

June 7, 2018

Mike Rypien  
221 W 5350 S  
Ogden, UT 84405

RE: Weber-Morgan Health Department Onsite Wastewater Review  
Approximately 627 E Ogden Canyon, Ogden UT  
Parcel #20-032-0002  
Soil log 1367

Gentlemen:

A formal review of the property and the proposed future single family dwelling has been completed by the Weber-Morgan Health Department with respect to an onsite wastewater treatment system as mean of wastewater disposal for parcel# 20-032-0002, located at **approximately 627 E Ogden Canyon**. The following letter details the outcome of the work completed on the property by our staff as well as the additional information required before issuance of a letter of feasibility for the property can be given.

Items completed or found to be capable of meeting state and local code:

- 1) The lot must meet the Weber-Morgan Health Department Onsite Wastewater Treatment System Regulation Table 1.1 (g) which requires that a “Minimum lot size shall consist of 20,000 square feet of contiguous buildable area with a slope less than 25 percent”. At current Mr. Rypien has provided documentation to our office showing that the lot does meet that requirement. It has also been stated that multiple lot lines may need to be vacated to accomplish the minimum requirement. Before an onsite wastewater treatment permit would be issued the lot must be shown to meet this requirement, verification of such may be requested form the planning department, other reviewing agency, or Mr Rypien.
- 2) Soil work was completed in 2001. The soils were found to be a fast moving soils classified in the Utah Administrative Code as a Soil Type 1 or 2. At this time there are sufficient pretreatment options permissible in state and local code to allow for the installation of an onsite wastewater treatment system to be installed on the property with respect to soil type and effluent treatment.
- 3) When this property was last reviewed by our office the minimum separation distance to open water, including but not limited to the Ogden River, was 100 feet to the absorption field of any onsite wastewater treatment system. This was likely a major consideration in the determination that the property was not feasible at that time for the installation of an onsite wastewater treatment system. Since that review additional pretreatment option such as Packed Bed Media systems have been approved for installation in the state of Utah. Due to the pretreatment capability of the Packed Bed Media system the minimum separation between the absorption field following this system type and water source has been reduce to 50 feet.

- 4) Water table has been completed on this property, and while the maximum water table depth document in the 2002 is not believe to be representative of the maximum water table in that area our office does believes that a system could be design that would meet the minimum separation distance to ground water established in state and local code. The water table in the area is believed to be driven by the fluctuation of the Ogden River. Historic river water level data is available through the USGS, which has a stream flow gauge installed on the Ogden River near the ATK reception center

Before a letter of feasibility or an onsite wastewater permit can be issued for the property, our office is requesting that the property owner demonstrate that an onsite wastewater treatment system can be design to support a residence. A suitable design application rate based on the documented percolation rate of 5 minutes per inch is 0.9 gpd/sq ft. The system shall be designed as an At-grade disposal system with a maximum trench depth of 0 inches or a Packed Bed Media treatment system followed by a conventional disposal system with a maximum trench depth of 12 inches. The engineered plan is to be designed by a Level 3, Onsite Certified individual through the State of Utah.

Issues requiring additional engineering support, before feasibility may be issued.

- 1) Photos taken in May 2011 show a possible spring located at the eastern portion of the property at the base of the hill slope. A photo has been included as an aid for the onsite wastewater designer. The spring and or any portion of the property that may become flooding due to the spring runoff must be shown in an engineered septic design to meet the minimum separating distance as established in state and local code and or an engineered plan must be submitted for review showing how the spring is to be channelized and or diverted.
- 2) Photos taken in May 2011 show an area of accumulated runoff resulting in the flooding of a portion of the property. A photo has been included as an aid for the onsite wastewater designer. The area of runoff accumulation must be shown in a engineered septic design to meet the minimum separating distance as established in state and local code and or an engineered plan must be submitted for review showing how the runoff will be diverted from the property and thus eliminate the issue.
- 3) A storm drain is located adjacent to the property and must be shown to not be influence by possible effluent if an onsite wastewater treatment system is permitted. This may be based on distance, elevation, and or construction of the storm drain box and infrastructure i.e. is water tight in construction.
- 4) Current Utah State Administrative code R317-4 requires that the property be sufficiently sized to have both an original and replacement absorption field shown on the engineered plan. The replacement area like the original is required to be maintained free of structures or other action that may be detrimental to the soil compaction. The Weber-Morgan Health Department Onsite Treatment System Regulation section 4.29 outlines these requirements and clarifies that the minimum separation distance be maintained between the original and replacement drainfield  
4.29 Amend Section 6.14.B.1 to Read:  
6.14.B.1 Replacement area for Absorption Systems. Adequate and suitable land shall be reserved and kept free of permanent structures, traffic or adverse soil modification for 100 percent replacement of each absorption system. If approved by the regulatory authority, the area between standard trenches or deep wall trenches may be regarded as replacement area when trench separation distances required by R317-4-6 are maintained between original and replacement trenches.
- 5) A non permitted onsite wastewater system has been installed without the oversight or approval or our office. The depth of the system has been stated to be 48 inched below surface. This system due to the depth cannot be deemed permissible by our office. The Utah Administrative Code R317-4 does not allow for a system to be installed in excavated soils and thus the area in

which the system was installed must be considered as unavailable for the installation of the future original or replacement system. Please ensure that the area in which the system (chamber trenches) was installed is shown on the engineered onsite wastewater plan submitted for review to our office as this will be a review item and plans will not be approved that do not include this information.

- 6) Please also include the footprint of the future single family dwelling as close to the anticipated footprint as is possible as deviation from the footprint shown may negatively impact the property development.

The evaluation of this property was completed based on the culinary water to the home being supplied by an approved public water system. The development of a Non-Public Water System to would add additional requirements. Those required include but may not be limited to:

- 1) An increased minimum lot size to 1.0 acres. This does not forgo the "Minimum lot size shall consist of 20,000 square feet of contiguous buildable area with a slope less than 25 percent"
- 2) Where the culinary water supply is to be a nonpublic water system, the lot shall meet the minimum lot size requirements and be so shaped and sized to allow for a 100 foot radius protection zone to protect the well from concentrated sources of pollution and to provide an area outside the protection zone large enough to install the onsite wastewater treatment system and a 100 percent replacement area.
- 3) Any portion of the 100 foot radius protection zone not within the property boundaries would require a legal easement be signed by any property owner whose property the protection zone would impact.

Due to the complexity of the culinary water supply lines through Ogden Canyon, our office is also requesting a letter be provided from Ogden City Water Department stating that they will continue to provided culinary water to the property.

Please submit the requested information for review. Please call 801-399-7160 with any questions you may have on the project or on the specifics of this letter.

Sincerely,

Summer Day, LEHS III  
Environmental Health Division

Enclosure:

The lot line boundaries used as proof of the 20,000  
Photos of the possible spring location  
Photos of the possible run off  
Photos of the storm drain  
List of Level 3, Onsite Certified individual through the State of Utah