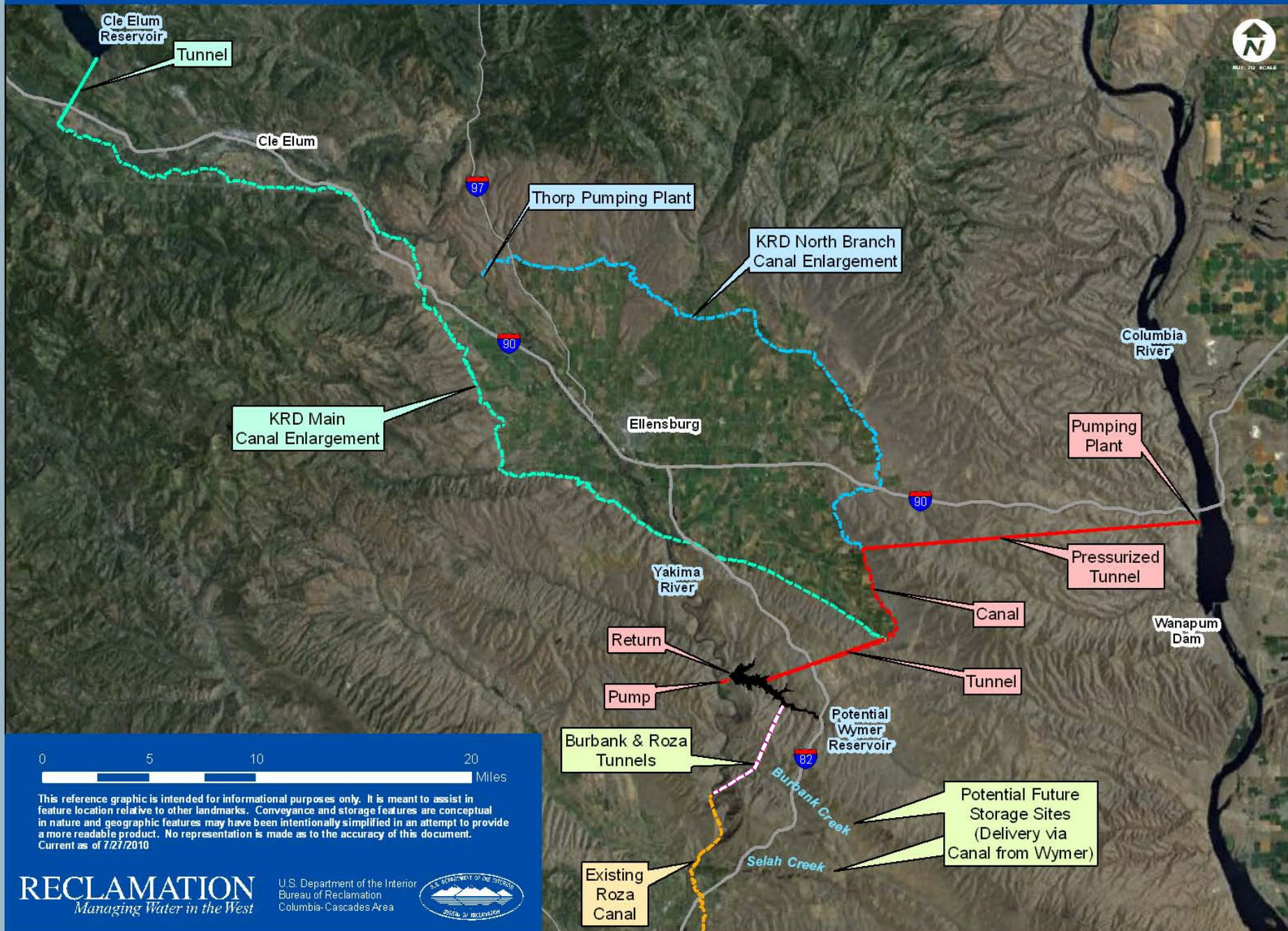




Wymer Project Overview

Wymer Dam & Reservoir - Potential Flexibility





Thorp Pump Station and Wymer Upstream Conveyance

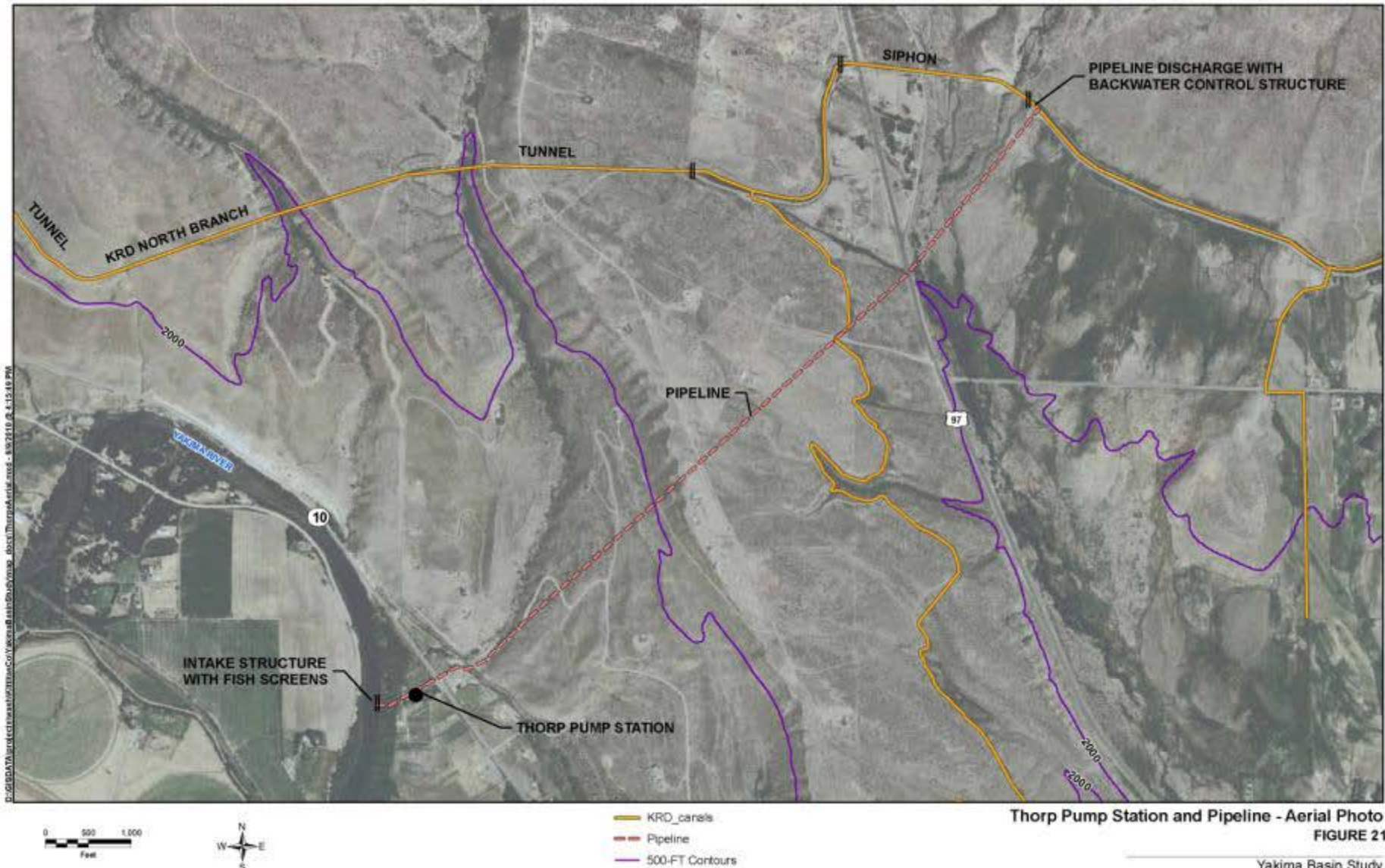
Project Location



Thorp Design Criteria

- Pump up to 1,000 cfs from the Yakima River into the Kittitas Reclamation District (KRD) Canal at Thorp.
- Fish screening required on the Yakima River intake.
- Increase the capacity of ~33 miles (to upstream of the Wipple division) of KRD North Branch Canal to convey an additional 1,000 cfs to Wymer Reservoir.
- Convey flow from Wipple via a new pipeline and tunnel to the proposed Wymer Reservoir.

