STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 18-1427, FOR THE PURPOSE OF EXPANDING THE URBAN GROWTH BOUNDARY TO PROVIDE CAPACITY FOR HOUSING TO THE YEAR 2038 AND AMENDING THE METRO CODE TO CONFORM

Date: November 28, 2018 Prepared by: Ted Reid, Principal Regional Planner

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BACKGROUND

Summary of process to date

Process improvements

In 2010, the Metro Council and its partners made several improvements to the region's urban growth management processes. Those improvements include the adoption of urban and rural reserves, adoption of the requirement that a concept plan be completed for an urban reserve before the area is added to the UGB, the adoption of six desired outcomes in the Regional Framework Plan, and the adoption of an expedited process for considering UGB expansion proposals for employment (non-residential) uses.

The expedited process for employment expansions has been accompanied by Metro's ongoing support and participation in the Regional Industrial Site Readiness partnership. That partnership has maintained an inventory of large industrial sites (25 plus net buildable acres per site) in the UGB, documenting the actions that need to be taken to make them development-ready.

When making a growth management decision in late 2015, the Metro Council provided additional direction, including:

- Produce a new draft urban growth report within three years.
- Continue working with Clackamas County and Multnomah County to finalize urban and rural reserve designations and to seek acknowledgement of reserves from the Land Conservation and Development Commission as soon as possible.
- Work with its regional partners to explore possible improvements to the region's growth management process.

Metro Council and staff have worked with our partners to successfully address that direction.

In 2016, Council President Hughes convened the Urban Growth Readiness Task Force, which provided additional suggestions for improving the region's residential urban growth management process. The Task Force included mayors, county commissioners, and representatives from the Oregon Department of Land Conservation and Development, 1000 Friends of Oregon, and the Home Builders Association of Metropolitan Portland. The Task Force's unanimous recommendations were intended to provide the Council with additional flexibility to respond to city proposals for residential urban growth boundary (UGB) expansions. The Task Force also made suggestions for what should be expected of cities making expansion proposals. The Metro Council accepted the Task Force's recommendations with adoption of Resolution No. 17-4764.

Throughout 2017, Metro staff worked with the Metro Technical Advisory Committee (MTAC) to develop Metro code that would lay out those expectations for cities proposing residential UGB expansions. Based

on MTAC and the Metro Policy Advisory Committee's (MPAC) unanimous recommendations, the Council adopted code amendments in December 2017 with Ordinance No. 17-1408.

In 2017, Metro and a coalition of partners also successfully advocated for changes to state law that provide the region with additional flexibility for responding to city proposals for residential UGB expansions. That legislation enables a "mid-cycle" residential UGB amendment process that the Council may choose to use in 2021 (pending city proposals).

Four city expansion proposals

Four cities – Beaverton, Hillsboro, King City and Wilsonville – submitted UGB expansion proposals by the May 31, 2018 deadline. Together, the four cities have proposed expansions totaling 2,181 acres. The proposed expansions are depicted on maps included as Attachments 1 through 4 to this staff report. The four cities have presented their proposals at Council work sessions, MPAC and MTAC. The four cities addressed Metro code requirements in their proposals, including the requirement – adopted in 2010 – that a concept plan be completed before the Council expands the UGB as well as newer factors – adopted in 2017 – that clarify expectations for cities.

Public comment on city proposals

Metro staff conducted an online comment period on the four city proposals from June 8 through July 9, 2018. Public comments have been compiled and summarized in a report that was posted on Metro's website and made available to the Metro Council and MPAC.

Additional perspectives on city readiness

Recognizing that the Council's new approach to growth management decisions would benefit from new perspectives, in June 2018 Council President Hughes convened private and public sector experts in affordable housing, parks planning, residential and mixed-use development, multimodal transportation, and equity. City Readiness Advisory Group (CRAG) members were asked to identify the strengths and weaknesses of city proposals. Their discussion was summarized at a Council work session, MPAC and MTAC.

Draft 2018 Urban Growth Report

Metro staff has completed a draft Urban Growth Report (UGR) and presented it to the Metro Council, MPAC and MTAC. The draft UGR demonstrates that the Council has the latitude to determine whether there is a regional need for the proposed UGB expansions.

Two essential elements of the UGR – the regional range forecast and the buildable land inventory – were peer reviewed by external technical experts. Likewise, Metro subjected its land use model, MetroScope, to peer review.

The UGR's buildable land inventory methods and results, as well as other modeling assumptions, were discussed at meetings of the Land Use Technical Advisory Group on the following occasions:

6-20-17

9-26-17

10-24-17

11-28-17

12-19-17

1-23-18

2-27-18

3-27-18

In late 2017 and early 2018, a preliminary buildable land inventory was made available to all cities and counties for review. The buildable land inventory included in the draft UGR responds to all edits that were received from cities and counties.

MTAC engagement

MTAC has been engaged in topics related to the 2018 growth management decision for the last two-and-a-half years, including:

3-2-16	Work program update
6-1-16	Urban Growth Readiness Task Force update
7-6-16	Urban Growth Readiness Task Force update
7-13-16	Initial suggestions for addressing recommendations from the Urban Growth Readiness
	Task Force
8-3-16	Initial suggestions for addressing recommendations from Urban Growth Readiness Task
	Force
9-7-16	Urban Growth Readiness Task Force update
10-19-16	Metro Title 14 amendments (expectations for cities proposing residential UGB
	expansions)
12-7-16	Urban Growth Readiness Task Force update
2-1-17	Metro Title 14 amendments (expectations for cities proposing residential UGB
	expansions)
4-5-17	Work program overview for 2018 growth management decision
4-5-17	Metro Title 14 amendments (expectations for cities proposing residential UGB
	expansions)
8-2-17	Metro Title 14 amendments (expectations for cities proposing residential UGB
	expansions)
9-6-17	Recommendation to MPAC: Metro Title 14 amendments (expectations for cities
	proposing residential UGB expansions)
10-4-17	Goal 14 analysis (locational factor analysis of urban reserves)
2-7-18	Regional population and employment forecast
3-7-18	Buildable land inventory
5-16-18	Goal 14 analysis (locational factor analysis of urban reserves)
6-20-18	UGB expansion proposal presentations by Beaverton, Hillsboro, King City, Wilsonville
7-11-18	Draft UGR; urban reserve alternatives analysis
7-18-18	Summary of CRAG discussions of city expansion proposals

