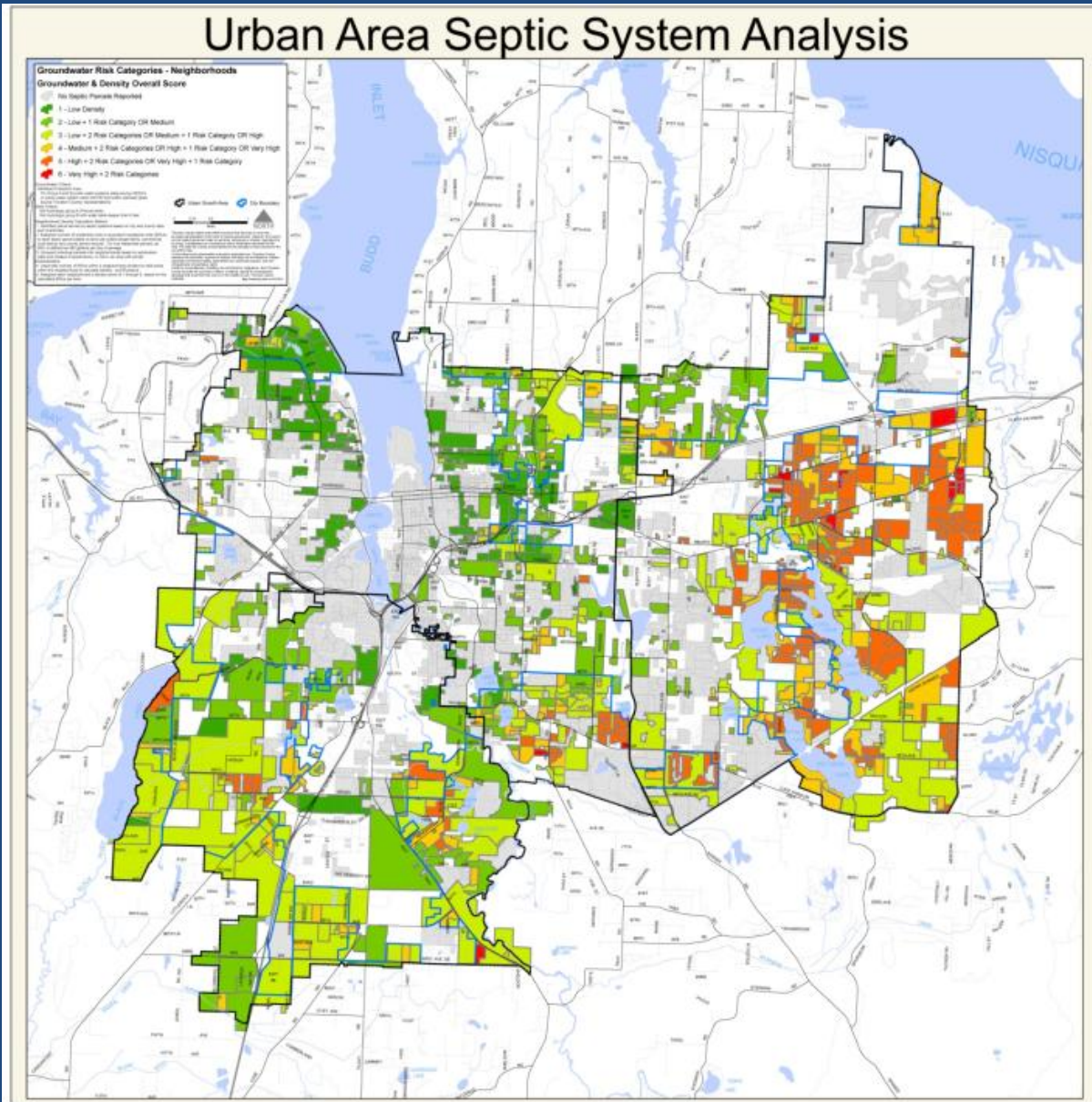
Small Lots with Septic Systems are Challenging



