

# Conservation Advisory Group (CAG) Meeting Summary

March 13, 2019



*Presented by:*

**Wendy Christensen**, Bureau of Reclamation

**Tom Tebb**, Washington State Department of Ecology

**Ron Cowin**, Sunnyside Valley Irrigation District

**Richard Dills**, Yakama Nation

**Urban Eberhart**, Kittitas Reclamation District

**Jason McShane**, Kennewick Irrigation District

**Melissa Downes**, Washington State Department of Ecology



# Conservation Advisory Group

- February 25, 2019 - CAG Meeting Summary
- The Purpose of CAG, Title XII 1994 legislation, Section 1203
- The Many Types of Water Conservation
  - Sunnyside Valley Irrigation District, Title XII, Section 1203
  - Wapato Irrigation Project, Title XII, Section 1204
  - Kittitas Reclamation District, Title XII, Section 1207
  - Kennewick Irrigation District, WaterSMART
  - Yakima Basin Integrated Plan – Enhanced Water Conservation Element – funded by Ecology
  - Irrigation District Conservation – funded by District
  - On-farm Conservation – various



# Conservation Advisory Group Meeting

- **Held: Monday, February 25, 2019 9:00 a.m. to 12:00 p.m.**
- AGENDA
- **Welcome/Introductions of New Members to CAG**
- **History of CAG**
- **Reclamation/YRBWEP Projects Update**
  - Conserved Water – Stan Isley, Ecology
  - Tributary Program – Jason Romine, US Fish and Wildlife
  - Habitat Program – Jeanne Demorest, Reclamation
  - Cle Elum Pool Raise – Wendy Christensen, Reclamation
  - Cle Elum Fish Passage – Richard Visser, Reclamation
  - Cle Elum Interim Fish Passage – Pat Monk, Reclamation
- Ecology Projects Update – Melissa Downes, Ecology
- Sunnyside Valley ID YRBWEP Phase II – Ron Cowin
- Conservation on Wapato Irrigation Project – Phil Rigdon, Richard Dills
- Kittitas Reclamation District Conservation Program – Urban Eberhart
- Kennewick Irrigation District – Jason McShane
- **CAG Member Discussion**
- **Open for Public Comment**
- **Adjourn**



# CAG Authorization/Purpose/Members

- **The Conservation Advisory Group authorized in the YRBWEP Title XII Act under section 1203**
  - the Secretary, in consultation with the State of Washington, the Yakama Indian Nation, Yakima River basin irrigators, and other interested and related parties, shall establish the Yakima River Basin Conservation Advisory Group
- **The Conservation Advisory Group shall--**
  - Provide recommendations to the Secretary and to the State of Washington regarding the structure and implementation of the Basin Conservation Program,
- **Members/Representatives**
  - Yakama Nation
  - Yakima River basin nonproratable irrigators
  - Yakima River basin proratable irrigators
  - WSU Agricultural Extension Service
  - Washington State Fish and Wildlife
  - Environmental interests