Thorp Pump Station Area Plan



Thorp Area Topography



0 500 1,000
Feet

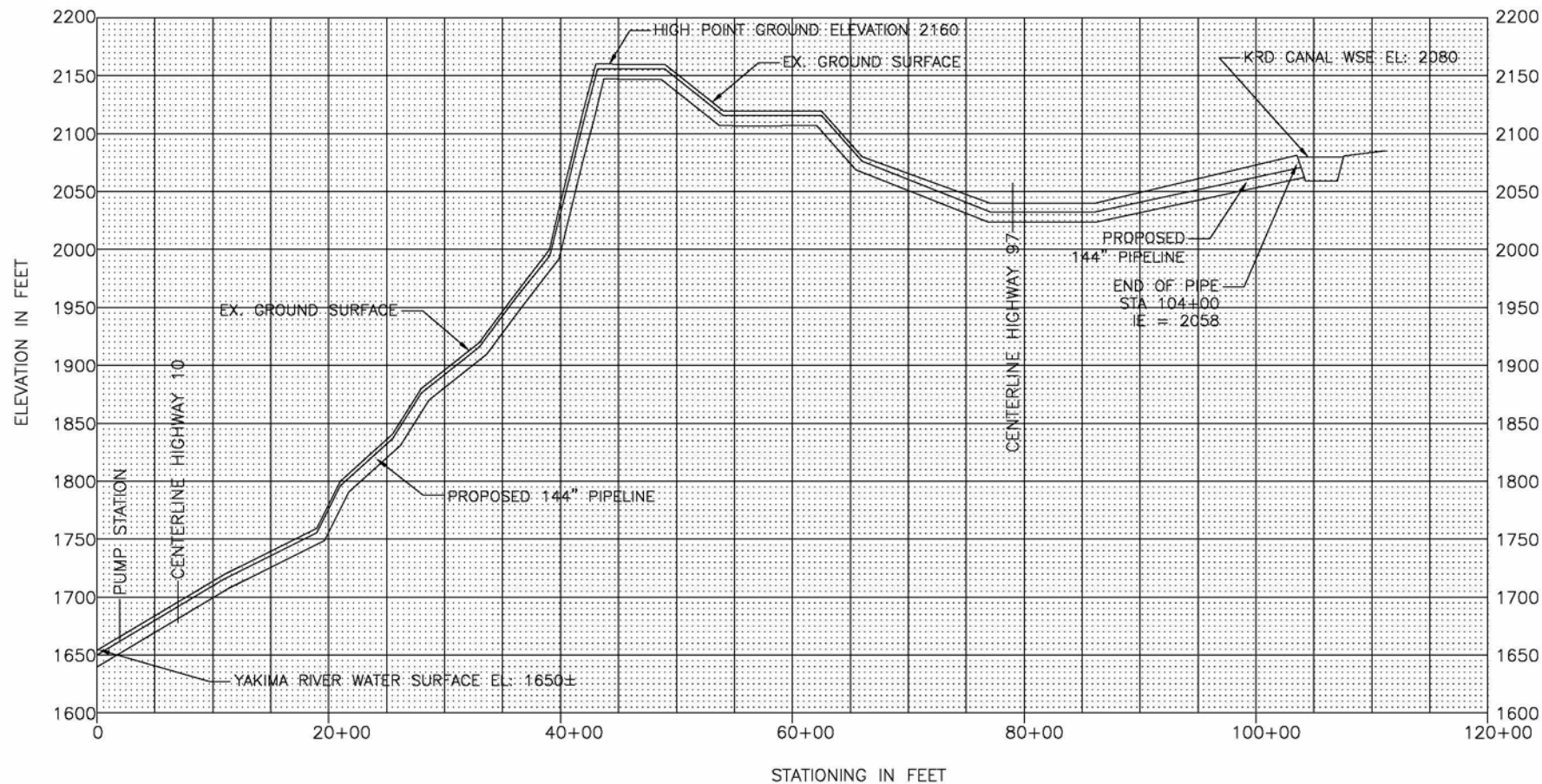


USGS TOPO MAP
40' CONTOUR INTERVAL

— KRD canals
- - Pipeline