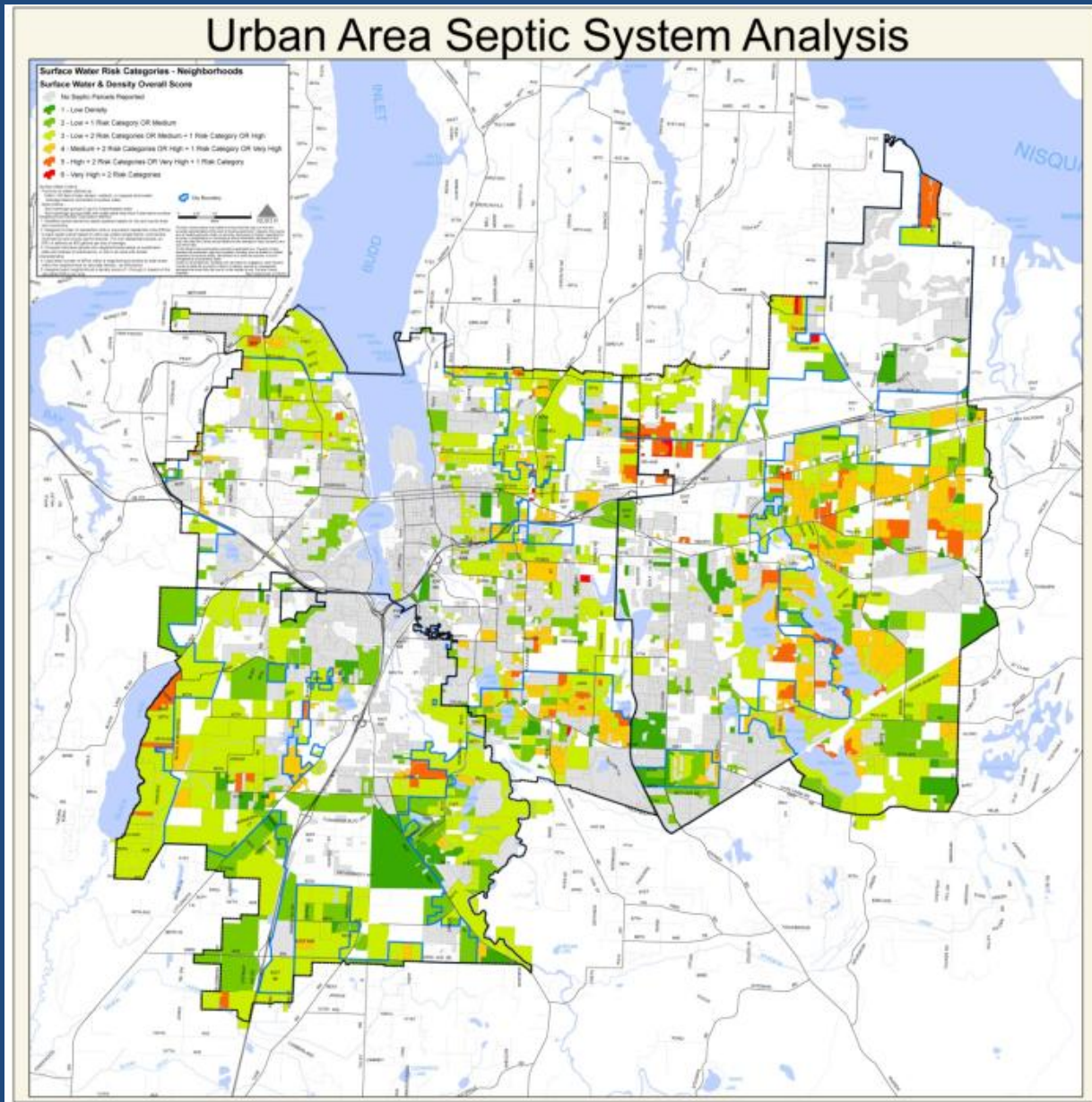
Thurston County Risk Assessment

- Inventoried Septic Systems
- Calculated Septic Density
- Evaluated Soils
 - Too tight...surface water implication
 - Too loose...groundwater implication
- Projected Water Quality Risks
 - Surface water
 - Groundwater
- Established Priorities for Converting to Municipal Sewer

Groundwater Risk Areas



Surface Water Risk Areas



Regional Conversion Priorities

<i>Priorities for Converting to Municipal Sewer</i>	High Priority 5 & 6	Medium Priority 3 & 4	TOTAL: High and Medium Priority
Lacey & County UGA	4,581	5,193	9,774
Olympia & County UGA	486	2,592	3,078
Tumwater & County UGA	293	1,734	2,027
Totals	5,360	9,519	14,879

