

REESE GULCH - BOX CROSS RANCH

Water Availability Report

Prepared for:

John Slack

Prepared by:

Jeff Rosenlund, P.E.
16 W. 8th Street
Sheridan, WY 82801

May 28, 2017



Introduction

John Slack plans to develop a new lot on the south side of the Box Cross Ranch. He had inquired about the ability of SAWS to provide water service to this 80 acre lot. This report documents the ability of SAWS to provide water to this location.

Water Distribution System

This property is located on the north side of Parker Draw subdivision. The closest accessible SAWS infrastructure to this lot is located on N. Fork Drive. This information is on Figure 1.

Demands

Demand for this lot is based on one or two single family residences. A typical residence in the SAWS area has a peak day demand of around 1 gpm and peak instantaneous demand around 5 gpm. These demands are reduced by more than half if a secondary source of water is available for irrigation.

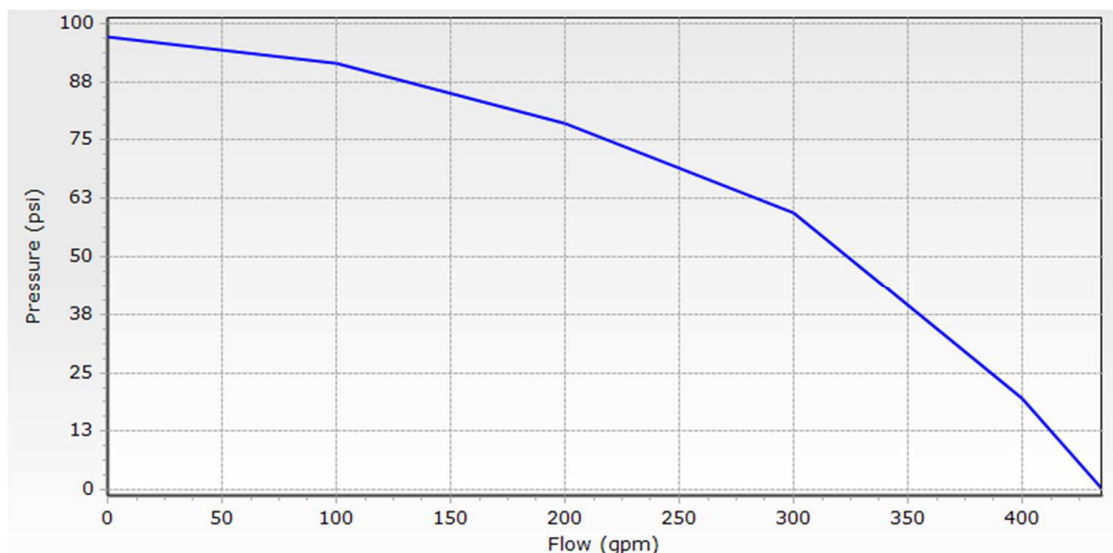
Design Capacity and Hydraulic Modeling

The Sheridan Water System Model maintained by DOWL was used to demonstrate the capacity available for this lot. Both building sites are around the same elevation (4340). The elevation of N. Fork Drive is 4284.

Static pressure at this location is 97 and 73 psi at both potential building sites.

The hydrant flow curve or water availability curve for the existing line at the end of N. Fork Dr. is shown in Figure 2.

Figure 2 – Hydrant Flow Curve – Water Availability at End of N. Fork Dr.