MPAC engagement

MPAC has devoted much of 2017 and 2018 to discussing residential and employment trends and the region's economic outlook, preparing itself to make a growth management recommendation to the Metro Council. MPAC discussions related to the urban growth management decision have included the following:

3-8-17	Work program summary
9-27-17	Metro Title 14 amendments (expectations for cities proposing residential UGB
	expansions)
9-27-17	Housing trends in Portland and Hillsboro
10-11-17	MPAC recommendation: Metro Title 14 amendments (expectations for cities proposing
	residential UGB expansions)
10-11-17	Housing trends in Clackamas Co. and Milwaukie
10-25-17	Housing trends in Wilsonville and Beaverton
1-24-18	Housing trends in Tigard

3-14-18	Update on growth management process
4-11-18	Regional population and employment forecast panel discussion
4-25-18	Employment trends panel discussion
6-13-18	Expansion proposals: Hillsboro and King City
6-27-18	Expansion proposals: Wilsonville and Beaverton
7-11-18	Draft Urban Growth Report
7-25-18	Report from CRAG on strengths and weaknesses of city expansion proposals
9-12-18	Chief Operating Officer recommendation; MPAC recommendation

When prompted at its July 11 and 25, 2018 meetings, MPAC did not identify any additional technical questions for MTAC regarding the UGR or city proposals for UGB expansions.

Stakeholder engagement

In addition to MPAC and MTAC engagement and other technical peer review activities, Metro staff has attended a number of stakeholder meetings to describe the growth management process, regional analysis, city proposals, and Chief Operating Officer recommendations.

Chief Operating Officer recommendation

Metro's Chief Operating Officer (COO) issued a recommendation on August 28, 2018. The Metro Council discussed the recommendation at a September 4, 2018 work session and MPAC discussed it at its September 12, 2018 meeting. The COO recommendation is to expand the UGB in the four proposed areas (Beaverton, Hillsboro, King City and Wilsonville) with conditions of approval that encourage a mix of housing.

Metro's COO also recommended that staff return to the Metro Council in early 2019 with proposed work programs to gain a better understanding of changes in the changing economy and to refresh the 2040 Growth Concept.

MPAC recommendation

On September 12, 2018 MPAC unanimously endorsed the COO recommendations.

Council direction via Resolution No. 18-4914

The Metro Council held two public hearings on September 20 and 27. On September 27, the Council passed Resolution No. 18-4914, which provided staff with Council's direction for its intended growth management decision. That Council direction is consistent with the COO recommendations, which were also unanimously endorsed by MPAC. In response to Council direction in Resolution 18-4914, staff has worked to complete required analyses and public notices.

Proposed for Metro Council consideration

Final 2018 Urban Growth Report

A proposed final 2018 UGR is included as Exhibit E to Ordinance No. 18-1427. That analysis includes the buildable land inventory, reporting on residential development trends, housing needs analysis, and other components that meet Metro's legal requirements.

Since the draft UGR was released, staff has made minor corrections to the proposed buildable inventory found in UGR Appendix 2. Those corrections do not have a noteworthy impact on overall growth capacity in the UGB.

Since the draft UGR was released, and based on the Metro Council's direction in Resolution No. 18-4914, staff has worked towards completing a Housing Needs Analysis. That analysis is included as UGR Appendix 5A. A summary of its capacity gap analysis is included below.

The Housing Needs Analysis identifies a need for additional land in the UGB to address single-family housing needs (attached and detached housing). The Housing Needs Analysis assumes the baseline (midpoint of the forecast range) household forecast as documented in UGR Appendix 1 and the mid-point of the buildable land inventory range as documented in UGR Appendix 2. It also assumes that the Metro UGB will "capture" a share of the larger 7-county household growth that is in keeping with historic and modeled rates. The analysis also assumes that 50 percent of the new housing will be single-family housing (attached and detached), a rate that represents a continued long-term shift towards multifamily and single-family attached housing. The Housing Needs Analysis summarizes the regional need for additional single-family housing as follows:

7-county MSA new households, 2018 to 2038 (midpoint of range):	279,000
7-county MSA new dwelling units (apply 5% vacancy rate):	293,000
Metro UGB new dwelling units (capture rate range = 67.2%:	196,900
Metro UGB new single family dwelling units (SF rate = 50%):	98,400
Metro UGB existing single family capacity (attached & detached):	92,300
Unmet single family dwelling unit (attached and detached) need:	6,100

The proposed 2,181 gross acres of UGB expansions will provide a total of approximately 6,100 single-family housing units along with approximately 3,100 multifamily units, for a total of approximately 9,200 homes. The proposed 6,100 single-family units in expansion areas will address the range of need for 6,100 single-family homes. The proposed conditions of approval for the UGB expansion seek to enhance the variety of single-family attached housing that will be allowed in the expansion areas. It is likely that the number of allowed housing units in each area will increase as a result.

As documented in the range buildable land estimates in the draft 2018 UGR, the existing UGB has ample land planned for multifamily housing. Today, 36 percent of existing housing is multifamily housing. The 2018 UGR indicates that share is likely to increase over time as allowed under city and county zoning. No UGB expansion is required to accommodate multifamily housing growth.

While no UGB expansion is required to accommodate multifamily housing growth, most of the proposed UGB expansions include some amount of multifamily housing to ensure that these areas provide a variety of housing choices and comply with the state Metropolitan Housing Rule. Likewise, cities have often included multifamily housing as a means of decreasing infrastructure costs per home and to make more efficient use of land. To ensure that people of varied backgrounds can find housing in these new communities, the conditions of approval require each city to allow additional single-family attached housing options in locations planned for single-family housing in the expansion areas.

Metro staff has also completed a two-step process for assessing the urban reserve areas in the region as candidates for UGB expansion. The first step, the Preliminary UGB Alternatives Analysis Report (UGR Appendix 7), is an assessment of all 32 urban reserve areas for meeting Statewide Planning Goal 14 requirements for UGB expansion. That assessment was included in the draft UGR. Since the draft UGR was released, staff has completed the second step, which is an evaluation of the Metro Code requirements for a UGB expansion on a smaller set of urban reserves based on the results of the Goal 14 analysis. The second analysis is included as UGR Appendix 7A. These analyses find that the four urban reserve areas under consideration for UGB expansion in 2018 are suitable candidates under the applicable factors and may be included the UGB.

Conditions of approval

As directed by the Metro Council, Ordinance No. 18-1427 includes conditions of approval in Exhibit C. These conditions are intended to implement the direction provided by the Metro Council when it endorsed the Metro COO's and MPAC's recommendations.

