

Proposed Gravity Supply Pipeline for Bonneville Washington Shore Lamprey Bypass System

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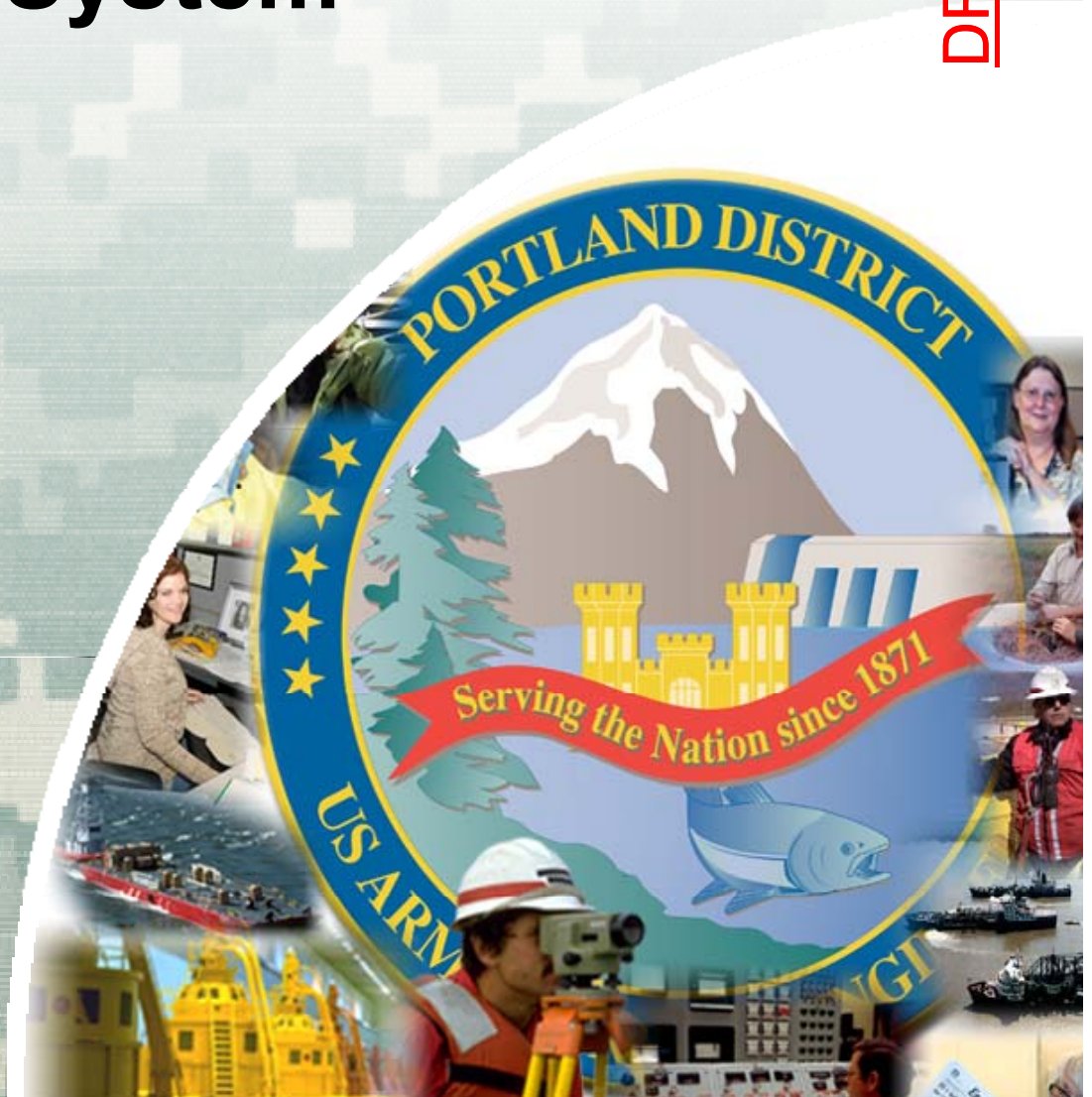
Fisheries Biologist