Thorp Pump Station and Pipeline - Topography
FIGURE 20

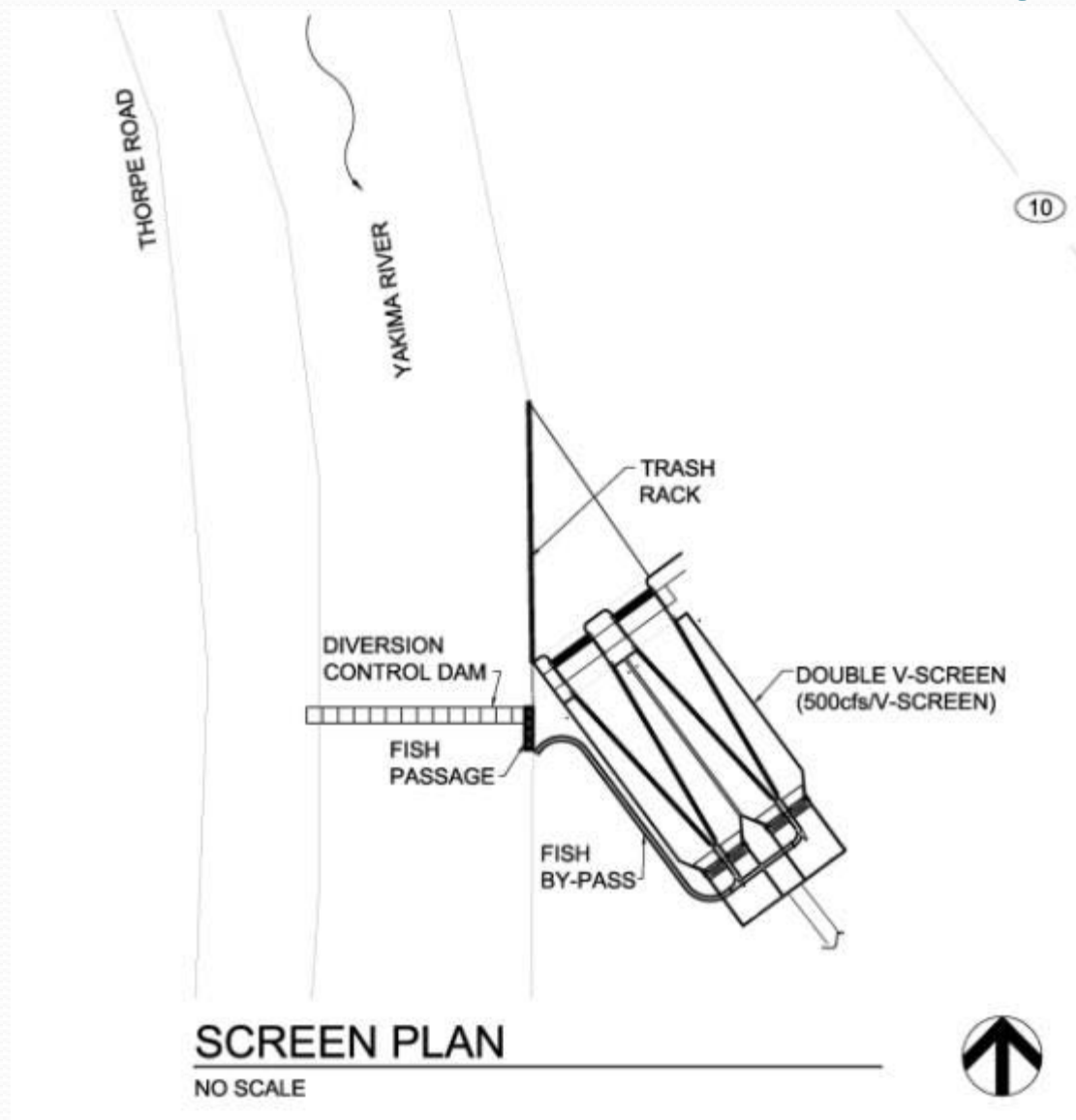
Thorp Pipeline Profile



NOTES:

1) ELEVATIONS BASED ON USGS 7.5 MINUTE TOPOGRAPHIC MAP, THORP QUADRANGLE.