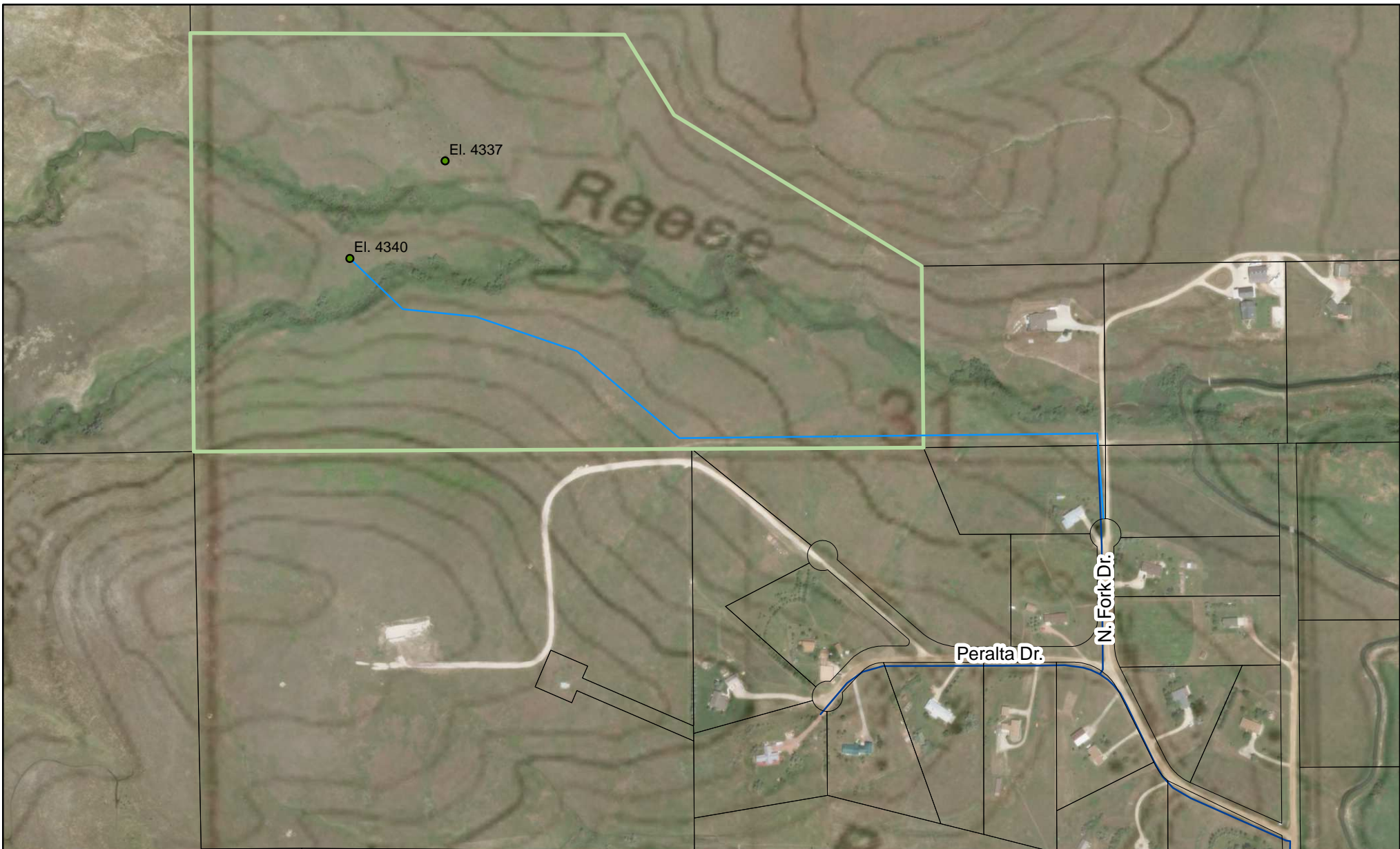


Pipe Size and Material

The distance to the building sites is around 3500 feet from N. Fork Drive. A 2-inch poly service line will give a residual pressure of around 68 psi, based on a water demand of 10 gpm.

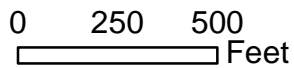
This same service line would provide 30 gpm at around 37 psi. However, if the anticipated demands are greater than 10 gpm, it is recommended that a larger service line be installed, to minimize pressure fluctuation at the building sites.

-End of Report-



Legend

- Possible Building Site
- New_Parcel
- Water Service - Proposed
- Existing Pipeline



Reese Gulch Property

Water Availability Study



May 28, 2018

Figure 1