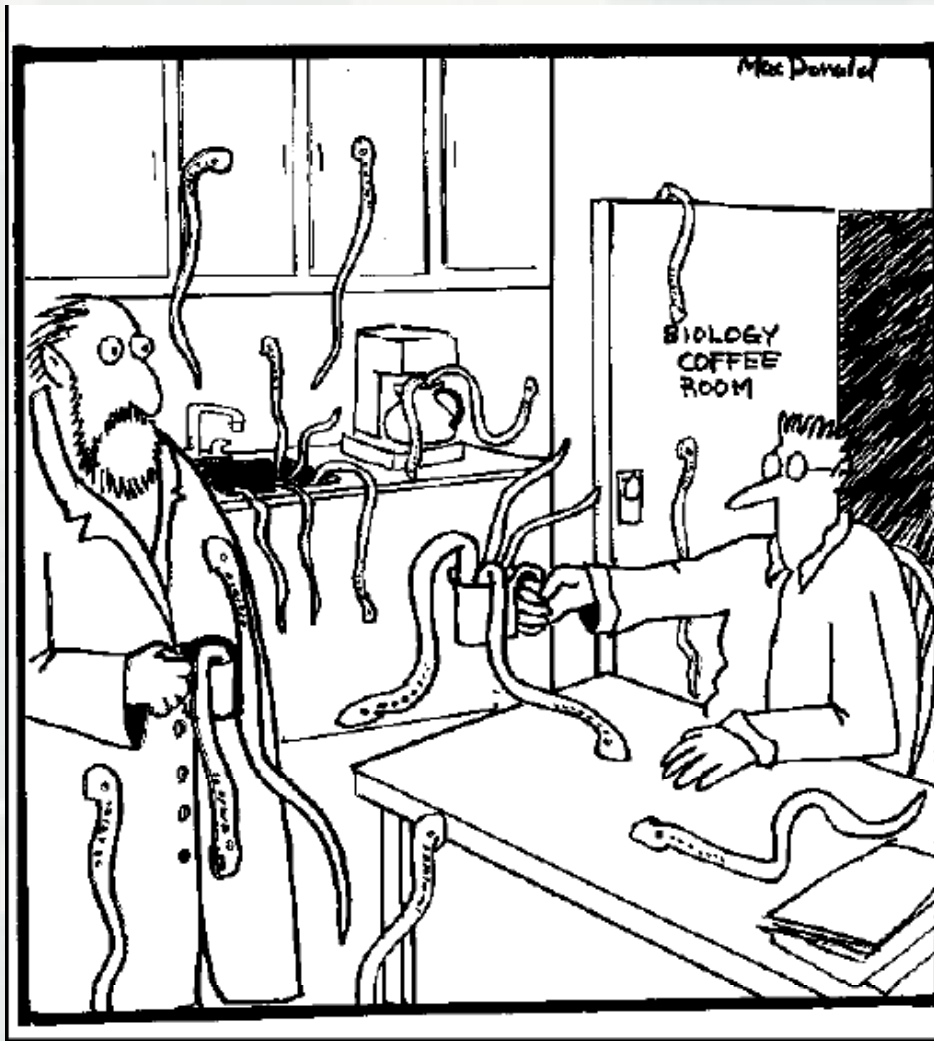
Portland District

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US Army Corps of Engineers
BUILDING STRONG[®]





