



November 6, 2023

Project: Ruby Resort
Subject: Wastewater System Demand

Reeve & Associates has prepared this letter to address the anticipated sewer flows for the proposed Ruby Resort development located at 10909 UT-39 in Huntsville City, Utah. The proposed site consists of 7 buildings each with 16 resort-type units as well as a 50-seat restaurant and on-site caretaker's home. Table #1 below provides the estimated daily wastewater flows per Utah R317-4 Table 3.

Table 1 – Proposed Wastewater Flows

Building Type	Count	# of Seats	Flow Per Unit/Seat* (gpd)	Flow (gpd)
Lodges	112	-	125	14000
Clubhouse/Restaurant	1	50	35	1750
Caretaker Housing	1	-	400	400
Public Restroom	4	-	400	1600

* Sewer flow demands as listed per Utah R317-4 Table 3 "Estimated Flow Rates of Wastewater"

Design Daily Wastewater Flow	17750 gpd
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The proposed wastewater flows fall within the state threshold for a Large Underground Wastewater Disposal System. No community systems are within near proximity to the site, with the Greenhill Country Estates drain field system located ~4,000' to the west along SR-39. This system is not designed with additional capacity or allowance for future connections.

An exhibit of the site layout with the proposed location for the septic field has been prepared and is included with this submittal. This exhibit includes the locations of the soil exploration and test pit locations. The percolation tests have been completed and a feasibility letter issued from the Weber-Morgan Health Department. This letter will be used for the sizing design of the system.

A separate document has been prepared to address the proposed water design which will be supplied by an on-site system. The South Fork Ogden River passes through the middle of the site, and utilities including sewer and water will need to cross the river. Septic flows will require a combination of gravity and low-pressure sewer pipe to convey flows to the absorption field location. The proposed septic field is located outside of the 100' river protection zone.

A search of the Utah DEQ protection zone maps places the project location within multiple protection zones. These include two zone 4 well protection zones for the campgrounds to the southwest, and a zone 1 protection zone for the Ogden City Water Wheeler Creek Intake

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Water System. Utah Geological Survey Special Study 165 addresses the groundwater quality, aquifers, and other environmental concerns in the valley. The final LUWDS design will comply with all Health Department and State requirements for the design planning and reporting.

If you have any questions, or we can be of further assistance, please let us know.

Sincerely,

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