The higher the score, the higher the priority

Characterizing Olympia's OSS

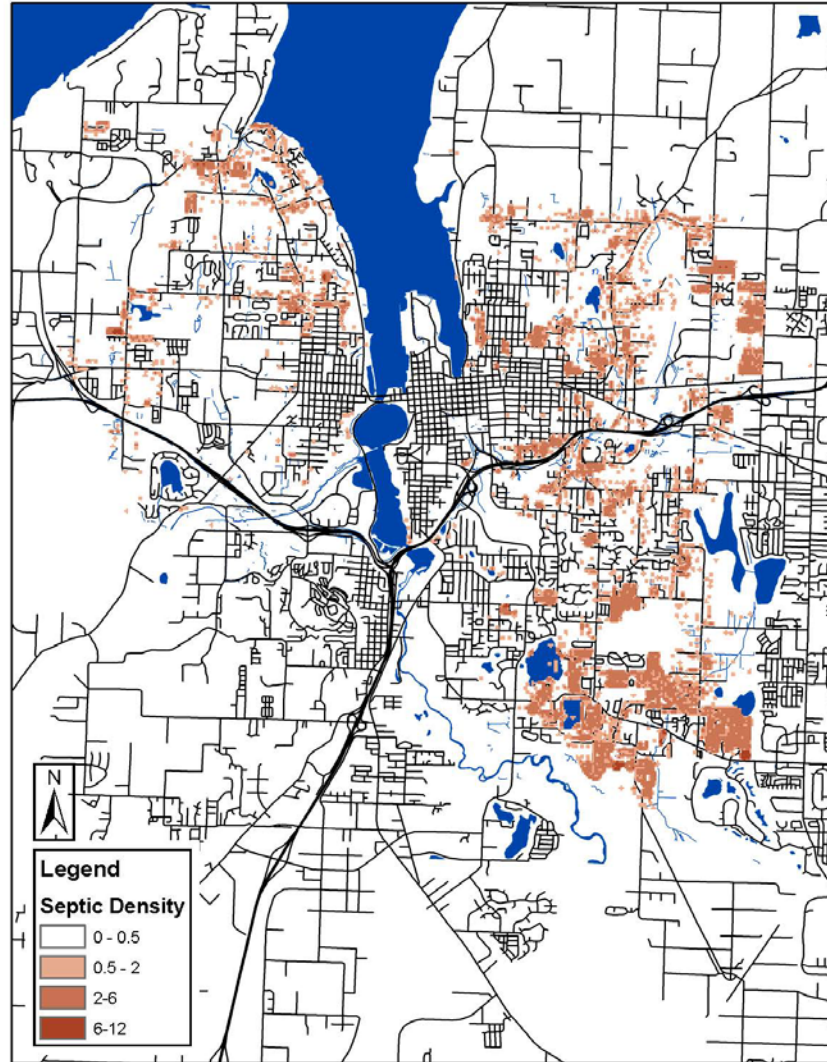
Total: 4,100 systems

- 1,100 within 200 feet of existing sewer line
- 775 within Henderson Inlet protection district
- 1,200 with drinking water wells on the lot
- 800 within City water well protection areas
- 240 within critical areas



