



NEZPERCE SEWER REUSE SYSTEM

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Sponsored By: J-U-B ENGINEERS & Braxton Klas, EIT

Special thanks to: Erik R. Coats, P.E., Ph.D. & Richard J. Nielson, P.E., Ph.D.

SUSTAINABILITY

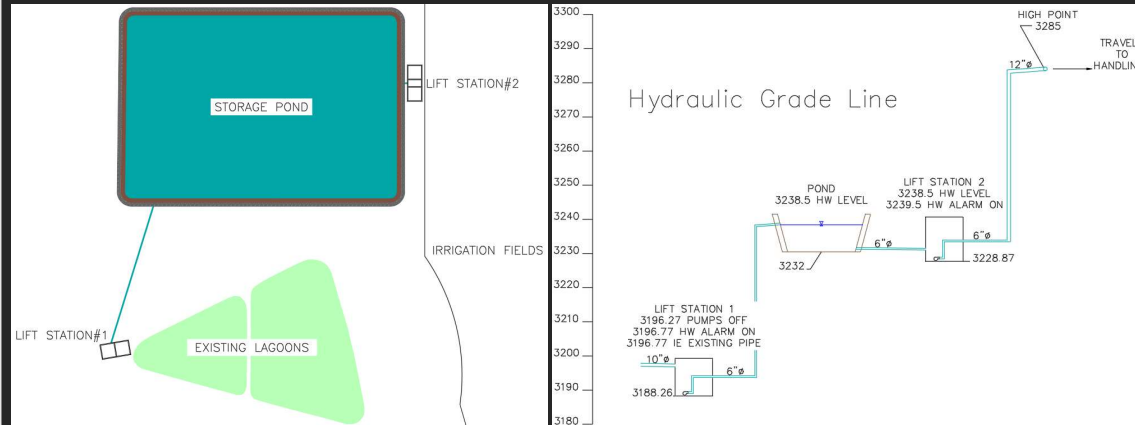


OBJECTIVE

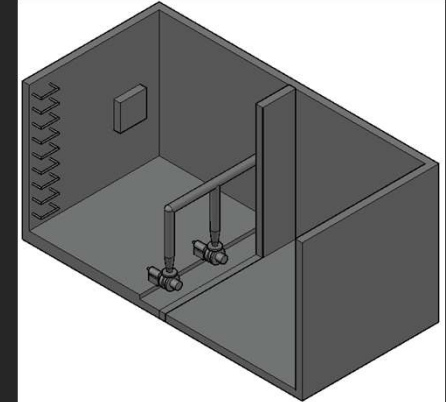


- City of Nezperce
- Previously Discharged Into Long Hollow Creek
- Designed Sewer Reuse System to Comply with Regulations
- Now Utilizes Effluent as Irrigation

SITE LAYOUT



LIFT STATION 1



- Ties into Existing 10-inch Effluent Pipe
- Average Influent Flow: 70 gpm
- Pumped Flow Rate: 200 gpm
- Total Dynamic Head: 50 ft
- 6-inch Ductile Iron Discharge Pipe

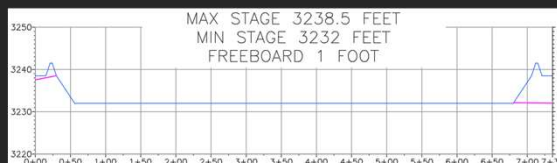
STORAGE POND

Pond Dimensions

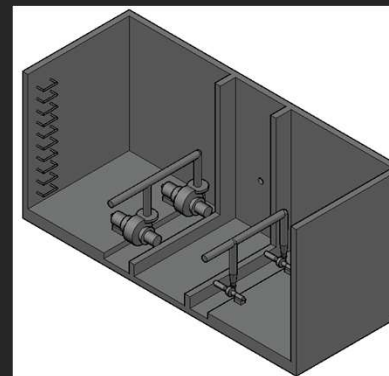
- Pond Volume: 4122000 ft³
- Length: 1000 ft
- Width: 670 ft
- Side Slopes 4:1
- Berm: 2:1 slopes, 3 ft flat top

Gravel Roads

- 8-inch Thick Gravel
- Length 3,500 ft
- Volume of Gravel: 1,300 yd³



LIFT STATION 2



- Gravity Fed Inflow From Storage Pond
- Pumped Flow Rate: 188-2273 gpm
- Total Dynamic Head: 60.6-131 ft
- 12-inch Ductile Iron Discharge Pipe
- Sprinkler Flow Rate: 11 gpm

IRRIGATION

- Area: 70.4 acres
- Depth: 1.85 ft/year
- Utilizes Effluent Phosphorus and Nitrogen Concentration

COST ESTIMATE

Mobilization	\$584,909
First Lift Station	\$157,140
Storage Pond	\$4,896,313
Second Lift Station	\$763,231
Labor of Design Team	\$35,075
Piping	\$435,180
Construction	\$1,286,800
Soft	\$1,389,744
Design Time	\$35,075
Total	\$9,145,620