UGB expansion to address public health hazard

A 4.88 acre parcel of developed land located at the corner of NW Cornelius Pass Road and NW West Union Road in unincorporated Washington County and within an urban reserve area 8F is proposed for inclusion in the UGB to address a public health hazard caused by a failing septic system. The property is known as West Union Village Square and is developed with a variety of commercial uses, including a butcher shop/smokeshop, an auction house, an insurance agency, and a hair salon. The area is shown on the map included as Attachment 5 to this staff report.

Two recent evaluations in October 2017 and June 2018 (Attachments 6 and 7 to this staff report) indicate that continued use of the system will result in an imminent public health hazard as defined in OAR 340-071-0100(117), as well as a violation of state wastewater treatment system rules. Due to site conditions, this problem can only be realistically addressed by connection to a sanitary sewer system. However, Metro Code section 3.09.090 prohibits a city or service district from extending water or sewer service from inside a UGB to territory that lies outside the UGB. The City of Hillsboro is willing to provide sanitary sewer services to the property. In order for this to occur the property would need to be annexed to the City which requires the land be within the UGB.

Metro and City of Hillsboro staff agree that the land may be added to the UGB in order provide sewer service provided that no change of use or intensification of uses will occur as a result of the UGB amendment. Accordingly, Metro staff agreed to condition the administrative amendment to require that "there shall be no change of use or intensification of individual uses on any portion of the 4.88-acre property until Urban Reserve Area 8F has been brought into the UGB and the City of Hillsboro has adopted comprehensive plan amendments for the surrounding urban reserve land." The City of Hillsboro will include the same language in an annexation agreement that the property owner will sign prior to sanitary sewer services being provided.

Next steps

The Council will hold a public hearing on December 6 and, on December 13, make a decision regarding Ordinance No. 18-1427, which will formalize the Council's 2018 growth management decision and provide any other direction that the Council wishes to give to staff.

ANALYSIS/INFORMATION

1. Known Opposition

Public comments on the four city expansion proposals indicate some opposition to specific UGB expansions.

A conservation land trust and other stakeholders have expressed concern that a conservation easement over a property in the proposed King City expansion area needs to be honored (King City's concept plan for the area indicates a road extension across the property that would not be allowed under the conservation easement).

Business interest groups have indicated concern about the regional employment forecast for industrial employment.

Regarding the proposed conditions of approval, some staff from cities proposing UGB expansions have suggested that it would be more appropriate to go through a process to amend the Urban Growth Management Functional Plan to update (region-wide) requirements related to accessory dwelling units rather than imposing new requirements on just the four cities proposing UGB expansions.

2. Legal Antecedents

- Statewide Planning Goals 10 (Housing) and 14 (Urbanization)
- Oregon Revised Statutes 197.296, 197.299, and 197.303 (Needed Housing in Urban Growth Areas)
- Oregon Administrative Rules, Division 24 (Urban Growth Boundaries)
- Metro Regional Framework Plan, Chapter 1 (Land Use)
- Metro Urban Growth Management Functional Plan, Titles 11 (Planning for New Urban Areas) and 14 (Urban Growth Boundaries)
- Metro Ordinance No. 15-1361 (2015 growth management decision, which provides direction for this decision process)
- Metro Resolution No. 17-4764 (accepting recommendations from the Urban Growth Readiness Task Force)
- Metro Resolution No. 18-4914 (describing the Metro Council's intent for its 2018 urban growth management decision)

3. Anticipated Effects

Metro Council adoption of Ordinance No. 18-1427 would formalize the Metro Council's 2018 legislative urban growth management decision. By approving the ordinance, the Metro Council would:

- Adopt a final 2018 Urban Growth Report that identifies a need for additional housing capacity;
- amend the UGB to include four urban reserve areas to provide additional housing capacity;
- amend the UGB in Washington County to allow a health hazard from a failing septic system to be addressed:
- place conditions on the four expansion areas to, among other things, allow a greater mix of housing to be built; and,
- adopt Findings of Fact and Conclusions of Law that describe how the 2018 Urban Growth Report, the UGB expansions, and the conditions of approval satisfy Metro's legal requirements.

4. Budget Impacts

Likely budget impacts are accounted for in current staffing levels.

RECOMMENDED ACTION

Adopt Ordinance No. 18-1427.

ATTACHMENTS

Attachment 1: Map of proposed Advance Rd. UGB expansion

Attachment 2: Map of proposed Beef Bend South UGB expansion

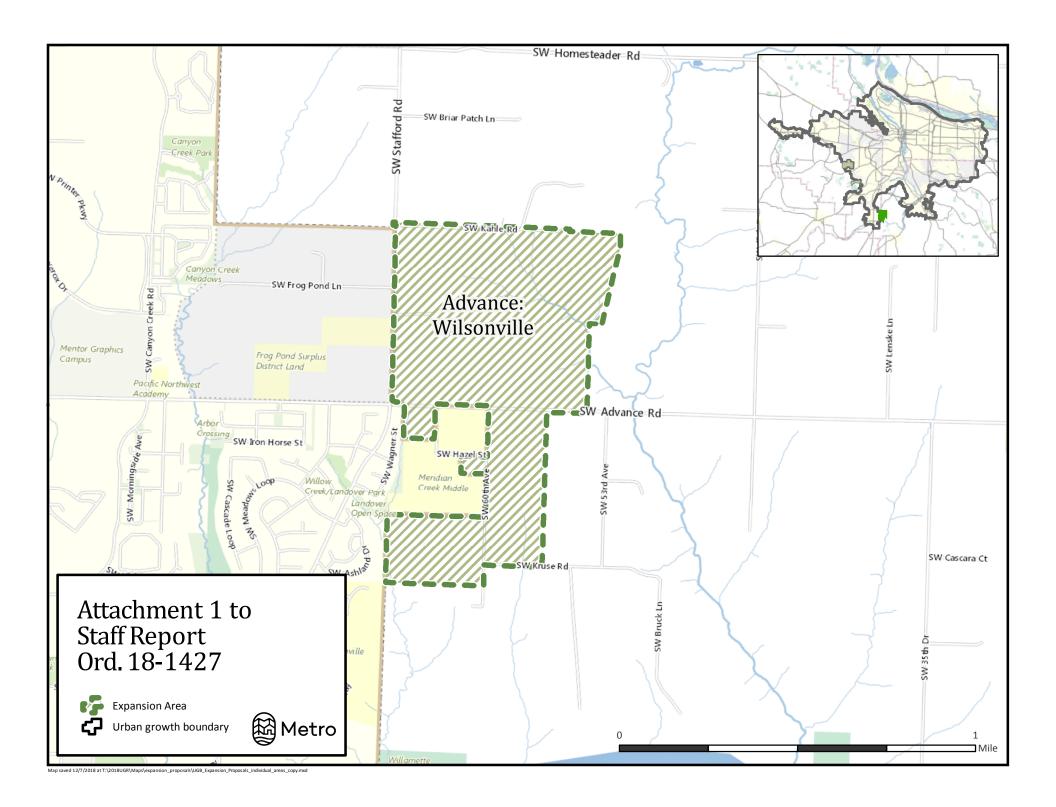
Attachment 3: Map of proposed Cooper Mountain UGB expansion