Bonneville North Shore Lamprey Improvements



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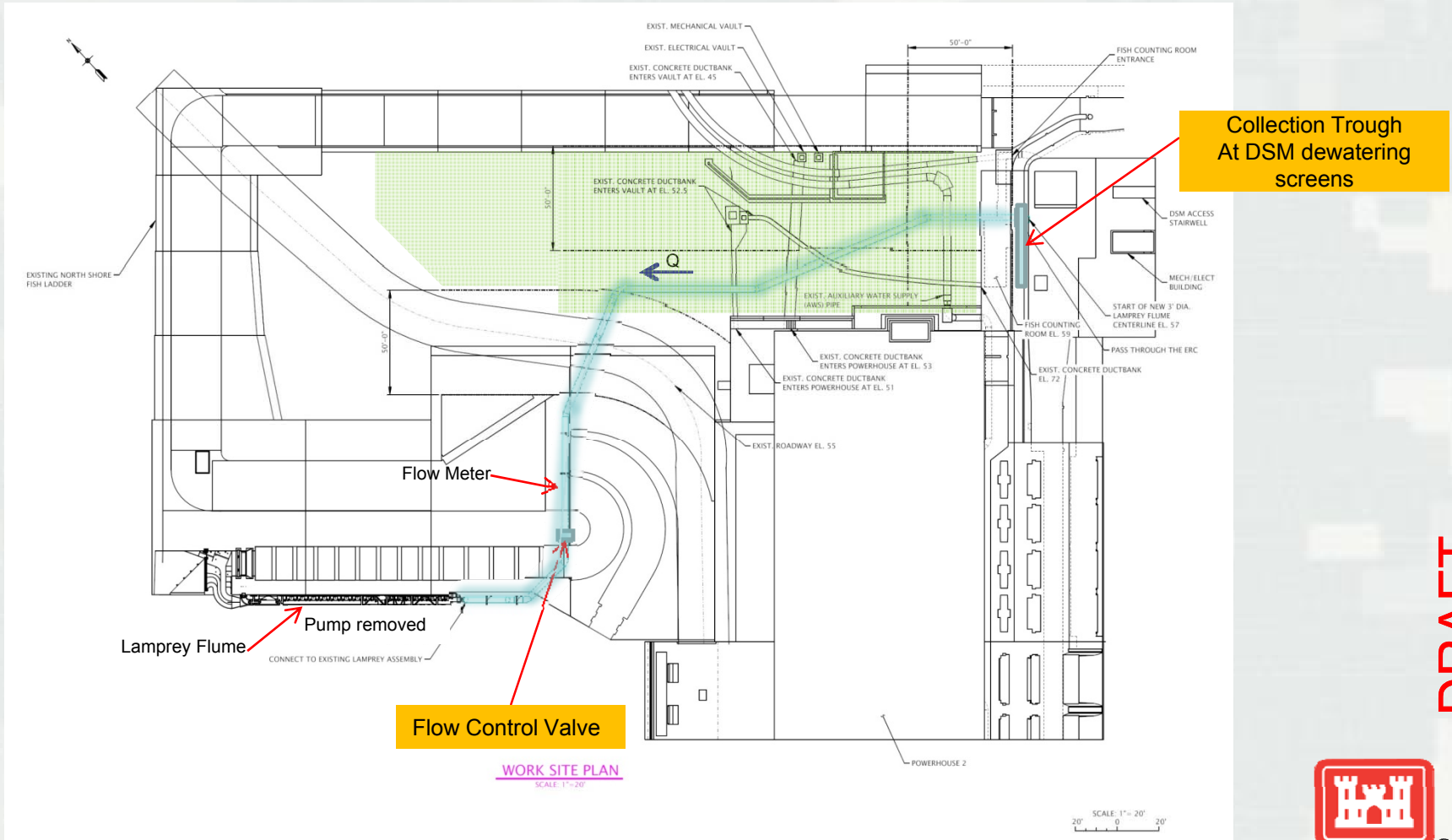
Overview of New Water Supply

- Gravity Pipeline
 - ▶ Length - ~ 380 feet
 - ▶ Diameter – 36 inch Dia. steel pipe
 - ▶ Flow Rate – up to 60 cfs
- Features
 - ▶ Collection Trough behind the DSM dewatering screens
 - ▶ Slide Gate closure at Collection Trough
 - ▶ Flow Control Valve and Flow Meter
 - ▶ PLC control of valve to desired flow rates