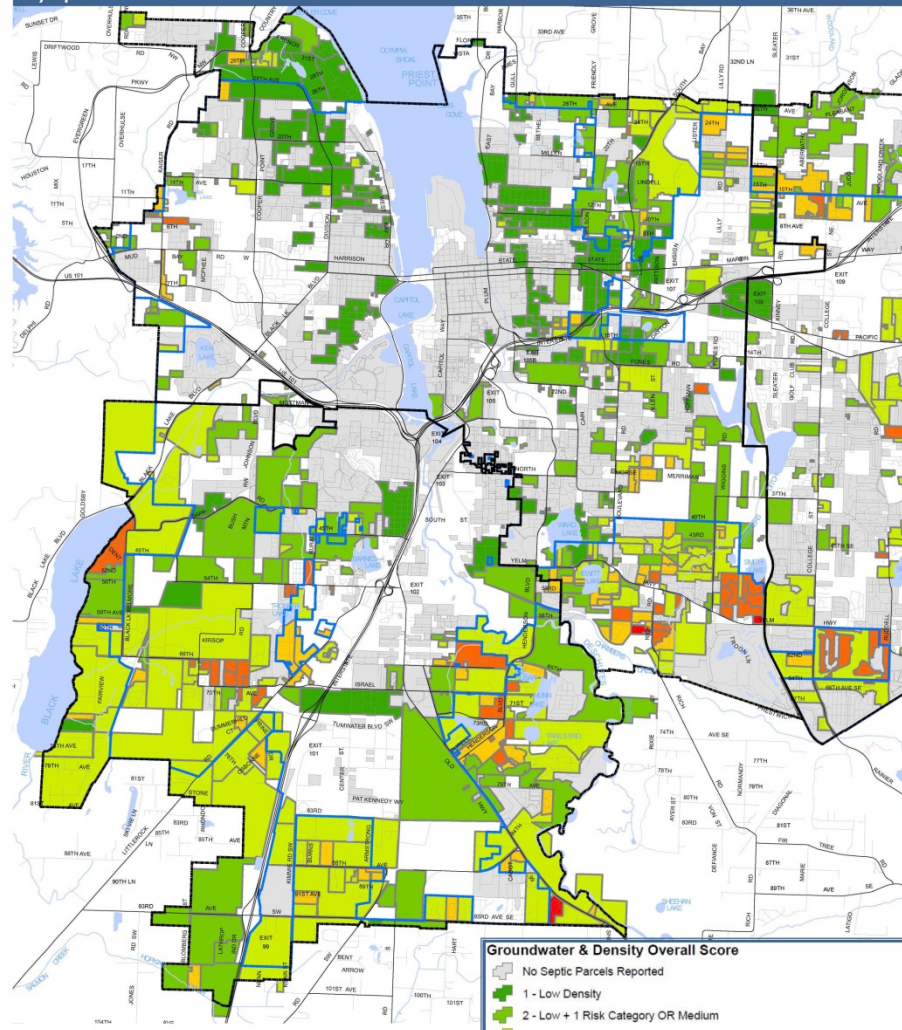
Septic Systems in Olympia

Map of Septic Densities in Olympia and Its Urban Growth Area





Groundwater Risk Scores—All Neighborhoods

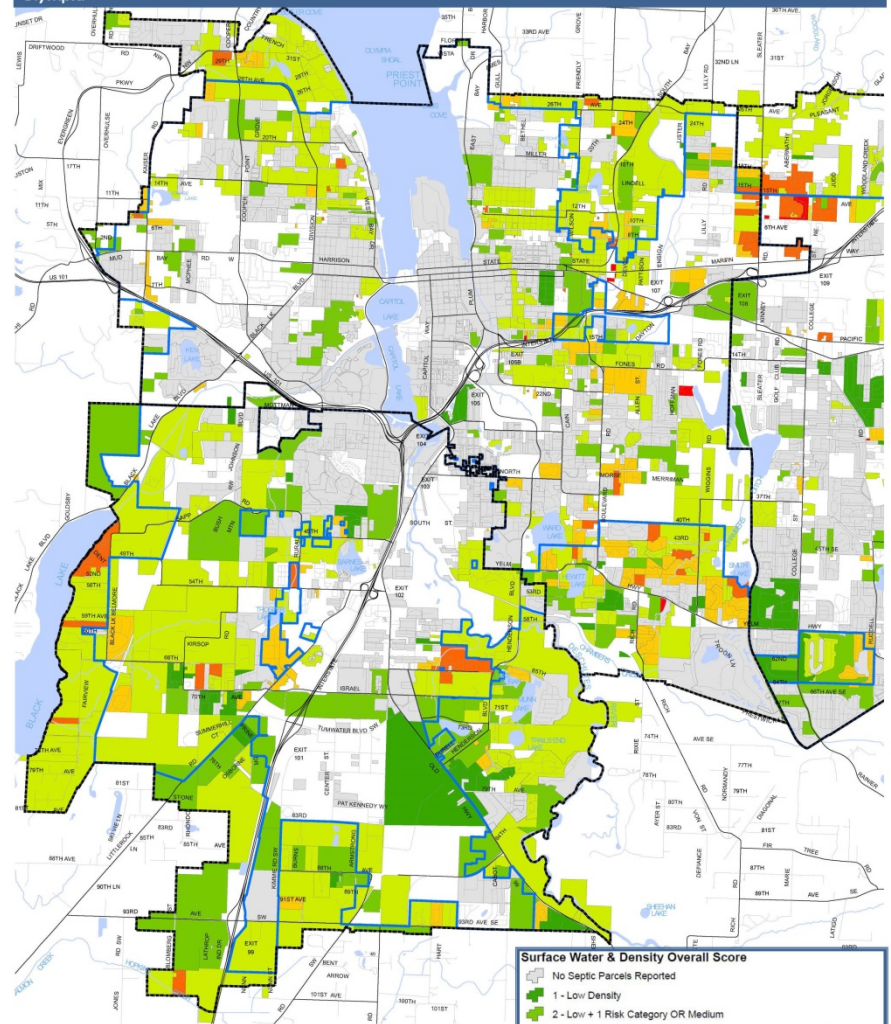


Groundwater & Density Overall Score

- No Septic Parcels Reported
- 1 - Low Density
- 2 - Low + 1 Risk Category OR Medium
- 3 - Low + 2 Risk Categories OR Medium + 1 Risk Category OR High
- 4 - Medium + 2 Risk Categories OR High + 1 Risk Category OR Very High
- 5 - High + 2 Risk Categories OR Very High + 1 Risk Category
- 6 - Very High + 2 Risk Categories



