Structural/Operational Changes Kittitas Reclamation District (KRD) Modifications

Basin Study Task 4.4

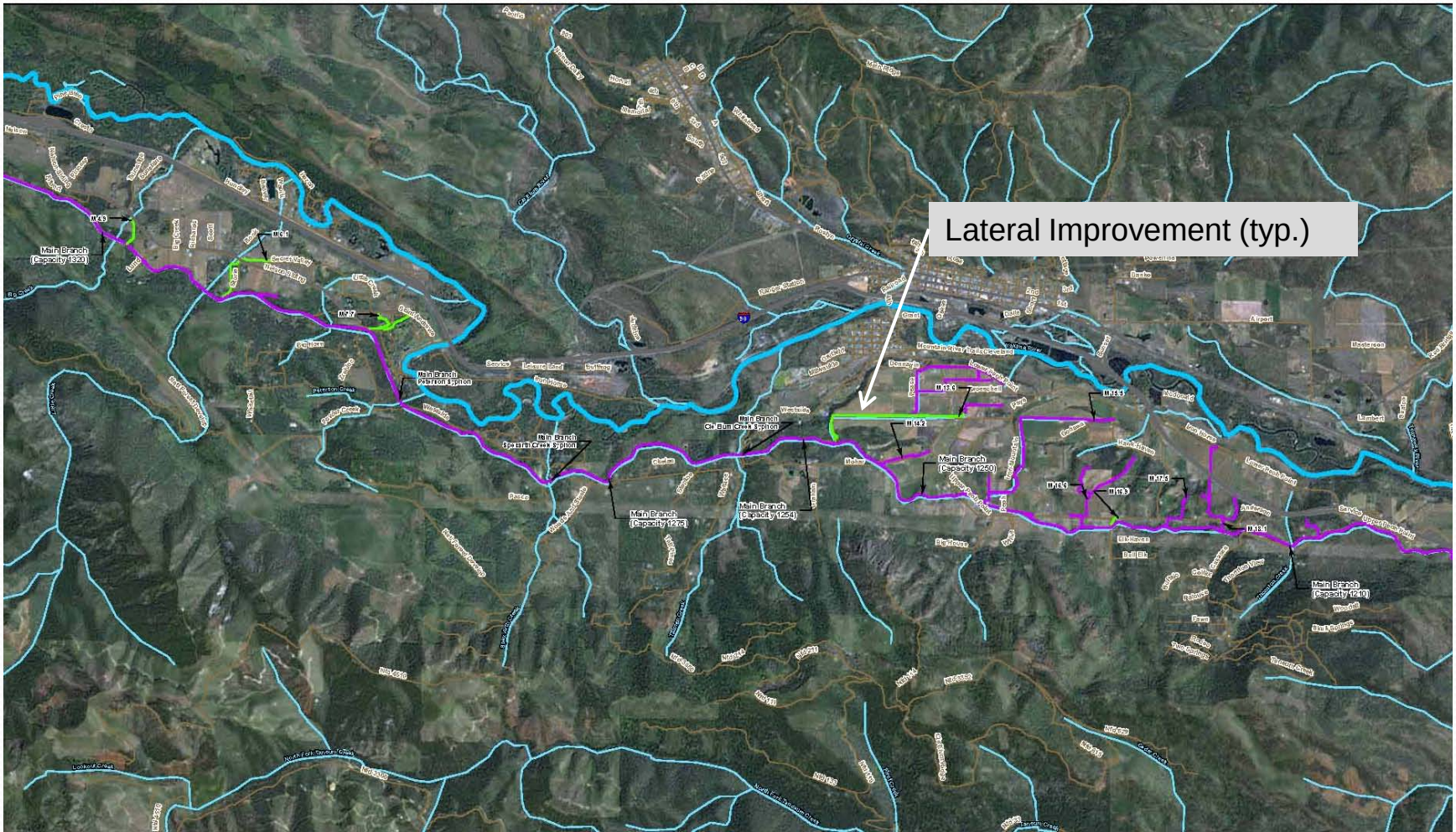
KRD Modifications Summary

- Lateral Piping
  - Pipe high loss laterals in Main Canal and South Branch Canal
  - Water savings applied to Manastash and/or Taneum Creek via KRD system (existing wasteways)
- Pumping to Manastash Creek
  - Pump to supply Manastash Creek diverters
  - Pump from Yakima River near Riverbottom Road to Manastash Creek at existing diversions