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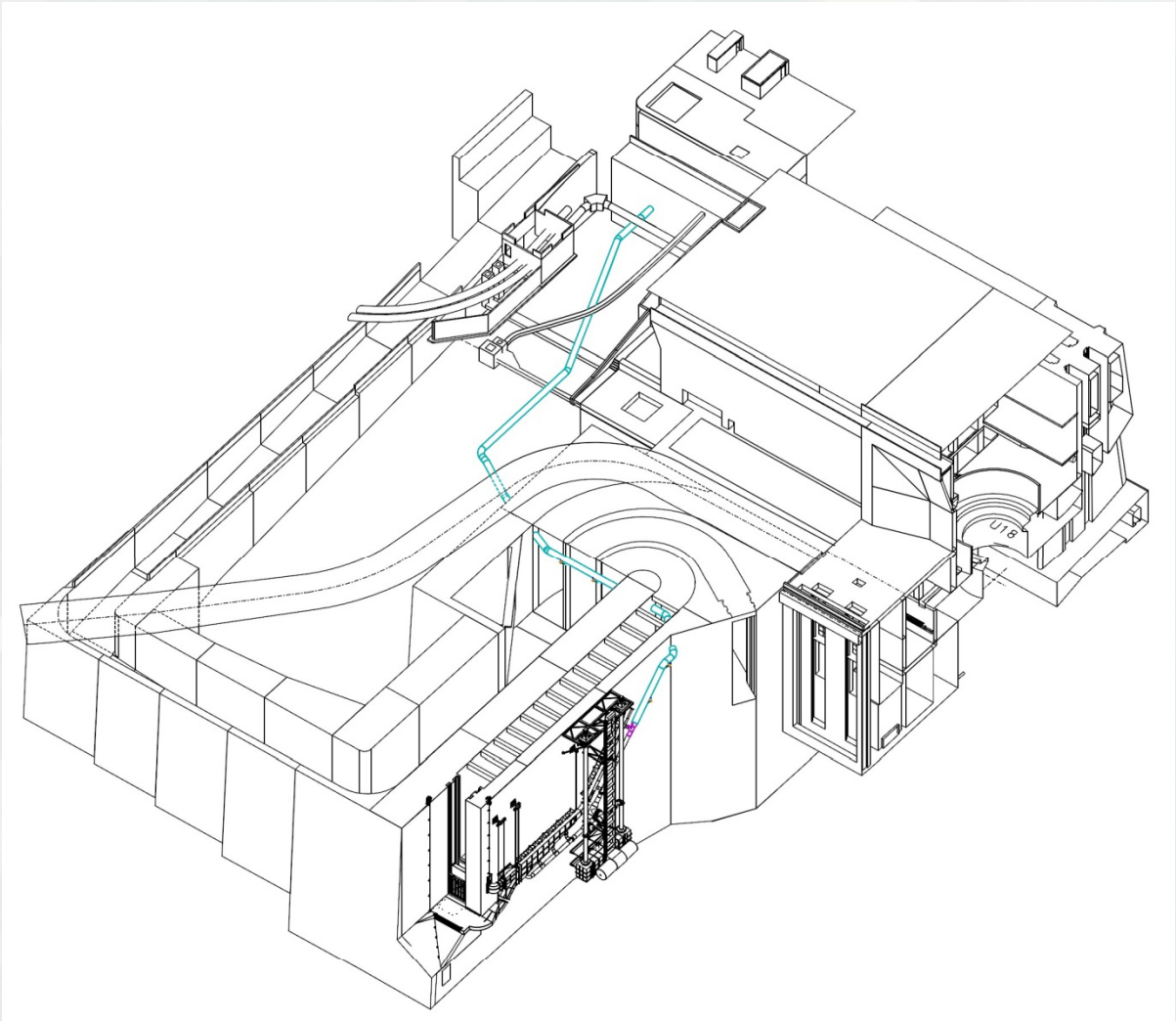
Proposed path for gravity supply Plan View