Thorp Fish Screen Concept



Thorp Pump Station Plan

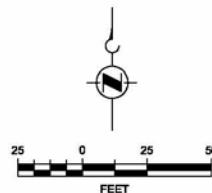
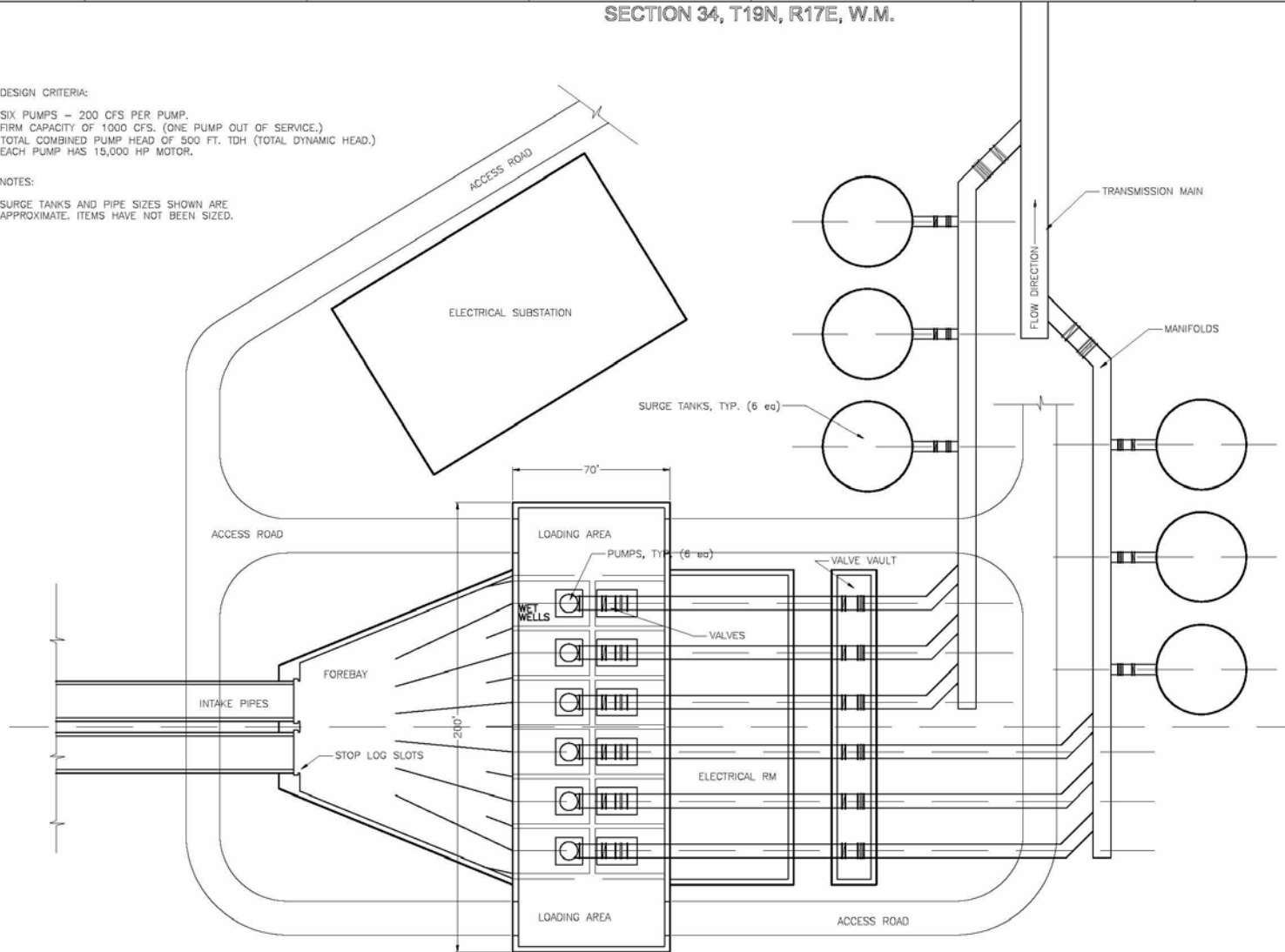
SECTION 34, T19N, R17E, W.M.

DESIGN CRITERIA:

SIX PUMPS - 200 CFS PER PUMP.
FIRM CAPACITY OF 1000 CFS. (ONE PUMP OUT OF SERVICE.)
TOTAL COMBINED PUMP HEAD OF 500 FT. TDH (TOTAL DYNAMIC HEAD.)
EACH PUMP HAS 15,000 HP MOTOR.

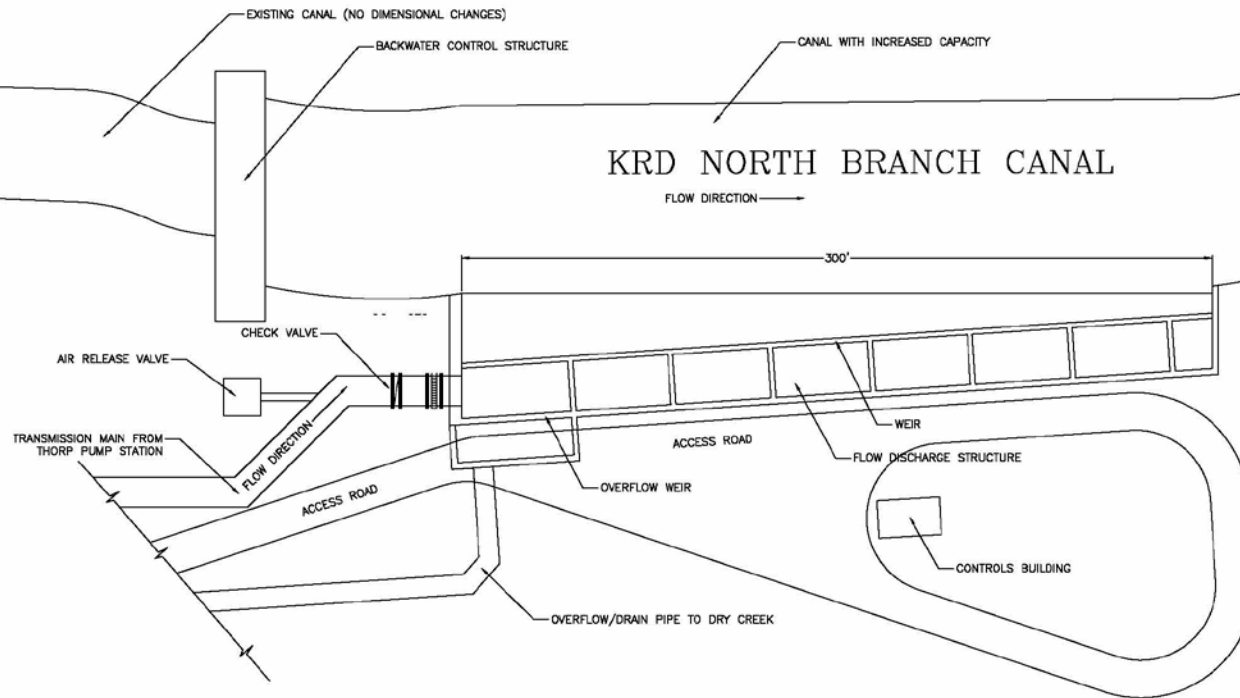
NOTES:

1. SURGE TANKS AND PIPE SIZES SHOWN ARE APPROXIMATE. ITEMS HAVE NOT BEEN SIZED.



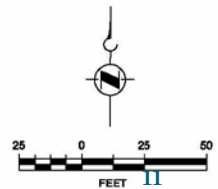
Thorp/KRD Canal Discharge

SECTION 25, T19N, R17E, W.M.

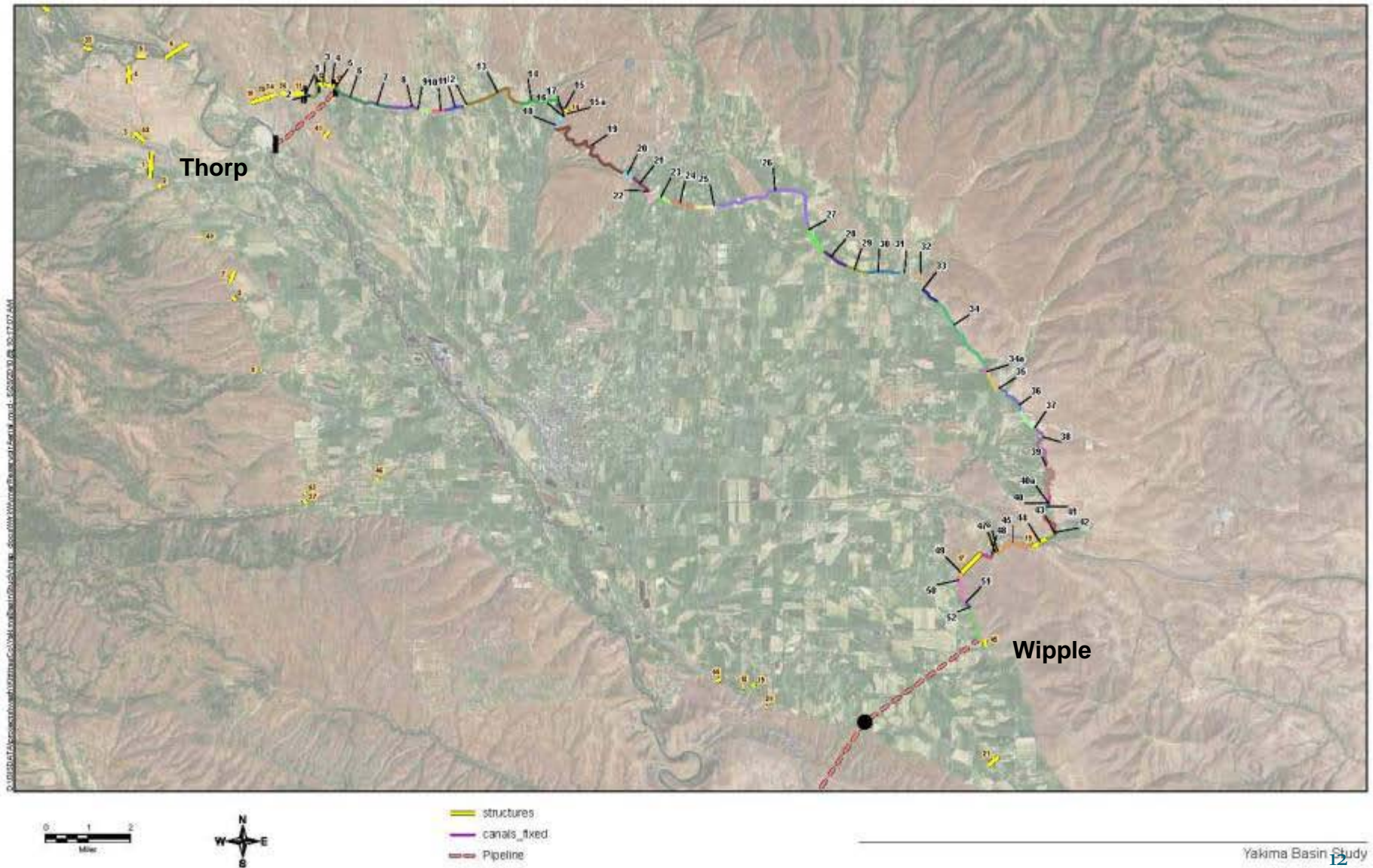


NOTES:

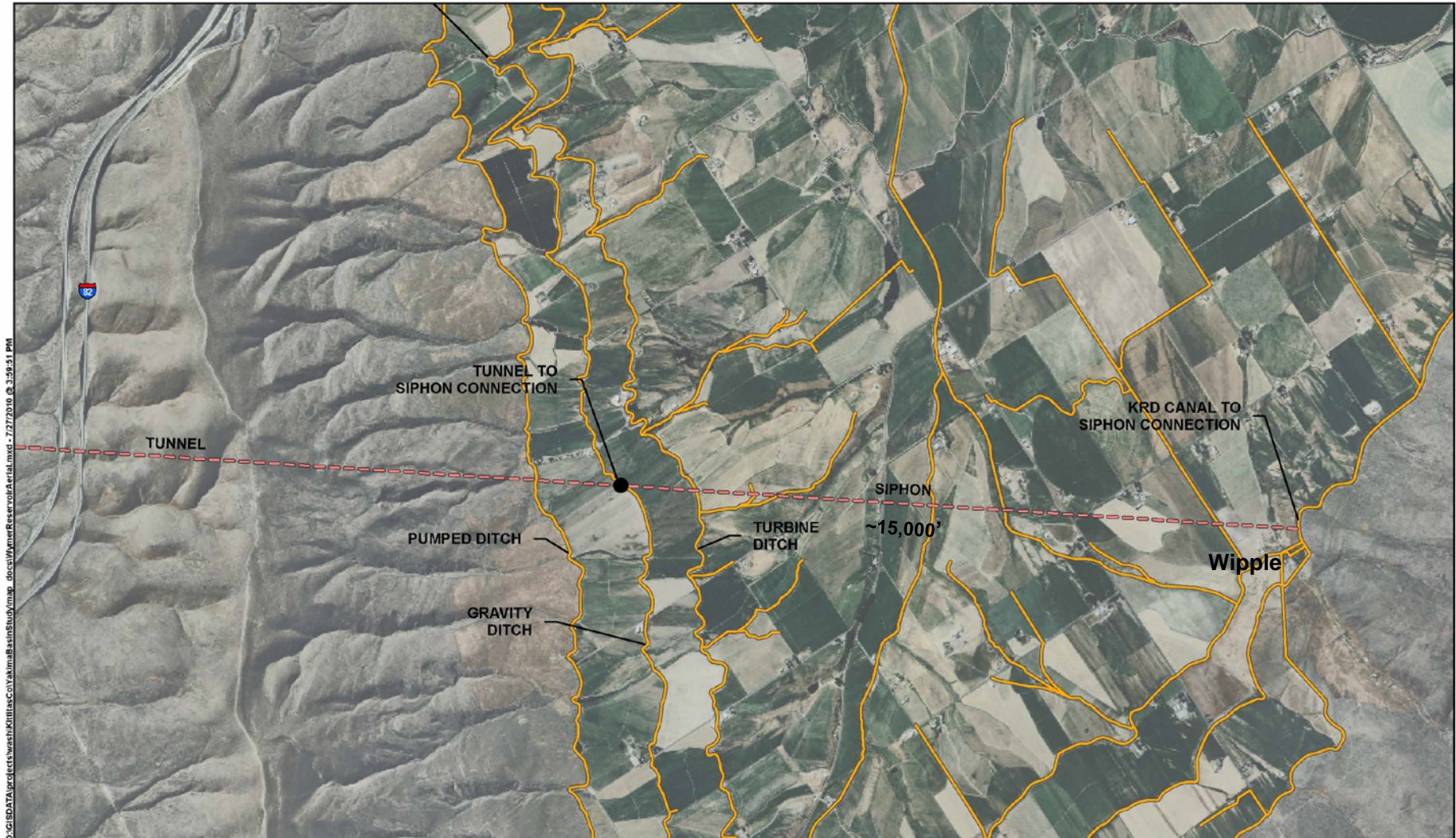
1. LENGTH OF DISCHARGE STRUCTURE APPROXIMATE. DIMENSIONS DEPEND ON WEIR FLOW RATE AND SCREEN REQUIREMENTS.