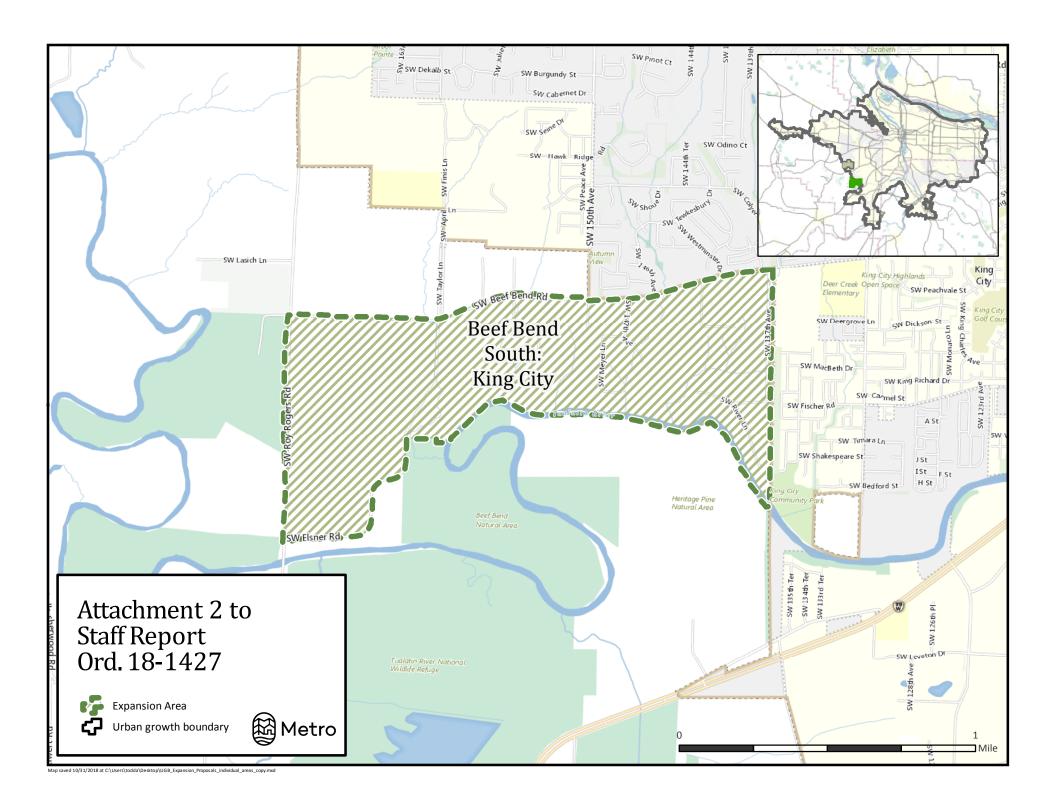
Attachment 4: Map of proposed Witch Hazel Village South UGB expansion

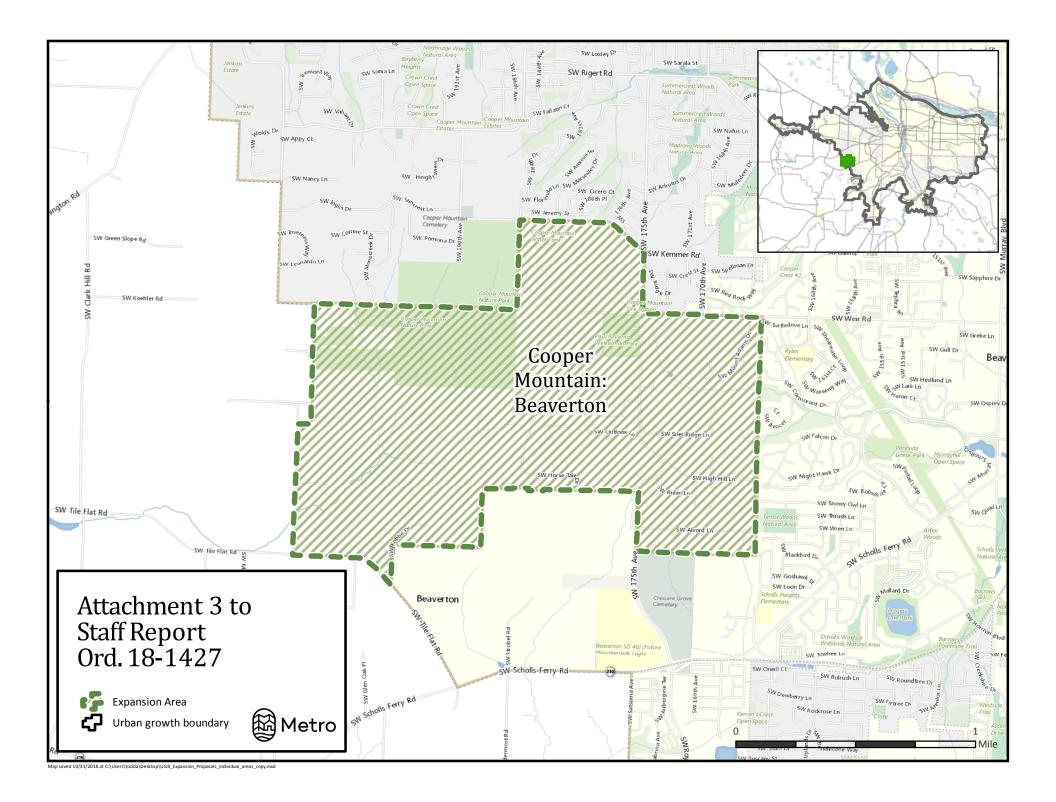
Attachment 5: Map of proposed UGB expansion to address health hazard from failing septic system