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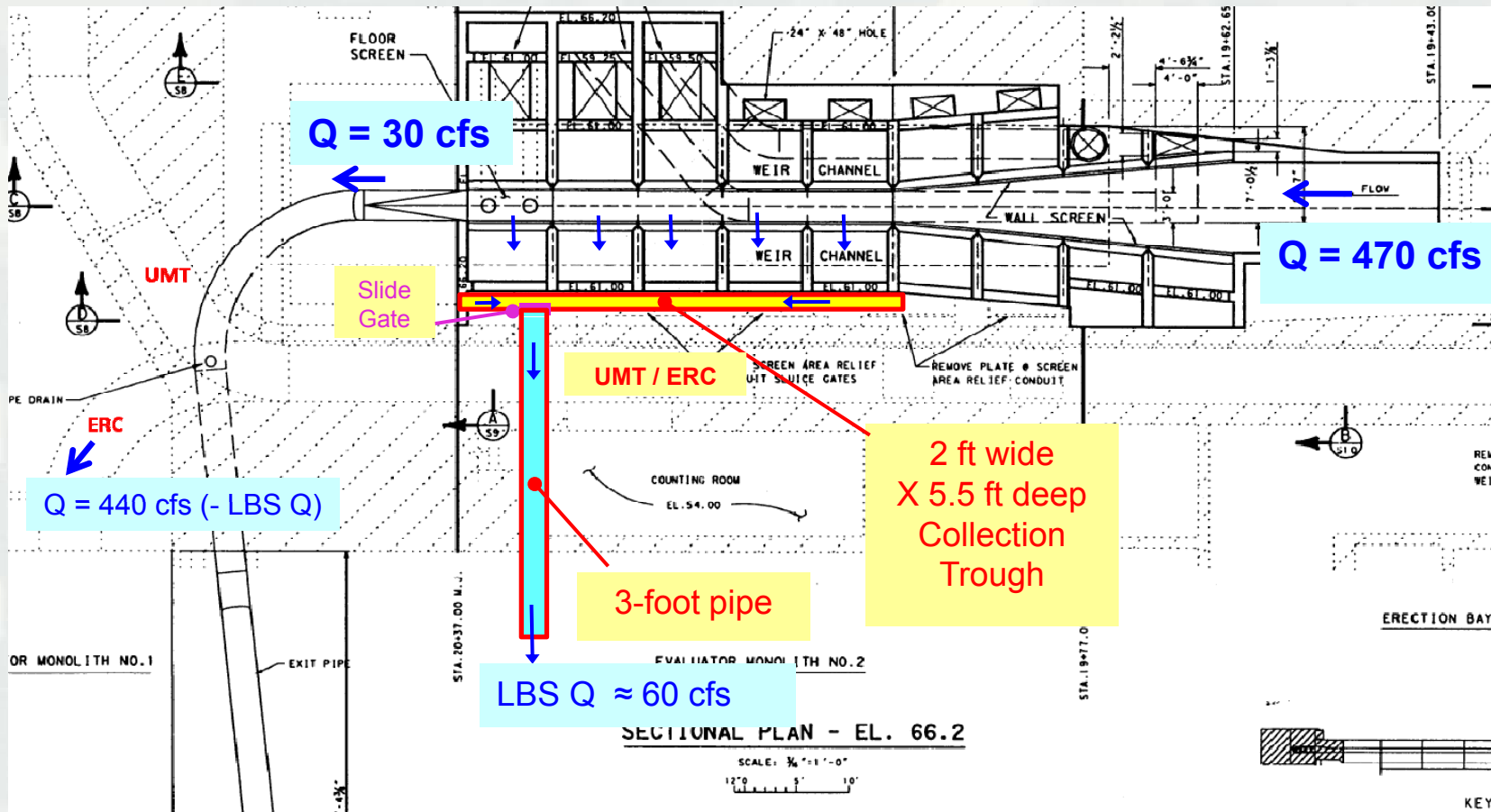
ISO View



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Plan view at the Collection Trough