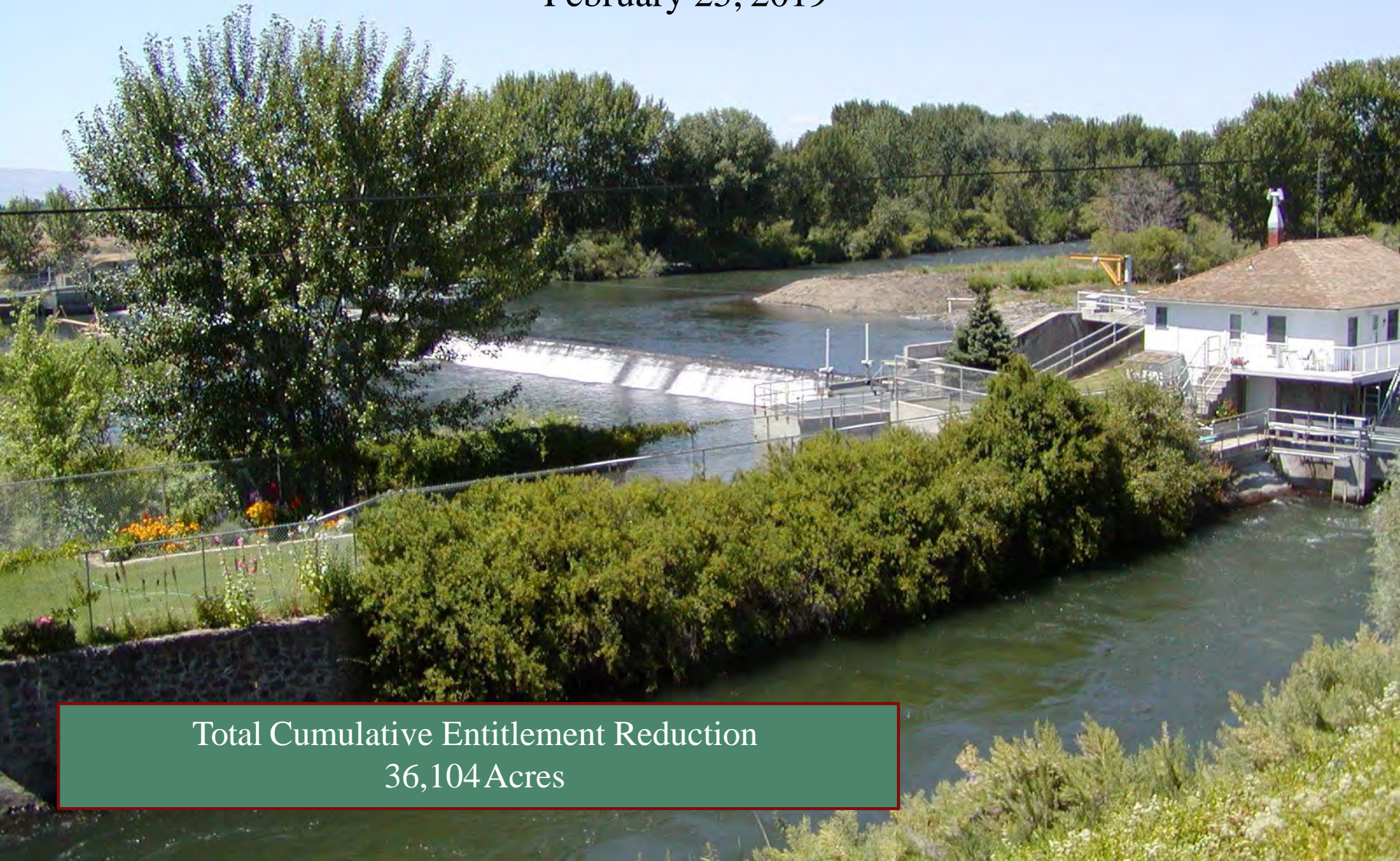
# Sunnyside Valley Irrigation District Sunnyside Board of Control