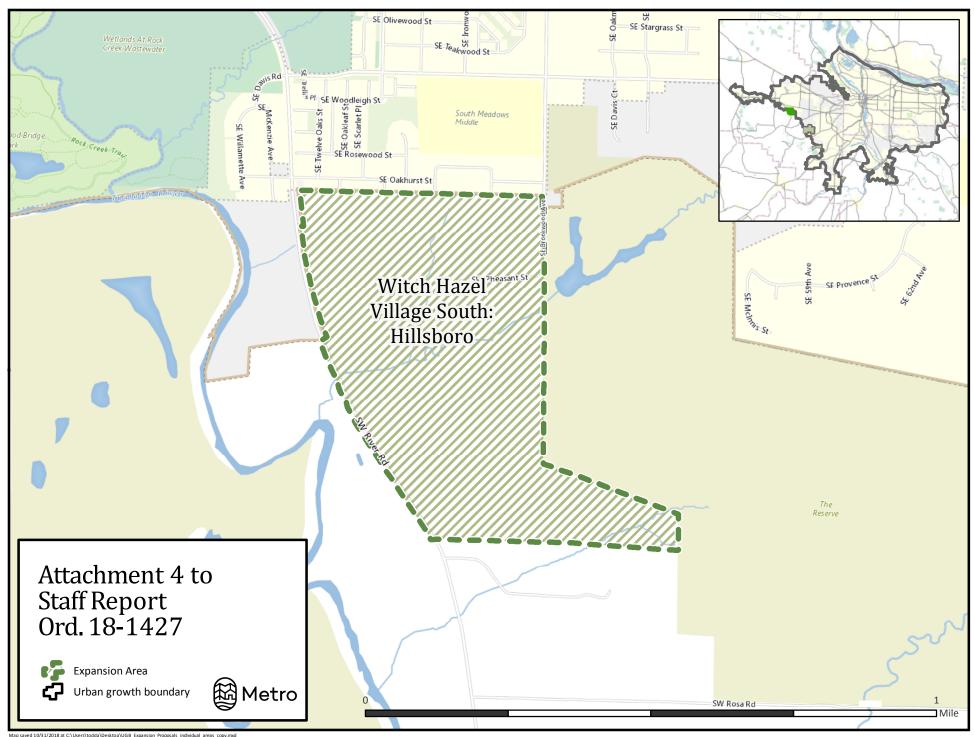
Attachment 6: Washington County Department of Health and Human Services letter

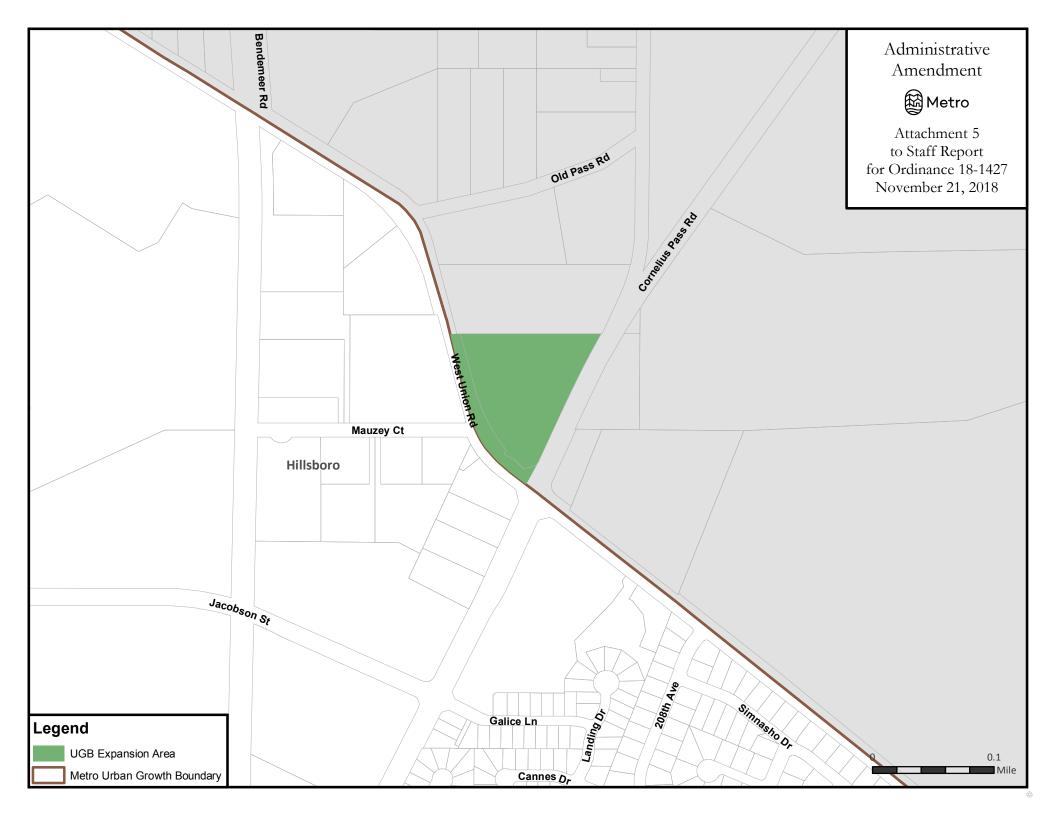
Attachment 7: DEQ Existing System Evaluation Report













WASHINGTON COUNTY OREGON

July 5, 2018

Brannon Lamp Aqua Resource Design & Consulting 3439 NE Sandy Blvd. #165 Portland, OR 97232

RE: Onsite septic system located at 6585 NW Cornelius Pass Road; Hillsboro (1N2-14D-400.)

Mr. Lamp:

This letter is a follow-up to our conversation regarding the status of the above referenced onsite septic system. This system was installed in February 1976 and consists of a 1,000 gallon concrete septic tank, a pump tank and 440' of serial distribution drainline. This system has a design capacity of approximately 500 gallons per day (gpd).

This system is currently failing (i.e. untreated or partially treated wastewater is surfacing over a portion of the drainfield.) Such a discharge constitutes a public health hazard as defined in OAR 340-071-0100(117.) This surfacing wastewater also constitutes a violation of the "Onsite Wastewater Treatment System Rules" (see OAR 340-071-0130(3)), and must be addressed in a timely manner.

OAR 340-071-0160 requires connection to sanitary sewer if the property lies within 300' of a sanitary sewer line if it is determined to be legally and physically available. It is my understanding that connecting this property to sanitary sewer will require annexation into the City of Hillsboro. The requirement of annexation would deem sanitary sewer connection to be considered "not legally available."