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Water Supply

LBS Q \approx 60 cfs

3-foot pipe

UMT

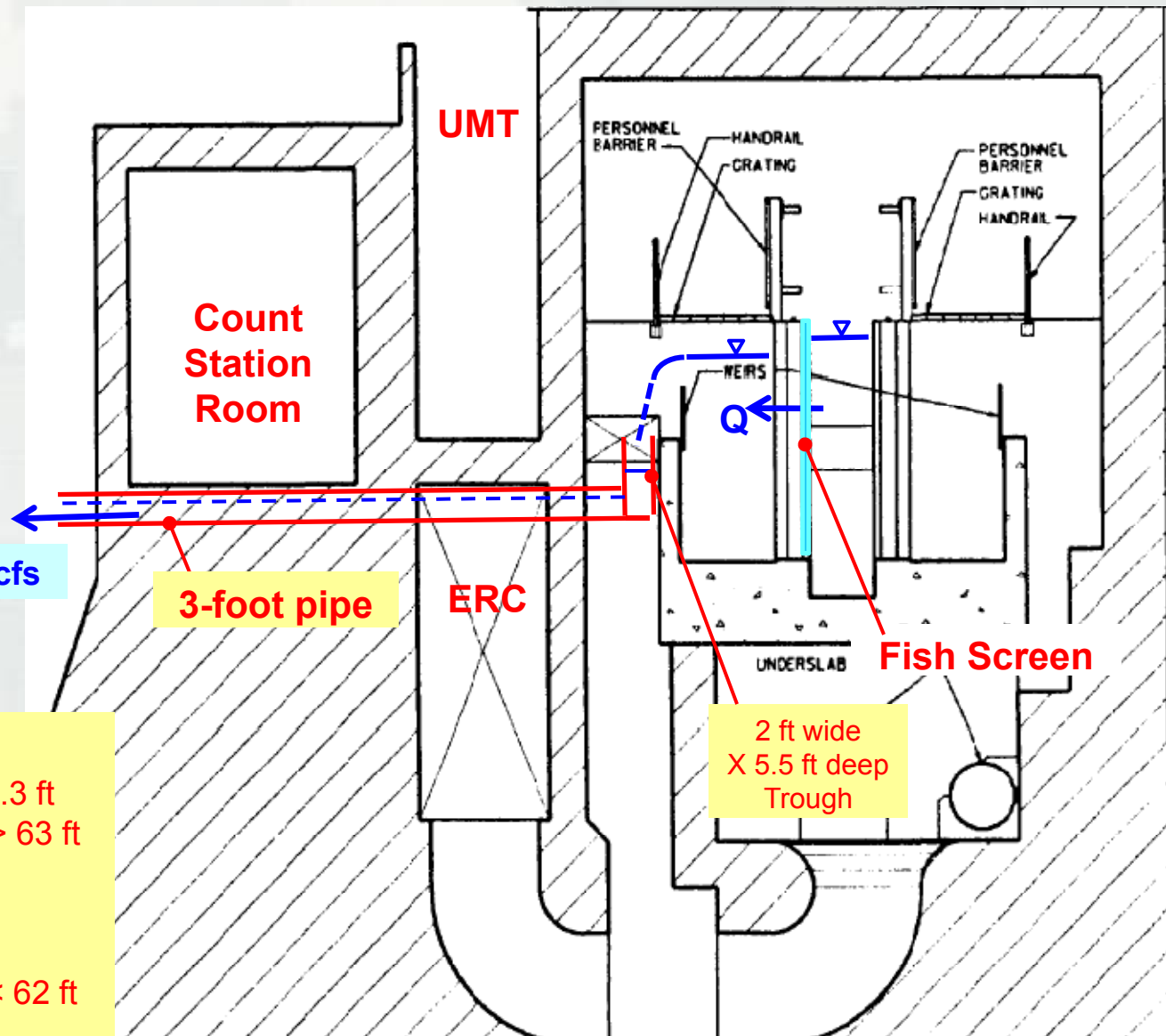
ERC

Fish Screen

2 ft wide
X 5.5 ft deep
Trough

Elevations:

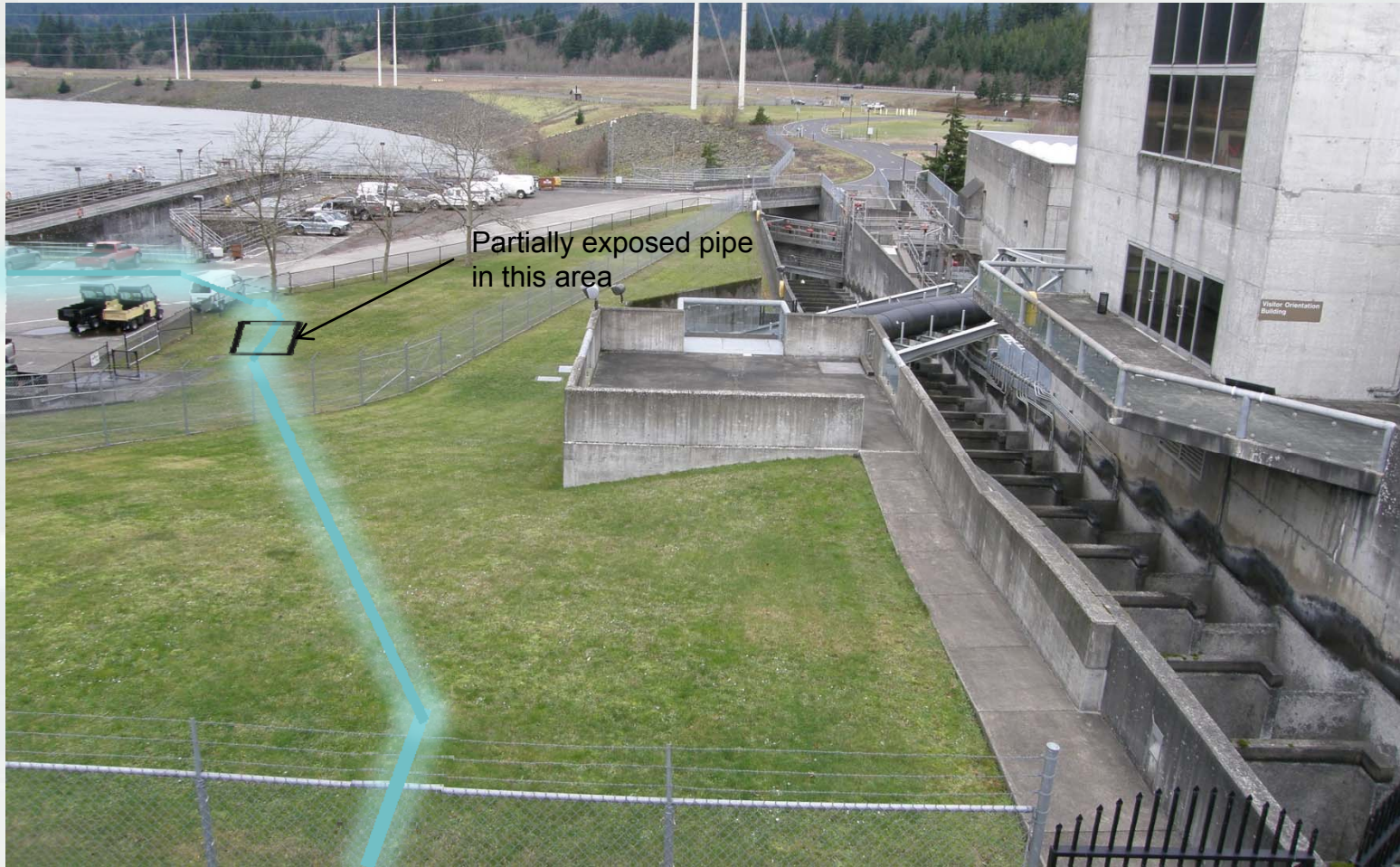
DSM water surface = 64.3 ft
Dewatering weir crests > 63 ft
Trough weir crest = 61 ft
Trough invert = 55.5 ft
Top of ERC = 59 ft
Overflow discharge EL < 62 ft
Slope of 3' pipe = 3%
Slide gate at pipe intake



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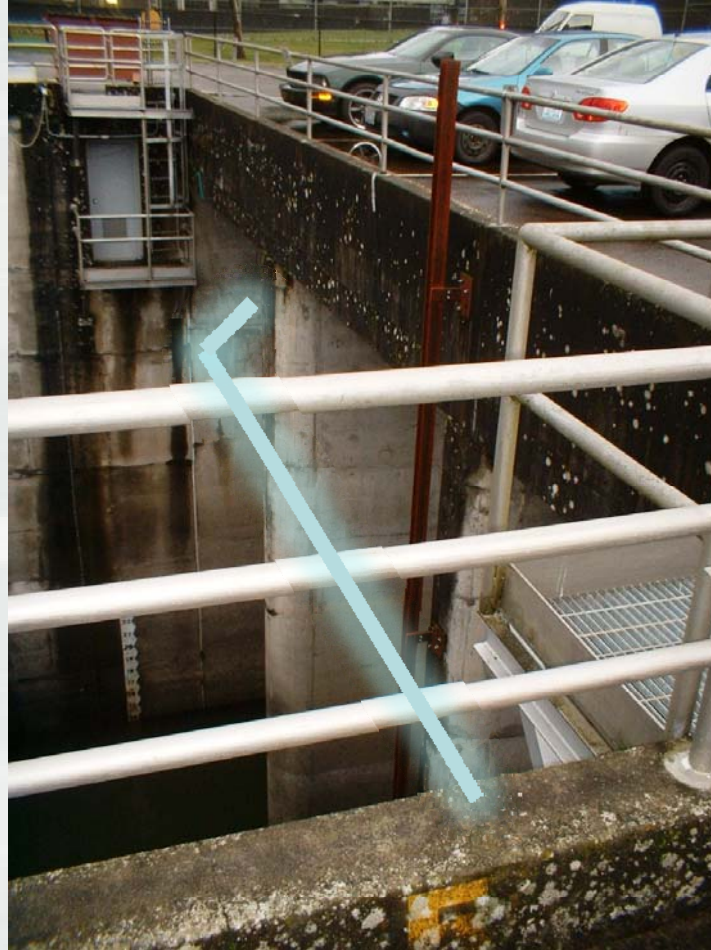
Approximate Path