Surface Water Risk Scores—All Neighborhoods

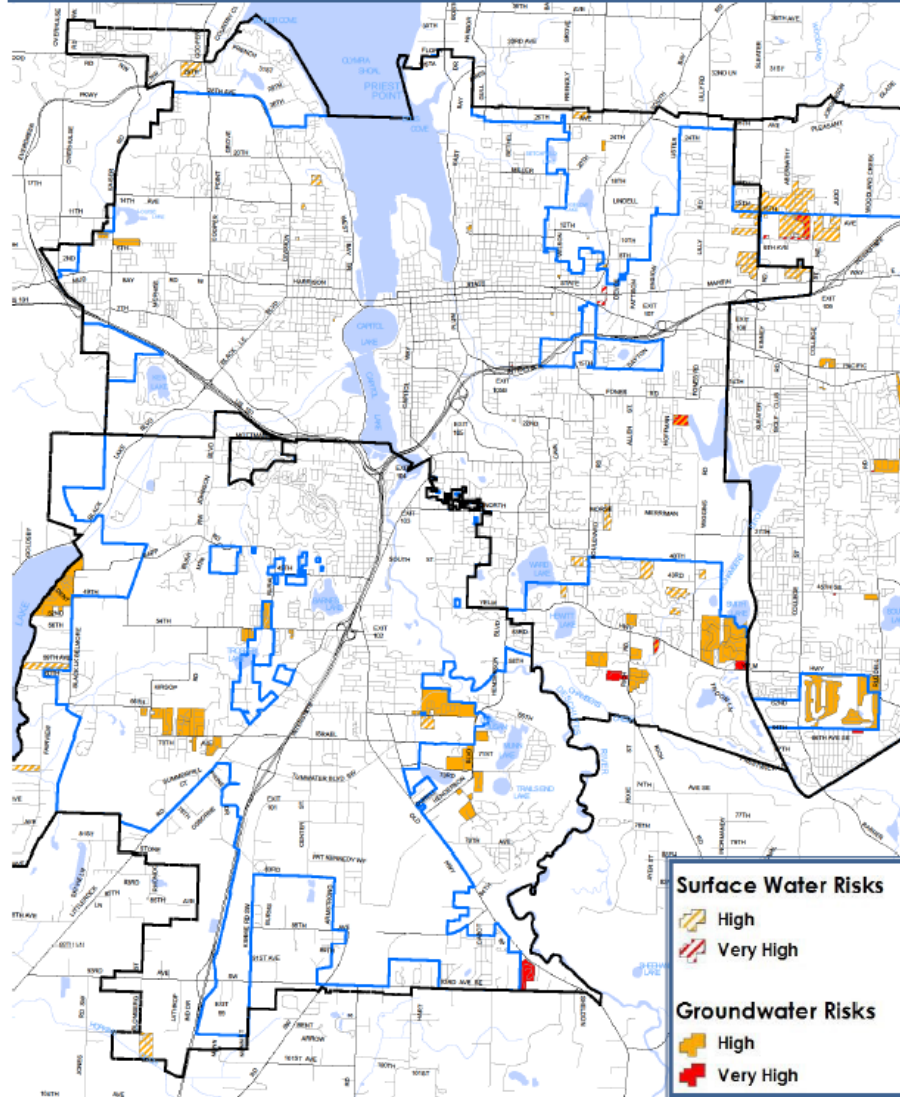


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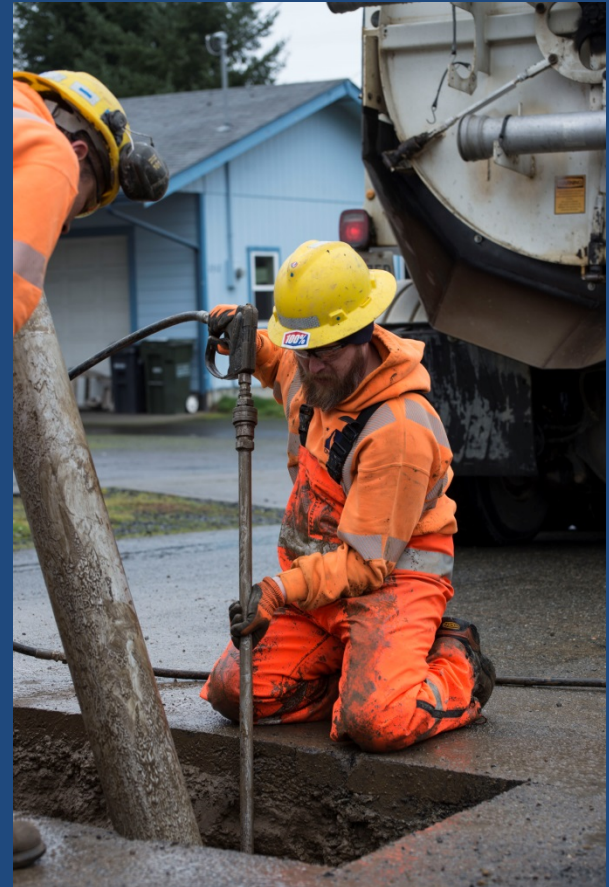
High-Risk Septic Systems in Olympia



High Priority OSS

Proximity to City sewer

- 51 adjacent to sewer
- 27 within 200 feet of sewer
- 11 within 300 feet