However, there are factors that make connection to sanitary sewer the best, and perhaps the only viable option for wastewater disposal for this property. The first and most important is that the only area available for the installation of a replacement drainfield has been previously evaluated by this department in 1975 and was found to be unsuitable for the installation of an onsite septic system. This area also has had fill placed over it through the years, thus making the area unusable for the placement of a new drainfield. The remainder of this property is covered by buildings and paved and gravel parking and driving areas. There is virtually no area on this parcel large enough to accommodate a new onsite septic system to serve the multiple businesses located on this property that will meet the requirements of Oregon Administrative Rules Chapter 340, Division 071 and 073.

I hereby support the annexation of this property into the City of Hillsboro and connection to sanitary sewer.

If you have any questions or concerns, please contact me.

Sincerely,

Larry Fenster

Senior Environmental Health Specialist



Existing System Evaluation Report for Onsite Wastewater Systems

State of Oregon Department of Environmental Quality

Onsite Program 165 East Seventh Ave, Suite 100 Eugene, OR 97401

Please answer the following questions completely. Do not leave any blank responses. Write unknown if unknown. Refer to Oregon Administrative Rule 340-071-0155 for more information, and please visit:http://www.oregon.gov/deq/Residential/Pages/Septic-Smart.aspx

Septic System Owner-Provided Information:	
Property Owner(s)(Sellers): Keith & Robin Gordon	Telephone: 503-830-5226
Site Address: 6585 NW Cornelius Pass Rd.	City: Hillsboro Zip Code: 97124
County: Washington Lot Size: 4.88 T 1N, R 2W, Sec. 14D, Tax Lo	Acres/Square Feet (circle units)
Legal Description.	
Age of wastewater treatment system (years) Is then	re a service contract for system components?
Date the septic tank was last pumped 8-11-17 (please att	ach receipt if available)
Number of people occupying dwelling If uno	ccupied, for how long has it been vacant?
Was this section completed by the evaluator because owner	or agent was upavailable?
The above information is true and to the best of my know	vledge.
10-04-2017	Pros July M
Date (MM/DD/YYYY)	Signature of Owner, or agent if present
Name of person performing evaluation (please print):	rannon Lamp, REHS
Certification: Installer Maintenance Provider National Association of Wastewater Technicians Other: DEQ approved in writing (please describe) RM3, EH-S 804519	 □ Professional Engineer ☑ Environmental Health Specialist □ Waste Water Specialist
Business name Aqua Resource	Email brannon@aqua-resource.com
Business address 3439 NE Sandy Blvd. #165 Port	
Date of Evaluation: 09/27/2017	
I hereby certify, by my signature, that I meet all of the qu	
system evaluations in the state of Oregon pursuant to OA	AR 340-071-0155.
10/04/2017	Si to Soulis de Susan Francisco
Date (MM/DD/YYYY)	Signature of Qualified Septic System Evaluator

1.	General	System	Informa	ation
	O CHICK CL	D, Decili	AIII OI III	

The Existing System Evaluation Report form contains 8 pages. Some of the questions on this form may not pertain to the system being evaluated, as there are many system designs. If you (the septic system evaluator) are unable to answer any of the questions on this form please indicate, in writing, why this information was not available at the time the evaluation was completed.

•	The existing septic system consists of (check all that apply):	
	✓ Septic Tank ☐ Cesspool ✓ Dosing Tank ☐ Disposal Trenches/ Leach Lines ☐ Multi-compartment Tank ☐ Capping Fill ☐ Seepage Bed ☐ Sand Filter ☐ Other ☐ Other	
a so	te: Cesspools may be used only to serve existing sewage loads and if failing only be replaced with eepage pit system on lots that are too small to accommodate a standard system or other alternative site system. ere is a permit for the septic system ✓ Yes ☐ No ☐ Unknown	
•	Permit Number(s) 5705	
•	Year original septic system installed: 1976 (YYYY) No record of installation date	
•	Dates of subsequent repairs or alterations:(YYYY)	
•	All plumbing fixtures are connected to the septic system ☐Yes ☐No ✔Unknown	
	If you answered "No" or "unknown," please describe below: It is presumed all fixtures and buildings are connected, but not confirmed.	
•	Additional Comments: 1000 gal. Septic Tank South of drainfield has reportedly been removed or decommissioned with re-routed to the North Septic Tank.	
2.	Overall Septic System Status	
•	Discharge of sewage to the ground surface ☐Yes ☐No ✔None observed	
•	Discharge of sewage to surface waters ☐ Yes ☐ No ✔ None observed	
•	Sewage backup into plumbing fixtures ☐Yes ☐No ✔Unknown	
•	Additional Comments:	
3.	Septic tank	
	order to fully describe the condition of the tank, the septic tank may need to be pumped. Please licate below if the septic system tank was pumped during the course of <i>this</i> evaluation. Septic tank was pumped during the course of <i>this</i> evaluation Yes No	
•	If the septic tank was NOT pumped during the course of <i>this</i> evaluation, please explain (e.g. septic system owner declined to have the tank pumped etc):	

The Septic Tank was pumped on 8/11/17, roughly 2 months prior to inspection. Receipt attached. • The septic tank material is: Concrete Steel Plastic Fiberglass Other (explain) Unknown • Is the septic tank accessible? ✓ Yes ☐ No Septic tank volume in gallons 1000 Tank volume determined by: Check all that apply, add comments below as needed Permit Records Measured Stamped on Tank Other Septic tank risers are at ground level Yes No ~3' above ground sfc. Tank appears to be free from defects, leaking and signs of deterioration Yes If you answered "No," please describe the condition of the septic tank below. For example, evidence of gas corrosion, cracks, leaks, etc. Tank appears to be at normal operating level, but some concrete corrosion observed. Septic tank lid(s) is intact ✓ Yes ☐ No riser lid only Septic tank baffles are intact: Inlet Yes No Outlet Yes No not visible • Baffle material - Inlet Plastic Concrete Metal Outlet Plastic Concrete Metal Effluent filter is present Yes No • Effluent filter is free of debris Yes No Not Applicable • Liquid level in tank relative to invert of outlet At Above Below If above or below invert outlet, please explain: Scum layer ⁵ Sludge layer ⁴ (inches) (inches) Scum and Sludge layer more than 35% of the *total* tank volume ☐ Yes ✓ No Indicate where sludge measured from: ✓ Inlet ☐ Middle ☐ Outlet Additional Comments: 4. Dosing tank / Pump Basin Dosing tanks use a pump to send effluent to a treatment unit or a soil absorption field. The septic system has a dosing tank **✓** Yes □No