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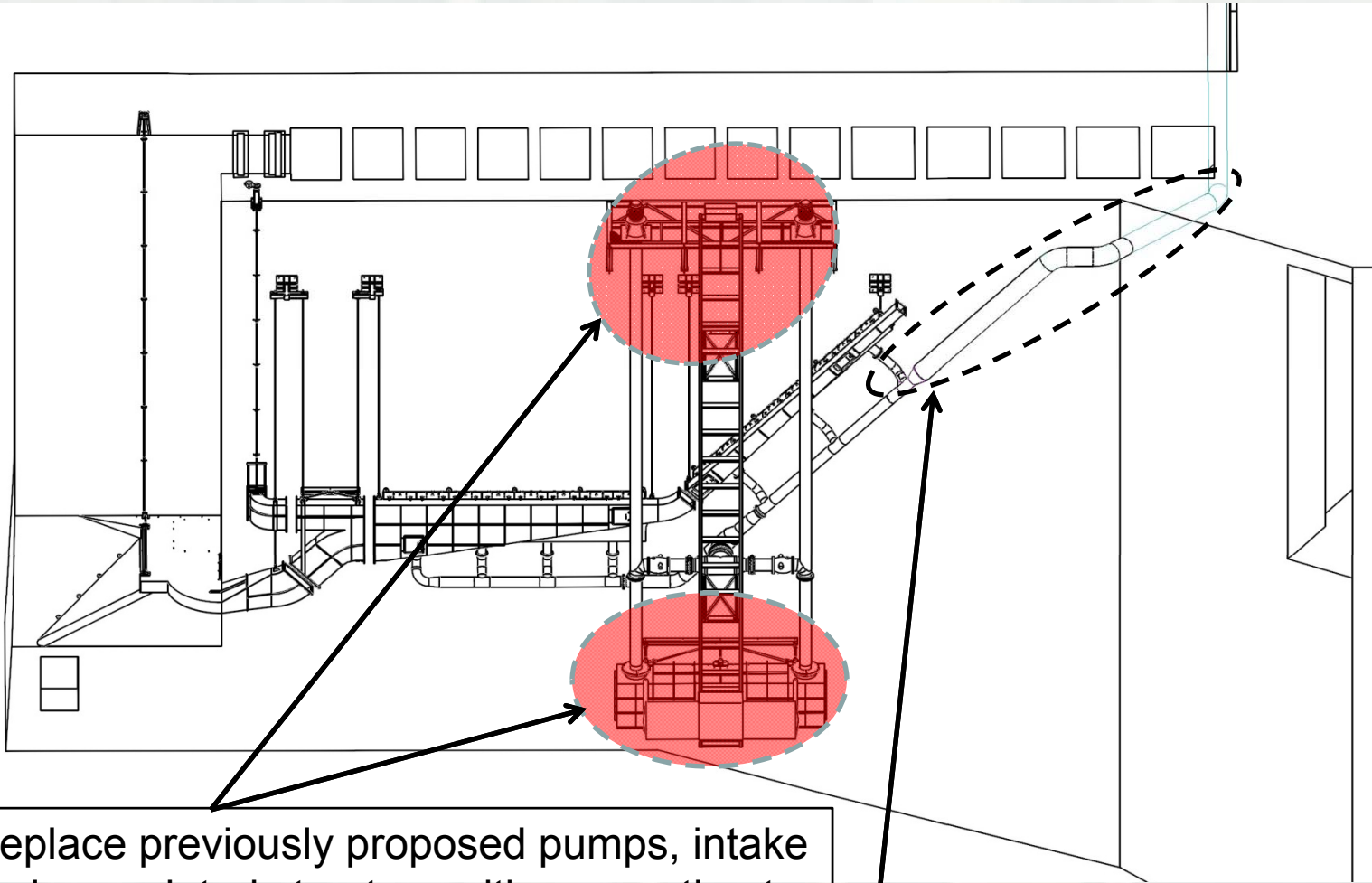


Crossing the lower ladder



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Connect to the Flume Supply Header



Replace previously proposed pumps, intake and associated structure with connection to the new gravity supply pipe.

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