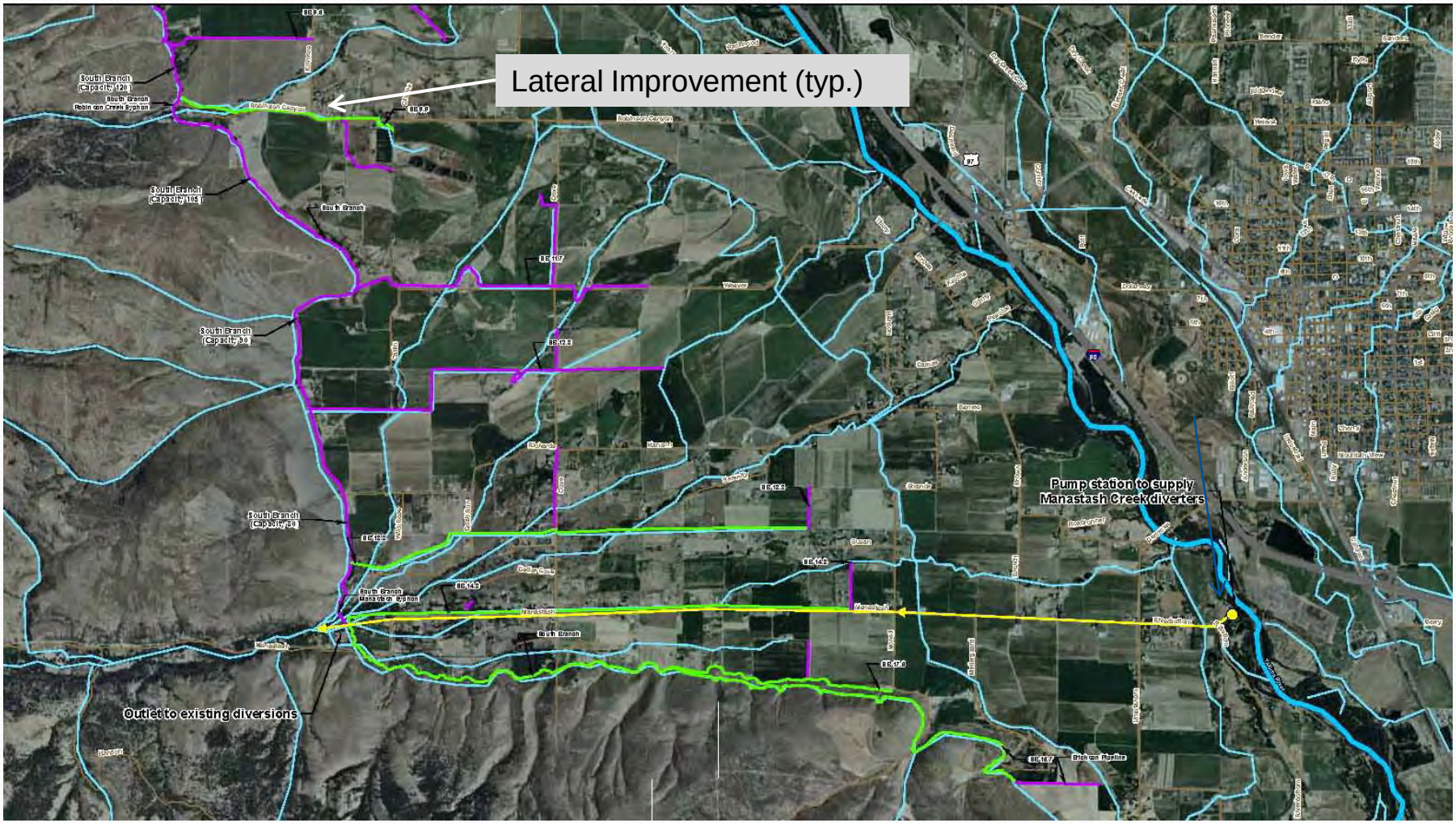
KRD Modifications Lateral Piping

- Pipe quantities based on KRD Water Conservation Plan (CH2M Hill, 1999)
- Main Canal Lateral Piping
  - MC 4.9, MC 6.1, MC 7.7, MC 13.6, MC 16.9
  - Estimated water savings: 1,571 AF/yr
  - Pipe length: 21,127 LF
- South Branch Canal Lateral Piping
  - SB 9.9, SB 13.8, SB 14.3, SB 16.7, SB 17.6
  - Estimated water savings: 3,742 AF/yr
  - Pipe length: 66,272 LF