KRD 33 Mile Canal Upgrade



Connecting to Wymer Reservoir



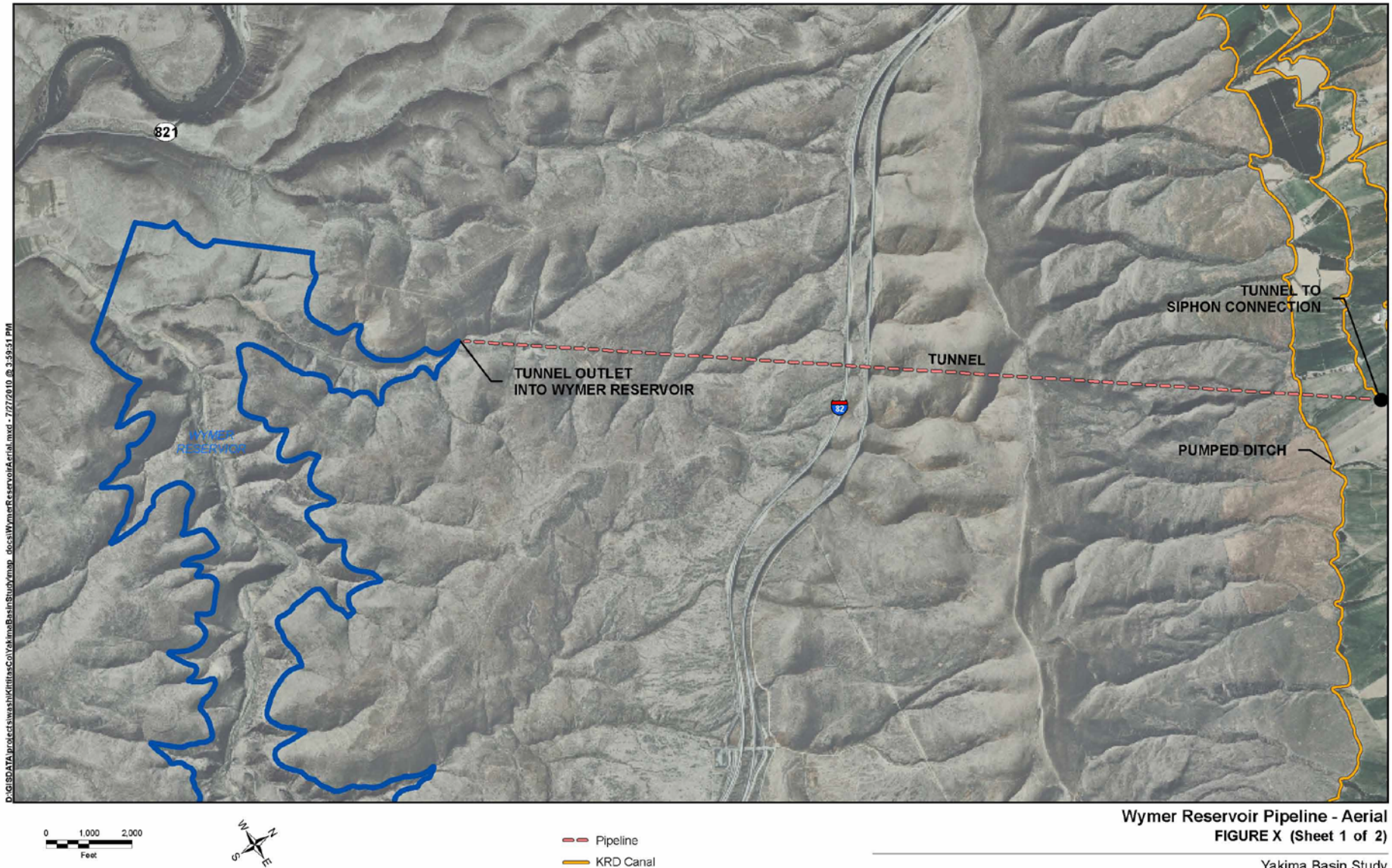
0 1,000 2,000
Feet



— Pipeline
— KRD Canal

Wymer Reservoir Pipeline - Aerial
FIGURE X (Sheet 2 of 2)

Connecting to Wymer Reservoir



Project Challenges

- Siting a large diversion and pump station next to the Yakima River
- Yakima River fish screening and passage
- Routing a large diameter pipeline up to the KRD canal
- Upgrading 33 miles of canal & canal structures to convey an additional 1,000 cfs
- Cross valley pipeline and tunnel to Wymer

Next Steps

- Review canal capacities and define upgrades
- Refine concepts and prepare cost estimate
- Additional results presented at the 9/22 Workgroup mtg. and also summarized in a Technical Memorandum for Workgroup review