- 384 greater than 300 feet



Olympia's Septic to Sewer Program

Septic System Conversions

- 90 in 2009-2014 (up from 5 per year)

General Facility Charge Waivers

Neighborhood-requested Extensions

- Central Street

Sewer Extensions with Road Projects

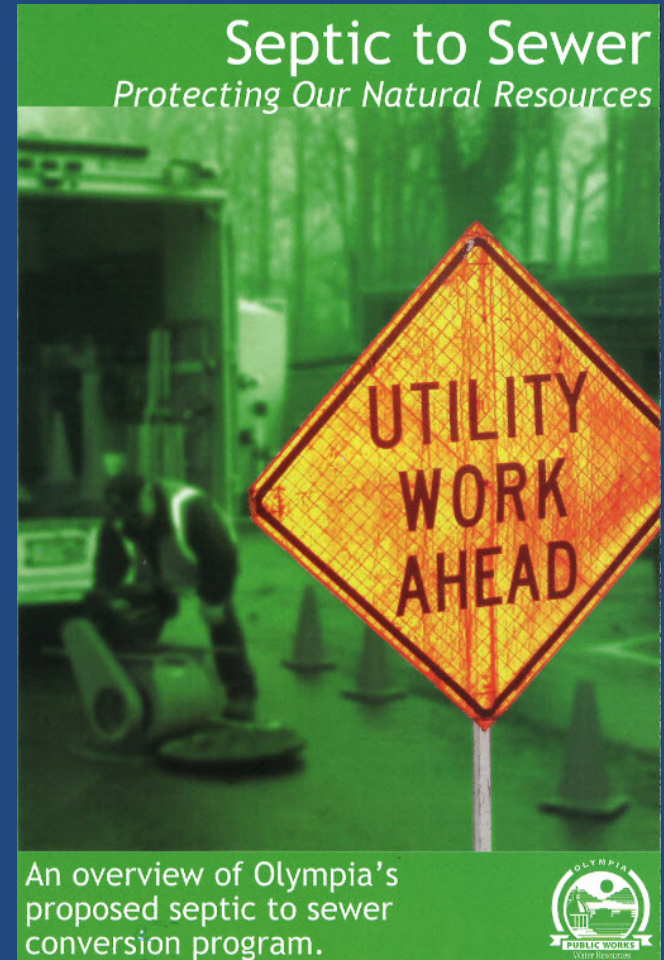
- Yelm Highway, 18th Avenue, Sleater-Kinney (\$12 M invested)