KRD Modifications
Main Canal



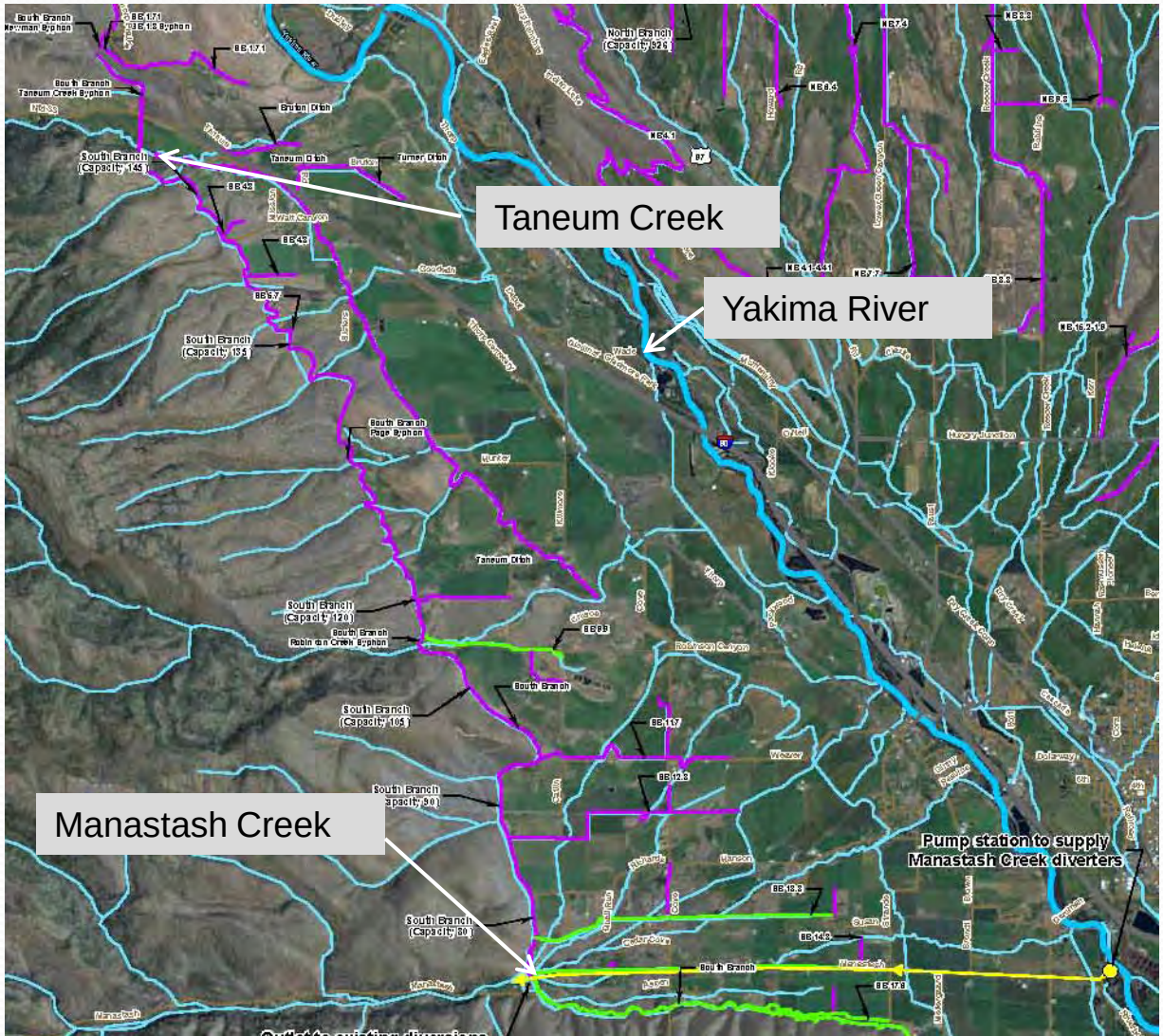
KRD Modifications
South Branch Canal



KRD Modifications
Lateral Piping

- Total estimated water savings: 5,312 AF/yr
  - 14.9 cfs average over irrigation season
- Continue to divert saved water; supply to tributaries
  - High priority – Taneum and Manastash Creeks
    - KRD currently has spillways that drain to these creeks
    - Use existing system to supplement flow in creeks