• At the time of this evaluation the power was on to test the pump(s): Yes No

(If "No," skip the rest of section 4)

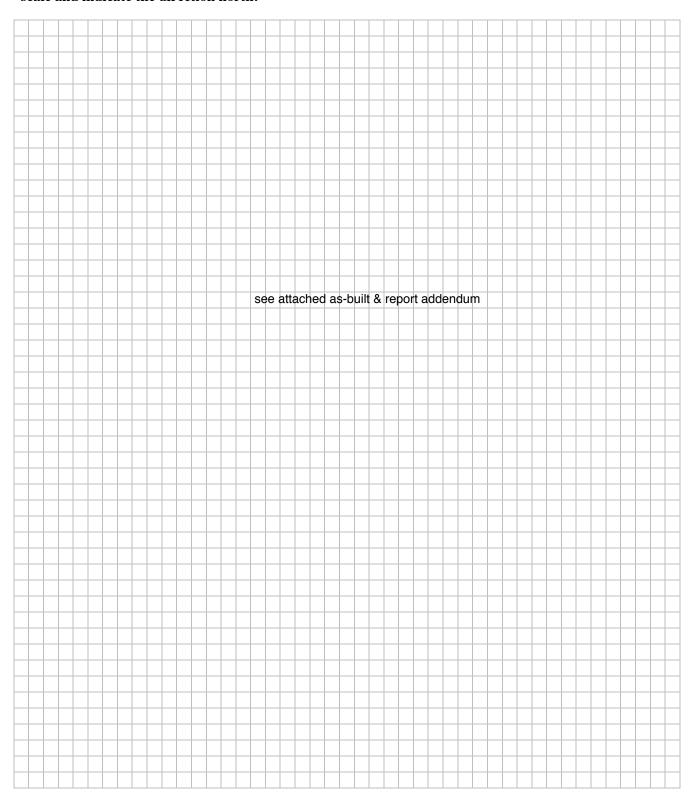
•	Dosing tank capacity unknown (gallons)
•	Tank volume determined by: Check all that apply, add comments below as needed
	☐ Permit Records ☐ Measured ☐ Stamped on Tank ☐ Other
•	Dosing tank material
•	Dosing tank appears to be watertight and in good condition Yes No
•	Dosing tank lid is intact Yes No
•	Electrical components are sealed and watertight Yes No
•	Pump/ siphon is functional Yes No
•	Type of Pump Demand dose Time dose
•	Pump control mechanism is functional (floats, pressure transducer) Yes No
•	There is a high water alarm Yes No
•	The high water alarm (audible and visual) is working Yes No Not Applicable
•	Type of screen
•	Screen is clean and free of debris Yes No - Screen cleaned for this evaluation Yes No
•	Scum/ sludge present in Dosing tank Yes No
•	Scum layer (inches) Sludge layer (inches)
•	Additional Comments: Could not inspect Dosing Tank due to inability to remove heavy 36" diameter concrete riser lid.
5.	Soil absorption system
	The soil absorption system is a set of trenches that receives effluent from the septic tank and
	filters the effluent before it enters the groundwater.
•	The septic system has a soil absorption system ∠ Yes □No □Unknown
•	Was the soil absorption system part of the evaluation? ✓ Yes ☐ No ☐ See note below
	If the soil absorption system was not evaluated, please explain below (for example unable to
	locate, client did not authorize this part of the evaluation):
•	Absorption distribution
•	Absorption lines construction material:
/	Gravel and pipe
•	Absorption distribution unit(s): ✓dropbox ☐hydrosplitter ☐equal distribution box
/	Intact Damaged N/A
•	Absorption distribution unit(s) are free of debris or solids ✓ Yes ☐ No ☐ N/A

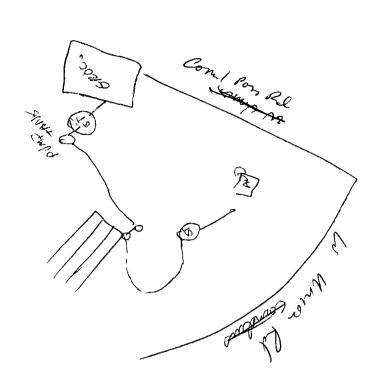
•	Locate all drain lines in soil absorption system Yes No	
	Total length of drain lines 440 (ft)	
	Lengths determined by ☐Physically uncovering portions of system/probing ✔Written records	
	☐Fish tape ☐Electronic locator ☐ camera	
•	Absorption area appears to be free from roads, vehicular traffic, structures, livestock, deep-rooted	
	plants etc.	
	□Yes ✓No	
	If you answered "No," please describe below: Drop box and a portion of lowest line (#4) appears to be located under asphalt parking lot.	
•	Absorption area appears to be free from surface water runoff and down spouts Yes No	
•	Evidence of ponding in absorption area or distribution unit(s) ✓ Yes □No	
•	The soil absorption system replacement area assigned in the permit record appears to be intact:	
	☐ Yes ☐ No 🗹 Replacement area not identified in permit record	
	If you answered "No," please explain below:	
•	Additional Comments: There is no apparent potential replacement are that is not currently encumbered by asphalt or s There is a groundwater interceptor associated with the building due South of the drainfield that the ground surface upslope of the active drainfield.	
6.	Sand Filter System There are different sand filter system designs used in Oregon. Not every sand filter system will	
•	contain all of the components mentioned below, e.g. pumps. The owner of a sand filter system permitted on or after January 2, 2014 <i>must</i> maintain an annual service contract with a certified Maintenance Provider. Maintenance records should be available from the system owner, or the contracted Maintenance Provider. Please attach copies of the previous two years of maintenance records to this evaluation form. The septic system has a sand filter Yes No	
	(If "No," skip the rest of section 6)	
•	Type of sand filter	
	☐ Intermittent ☐ Recirculating ☐ Bottomless	
•	Sand filter container appears free from defects, leaks and signs of deterioration: \(\subseteq \text{Ves} \) \(\subseteq \text{No.} \)	