Technical Assistance

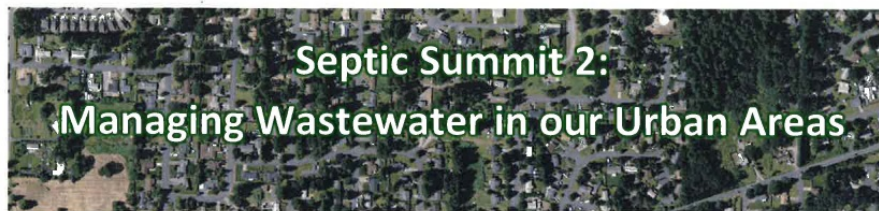
- City support for septic system owners

Ongoing Capital Funding

- Sewer extensions for individuals and neighborhoods



Regional Work Effort



Date: March 12, 2015

To: Mayor and Council Members, City of Lacey
Mayor and Council Members, City of Olympia
Mayor and Council Members, City of Tumwater
Thurston County Board of Commissioners

From: Stephen Langer, President, LOTT Clean Water Alliance Board of Directors

On behalf of the LOTT Clean Water Alliance Board of Directors, I invite you to join your elected colleagues for a regional summit addressing the issue of septic systems in our urban areas. As a wastewater utility serving the greater Lacey-Olympia-Tumwater area, the LOTT Board is convening a summit for our partner elected officials. The summit is intended as a forum to review issues related to urban density septic systems and options for addressing the issues. This is an important regional discussion, and I encourage you to attend and participate.

Septic Summit 2
Wednesday, April 29
5:30 - 9:00 p.m.

(Light dinner provided at 5:30, meeting begins at 6:00)
LOTT Regional Services Center Board Room
500 Adams Street NE, Olympia

Please put this date and time on your calendars.

A previous summit was held on this topic in 2011. In response to direction received at that meeting, a Regional Septic Work Group has been working to explore conversion issues and potential solutions. The Work Group has recently completed a report summarizing their work. Key points from the report and other recent work will be presented at the April 29 summit; however, most of the agenda will be devoted to dialogue among the elected leaders. Staff members from each of your jurisdictions are actively involved in planning and preparation for the summit. More detailed information about the agenda will be provided soon.

cc: City and County Administrators
Public Works Directors and Water Resources Staff
Executive Director and Staff, LOTT Clean Water Alliance
Council Members and Staff, Squaxin Island Tribe and Nisqually Tribe

Regional Work Group, 2011 - 2016

Lacey, Tumwater, Thurston County, Olympia

- Evaluate risks and priorities
- Understand conversion approaches used elsewhere
- Evaluate potential financial structures
- Share with elected officials
- Begin developing a regionally coordinated/locally implemented strategy

Example Conversion Programs

- Programs are Feasible, but Challenging
 - It takes a long time
 - Expensive
 - It requires a public financial commitment
- Spread out the costs
- Convert at the neighborhood scale
- Implement regionally

Regional Coordination...Local Implementation

- Implement similar community expectations and financial structures
- Each City focuses on its unique priorities
- Accept reasonable timeframes.....50 to 75 years



Finances

Keep homeowner costs similar to the cost of replacing a failed septic system (\$15K)

Publicly-funded sewer extensions

- Utility rates
- Sewer availability charge
- Latecomers fees/cost recovery
- Partner with street projects
- Low-income assistance

Incentives

- Waiver/reduction of City and/or LOTT connection fees

Requiring Connection

- System failure
- Expansion/remodel
- Sale of property

Funding Currently Available

Olympia's 2016-2021 Capital Facility Plan

- Annual Sewer Extensions...\$948 K
- Neighborhood Sewer Program...\$1.05 M

Current Conversion Capacity...30 per year

Implementation Schedule with Current Funding

- All 4,100...136 years
- High and medium priority...103 years
- High priority...16 years

If City Sewer is Already in the Street

Sewer Availability Charge?

Potential Revenue from Existing OSS in Olympia?

- 780 OSS accounts
- \$515,000/year or 40 conversions



Recommended Next Steps

- Continue to Coordinate with Lacey, Tumwater, and Thurston County
- Request Board of Health Resolution Responding to Public and Environmental Health Risks
- Public Education Campaign: 2016-2017
- Update of Local Codes and Plans: 2017-2018
- Program Implementation: 2018-2019