KRD Modifications
Lateral Piping – Existing Spillways to Tribs

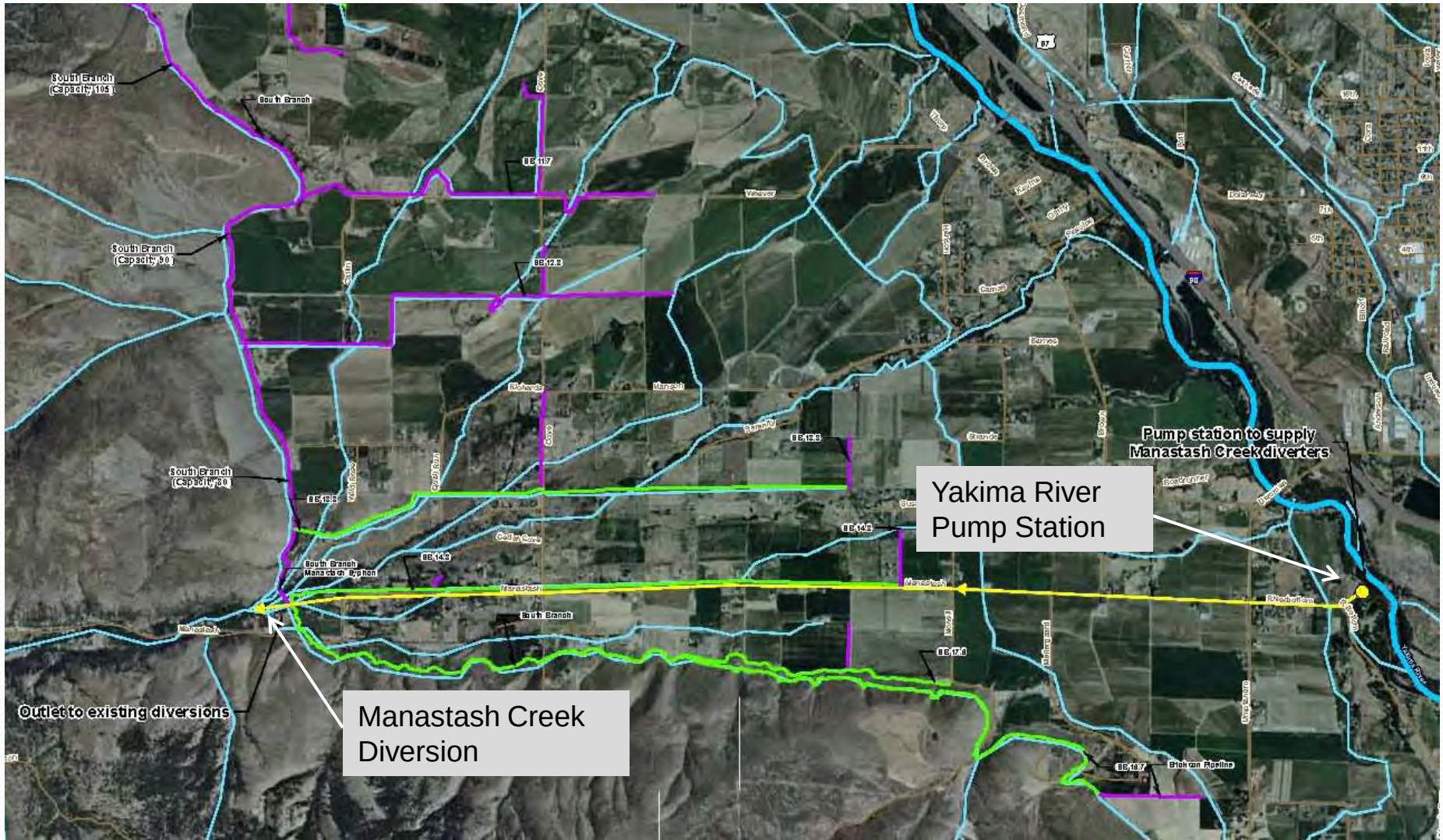


KRD Modifications
Pumping to Manastash Creek

- 25 cfs pump on Yakima River
  - Near Riverbottom Road
  - Estimated WSE at Yakima River: 1490 ft
- Pump water to Manastash Creek diverters
  - Outlet at existing diversions
  - Estimated WSE at existing diversions: 2030 ft
- Convey water with pipeline
  - Estimated length: 31,000 LF

Note: Estimates preliminary and subject to change

KRD Modifications
Pumping to Manastash Creek



Next Steps

- Determine whether Yakima River pump station stays in alternative
- Confirm quantities and develop cost estimates
- Define flow and other benefits

Disclaimer

- Results discussed today are working drafts
- Data and calculations are still being checked and results may be updated