piants etc	Sand filter unit appears to be free from roads, vehicular traffic, structures, livestock, deep-rooplants etc.		
∐Yes [
lf you an	swered "No," please describe below:		
Sand filt	er appears to be free from surface water runoff and down spouts Yes No		
Evidence	e of ponding in/ on sand filter media surface Yes No		
Surface a	access to manifold and valves Yes No		
Monitori	ing ports are present Yes No		
Lateral li	ines flushed and equal distribution verified Yes No		
The sand	I filter has a pump Yes No		
(If "No",	, skip the rest of section 6)		
Pump va	ult appears to be watertight and in good condition Yes No N/A		
Pump is	functional Yes No		
Pump co	ntrol mechanism is functional (floats, pressure transducer) Yes No		
High wa	ter alarm in pump vault (audible and visual) is working Yes No		
Pump ele	ectrical components are sealed and watertight Yes No		
Addition	al Comments:		
The own Maintena contracte	tive Treatment Technology System her of an ATT system <i>must</i> maintain an annual service contract with a certified ance Provider. Maintenance records should be available from the system owner, or the ed Maintenance Provider. Please attach copies of the previous two years of ance records to this evaluation form.		
or the DI	ome ATT systems may have a WPCF permit. Please contact the local Health Department EQ to obtain a copy of the WPCF permit. ic system has an Alternative Treatment Technology (ATT) Yes No		
	skip the rest of section 7)		
(If "No,"			

•	Previous two years of maintenance records are available Yes No If you answered "No," please explain below:
•	Previous two years of maintenance records are attached to this form Yes No If you answered "No," please explain below:
•	Additional Comments:
8. • •	Please attach a copy of the following items to this form. Contact the DEQ, or the local Health Department to locate these items. The septic system permit(s) to this form, if available The as-built drawing(s) to this form, if available The Certificate of Satisfactory Completion to this form, if available Additional Comments:
9. •	Provide a Site Plan Please provide a sketch of the complete system (show only system components that were evaluated) on page 8 of this form, if a copy of the original "as-built" drawing is <i>not</i> available. Please provide a sketch of the complete system on page 8 of this form if the original "as-built" drawing is <i>not</i> accurate or representative of the existing system. If the original "as-built" drawing is available for copy, and the original appears to be accurate and representative of the existing system, write "see attached as-built" on page 8 of this form, redrawing the system is unnecessary. Additional Comments:
10.	Disclaimer: This evaluation report describes the septic system as it exists on the date of evaluation and to the extent that components and operation of the system are reasonably observable. DEQ recognizes that this evaluation report does not provide assurance or any warranty that the system will operate properly in the future.
	I hereby certify, by my signature, that the above information and the plot plan on the next page of this form are accurate and true to the best of my knowledge.
10/04/	Date Signature of Qualified Septic System Evaluator

Provide a Site Plan in the space below: Show the actual or best estimate measurements of components that were confirmed during this evaluation; septic tank, soil absorption system, property lines (if known), easements (if known), existing structures, driveways, and water supply (water lines and wells). **Draw to scale and indicate the direction north.**





WASHINGTON COUNTY DEPARTMENT OF PUBLIC HEALT	" ~~~
SEWAGE DISPOSAL REPORT 1N2-140-400	Receipt #
ADDRESS RI 1 80x 216 WEST VISION 1201	
Subdivision Lot Block Builder_	
Owner <u>INSST UNION CO</u> S T Installer <u>NUSSBAUMEW</u>	
SEPTIC TANK	
Distance from well <u>NA</u> ft Metal Concrete X Liquid capacity (2) 10	gallons
Residential Number of bedrooms Distribution Box	
Commercial Number of employees 10 Disposal Field	DREP BOX DESIGN
Distance from well NA ft from foundation 75 ft clearance between drainfield and propert	y line at nearest point out
Distance between lines 10 ft Trench width 24 in No of lines 7 Length each line 3/22 to	Total long.
Total trench area X00 sq ft Filter material OR Depth under the 2011	
Remarks Reports <u>APPROVAL FOR BACKFILL OF DRAINFIELD AND PROPERTY PUMP TANK, SEAL, AND VALUE</u> PROVISION REINSPECT PROVISION REINSPEC	TION
- USION DEINS	
proving	
Dublic Health Sonitarian Public State Date Dat	e /-23-76 vo 0152
Public Health Sanitarian Date 10/67 1500 Date 10/67 1500	10 $^{-23}$ $^{-23}$ $^{-23}$ $^{-23}$ $^{-23}$



Aqua Resource Design and Consulting, LLC 3439 NE Sandy Blvd. #165 , Portland, OR 97232 503-922-2149 (OR) 360-326-8489 (WA)

October 13, 2017

Addendum to Existing System Evaluation Report for Onsite Wastewater Systems dated 10/04/2017 for:

Owner: Keith & Robin Gordon

Property: T 1N, R 2W, Sec. 14D, Tax Lot 400

While the Onsite Wastewater Treatment System's drainfield appeared to be functioning adequately at the time of inspection based on Drop Box and ground surface observations, there are several deficiencies and concerns to be noted regarding it's continued functionality:

- In 2016 and 2017, average daily water usage for the property ranged from roughly 900-1100 gallons per day, with little variation during potential irrigation months. Soils are mapped as Woodburn series and are therefore likely poorly drained and Group C texture. Therefore, it is unlikely the intended design flow for this system would have exceeded approximately 440 gallons per day, assuming a 1:1 loading rate of 150 linear feet per 150 gallons per day. The assumed design (peak) flow is apparently being exceeded by a factor of 2 or nearly 3 on a daily basis. Historic water use from around 2012 was about half what the current flows are. Current usage is likely not sustainable long term.
- On June 13, 2017, a reputable Certified Operation & Maintenance provider obtained a grab sample from the Dosing Tank and had it analyzed. Results as follows:
 - o Biochemical Oxygen Demand (BOD): >1203 mg/L
 - Total Suspended Solids (TSS): 260 mg/L
 - o Oil & Grease: 20 mg/L

The BOD & TSS results indicate characteristics of a waste strength far greater than residential. Also, since one of the two 1000 gallon Septic Tanks have reportedly been removed, primary treatment capacity has undoubtedly been decreased substantially. Continued loading of the drainfield with high strength wastes is likely unsustainable.

- The property owner reported ponding near the bottom (North) of the drainfield during the extremely wet Winter in 2016-2017. No investigation to determine whether that ponding contained effluent was conducted at the time, but should be considered in the event that the condition reappears.
- There does not appear to be any suitable area on the property for drainfield replacement. The only area unencumbered by buildings or parking to the North appears to have several feet of fill placed on it, presumably from the property's development decades ago, which makes it's feasibility unlikely. Additionally, while sparse, the original Site Evaluation records indicated that test pits prepared in that general area were denied. Connection to sewer may be the only viable solution for the property in the event of system failure.