Conservation through Section 1203 of the YRBWEP  
Title XII Act





Sunnyside Division  
Water Conservation Projects  
February 25, 2019

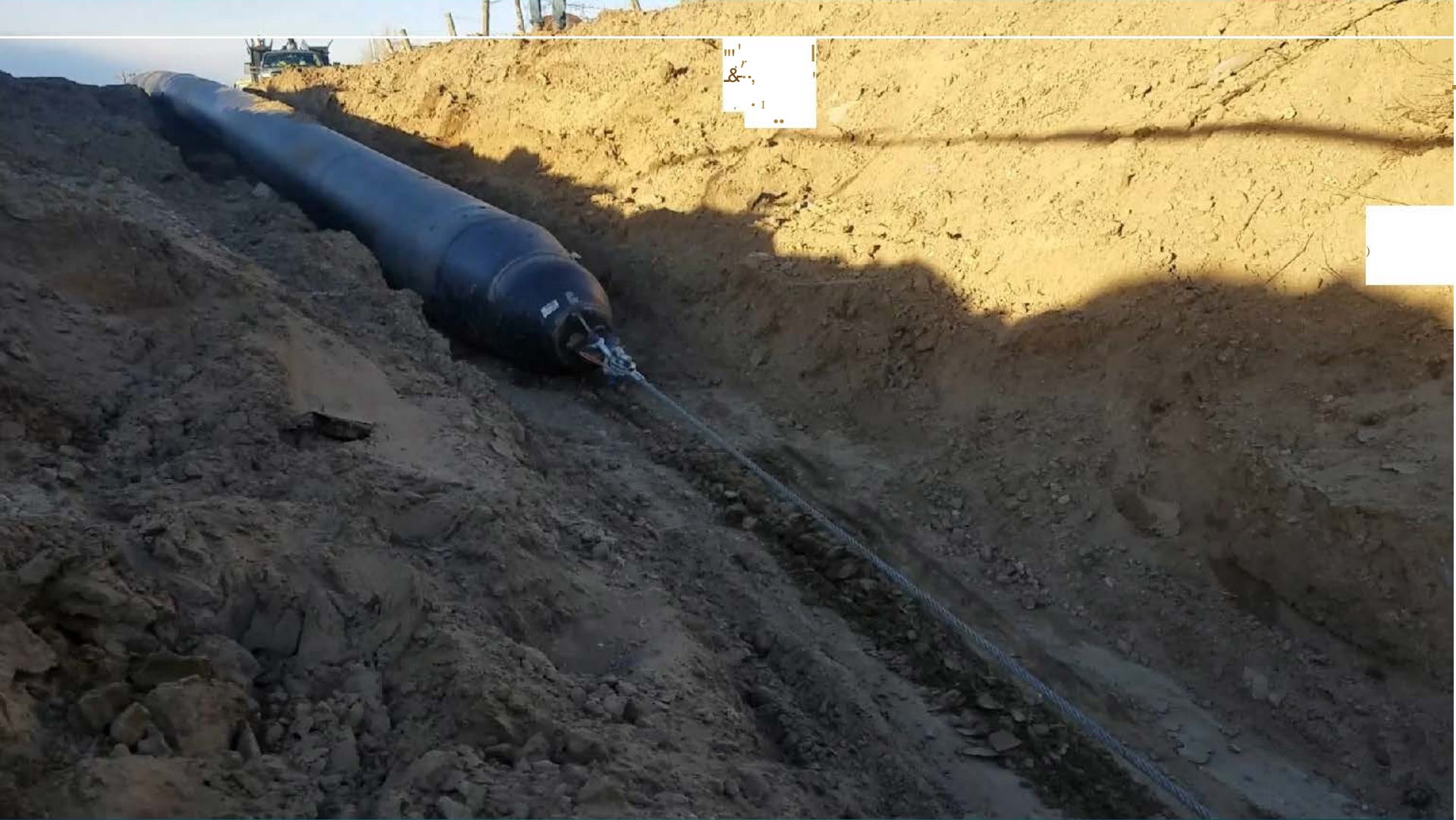


Total Cumulative Entitlement Reduction  
36,104 Acres









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# Wapato Irrigation Project

- Conservation through Section 1204 of the YRBWEP Title XII Act



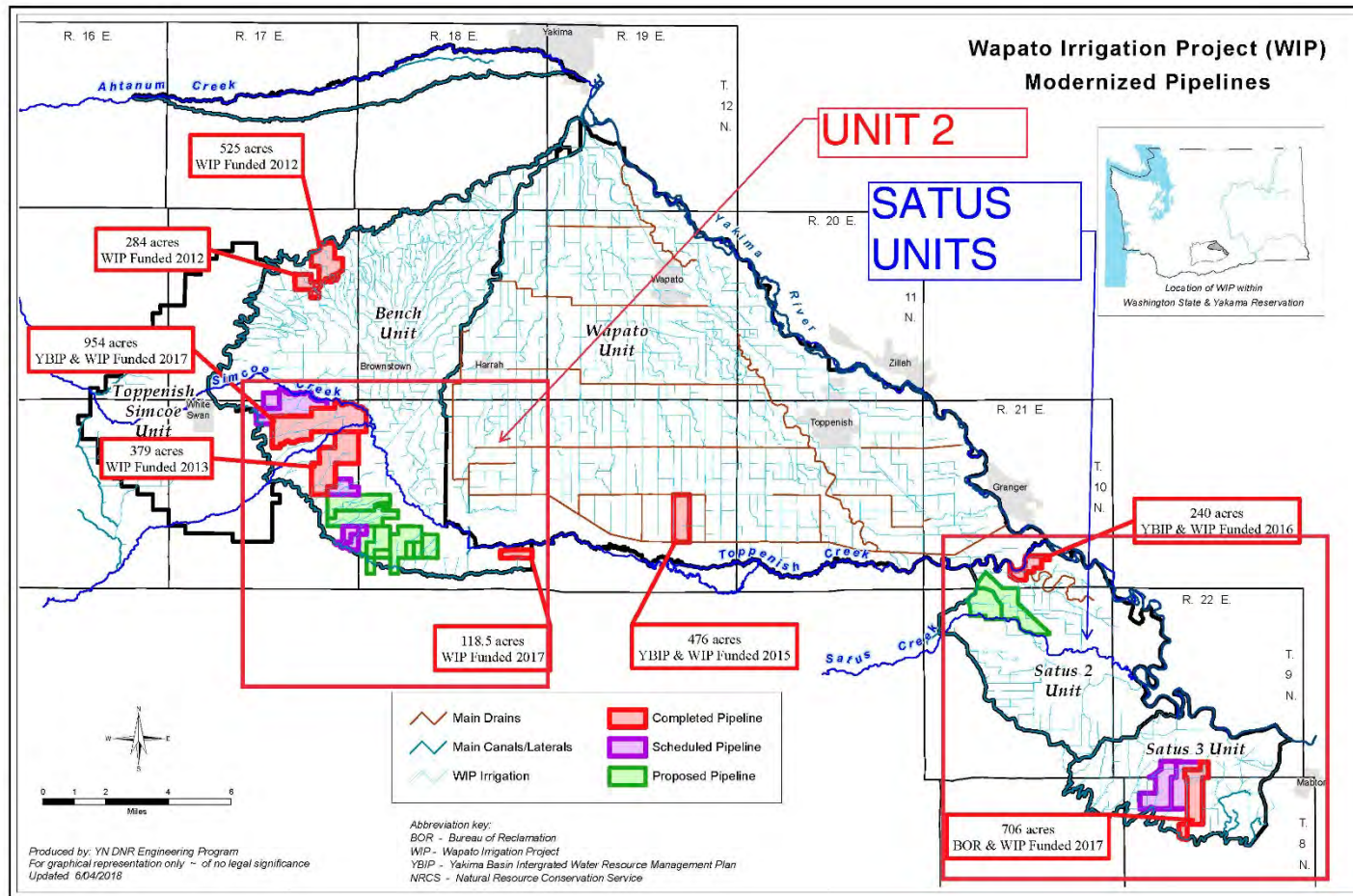


# WAPATO IRRIGATION PROJECT (WIP)

PHIL RIGDON M.S., Yakama Nation,  
Department of Natural Resources  
Superintendent

Richard Dills, P.E., S.E.

Yakama Nation Engineering



Projects: L672 LINE (completed April 2018), UNIT 2 CANAL LINING (complete April/2019), L274, L739, L766, L434 (complete Dec. 2019 after Cultural Resources clearance)



CURRENTLY IN UNIT 2 THERE ARE THREE (3) PROJECTS THAT:

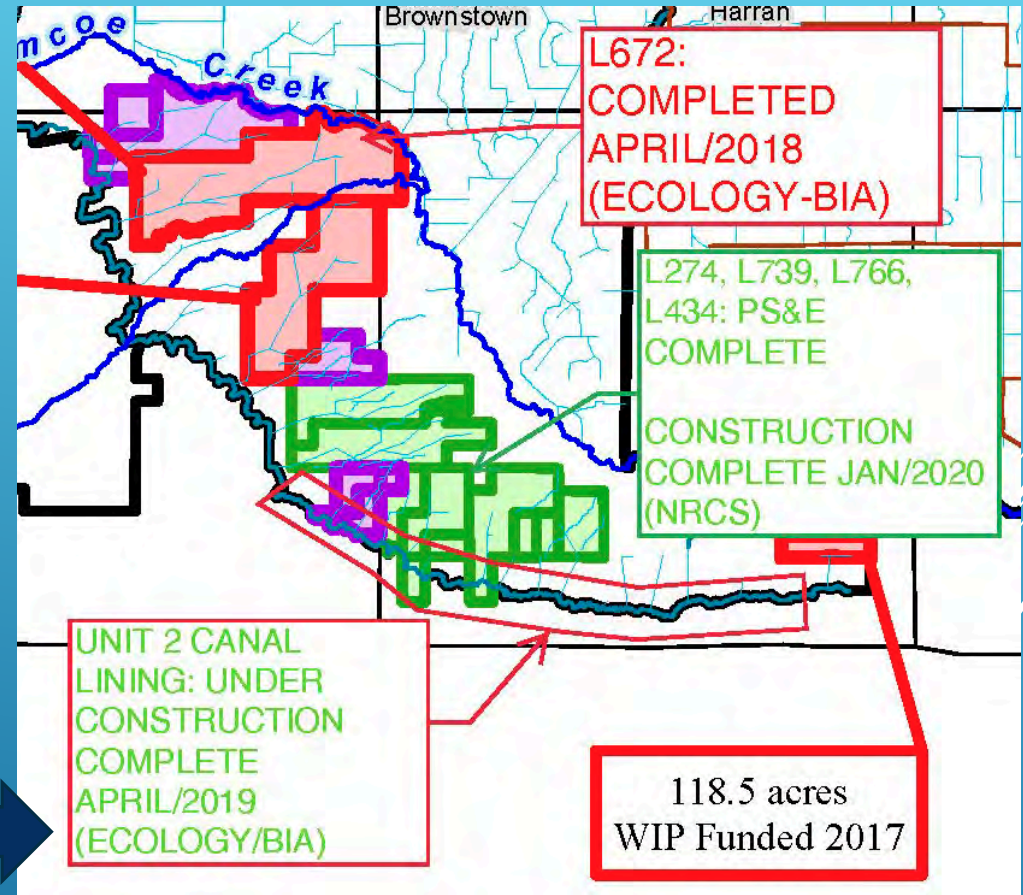
1. HAVE BEEN RECENTLY COMPLETED

2. ARE UNDER CONSTRUCTION

3. HAVE ALL DESIGN AND CONSTRUCTION DOCUMENTS IN PLACE. PLANS, SPECIFICATIONS & ESTIMATES (PS&E) COMPLETE, MATERIAL PURCHASED AND AWAITING CULTURAL RESOURCES CLEARANCE TO BEGIN

WATER SAVINGS ESTIMATE FOR NRCS-UNIT 2: 1363 ACRE-FT/YR.

WATER SAVINGS ESTIMATE: 1240 ACRE-FT/YEAR



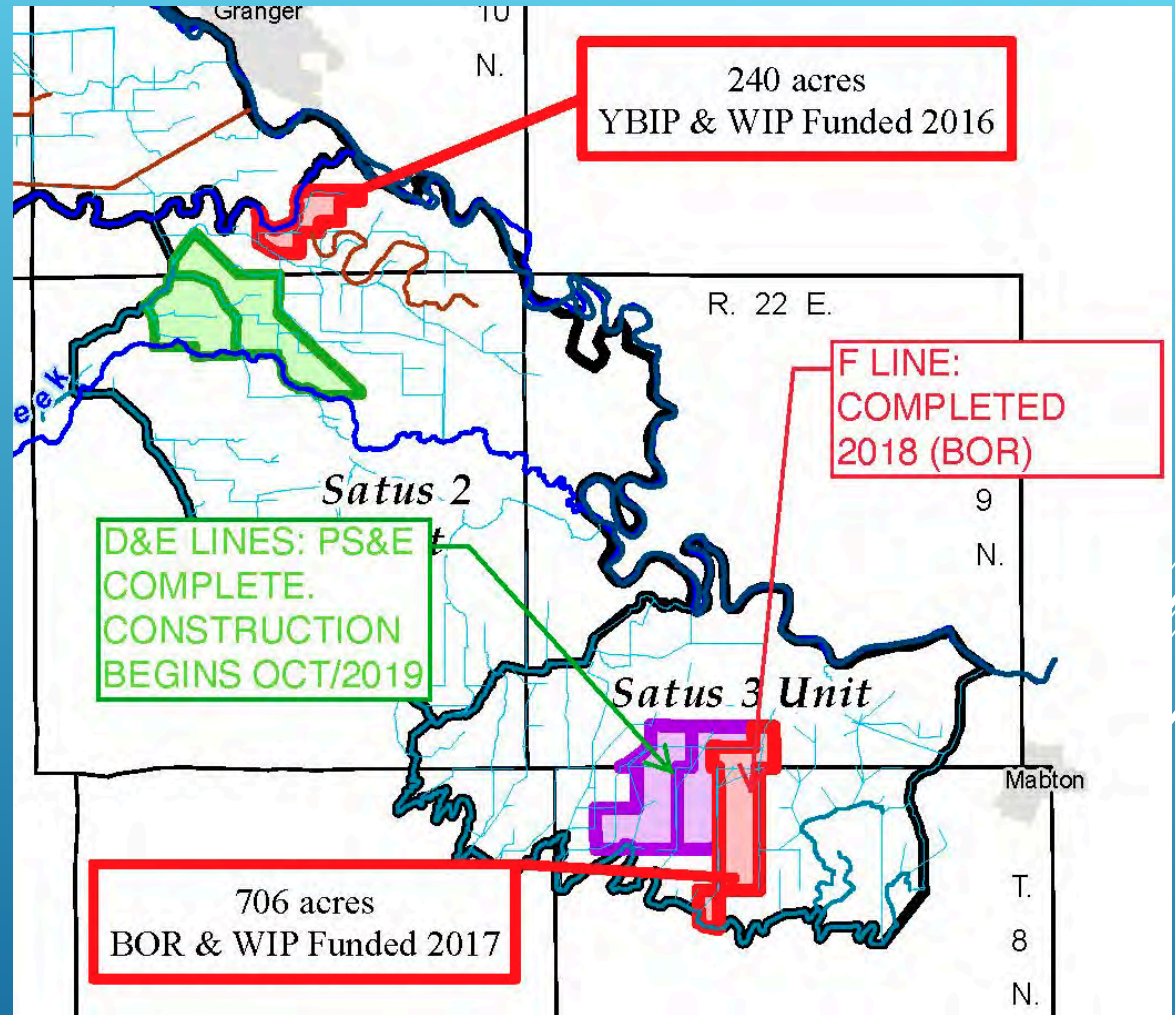
SECOND LOCATION  
(MAINLY FUNDED  
THROUGH 638 GRANT  
WITH BUREAU OF  
RECLAMATION:

SATUS UNITS: 2 & 3

Water Savings:

D-Line = 524 Acre-ft./Yr.

E-Line = 545 Acre-ft./Yr.





E Line Pipeline 470 acres served  
water savings ~545 ac.ft.

dLine Pipeline 651 acres served  
water savings ~524 ac.ft.

EXHIBIT E

E Line Pipeline Design 476 acres served

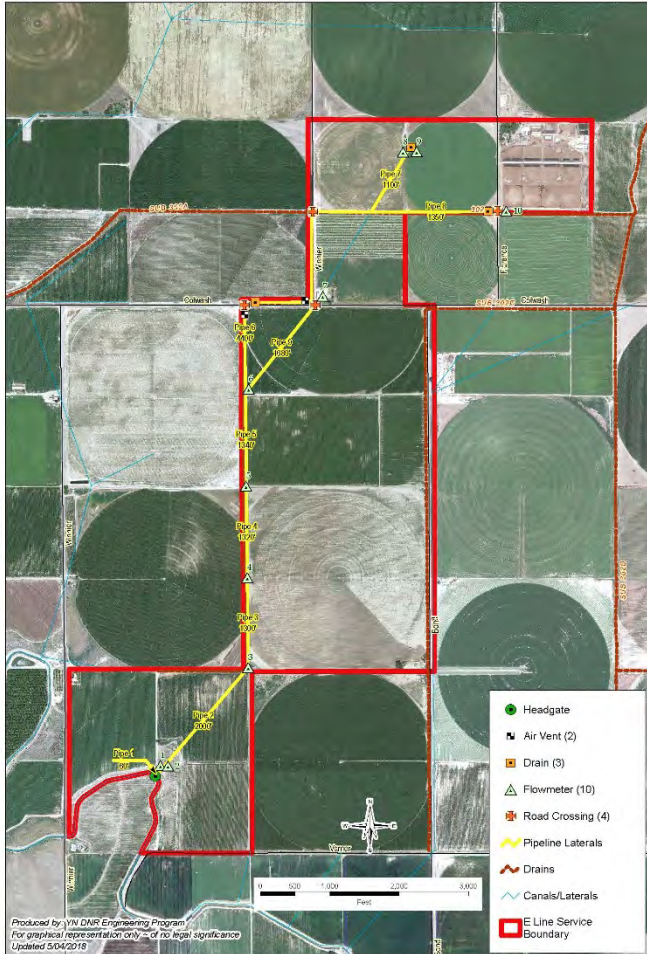
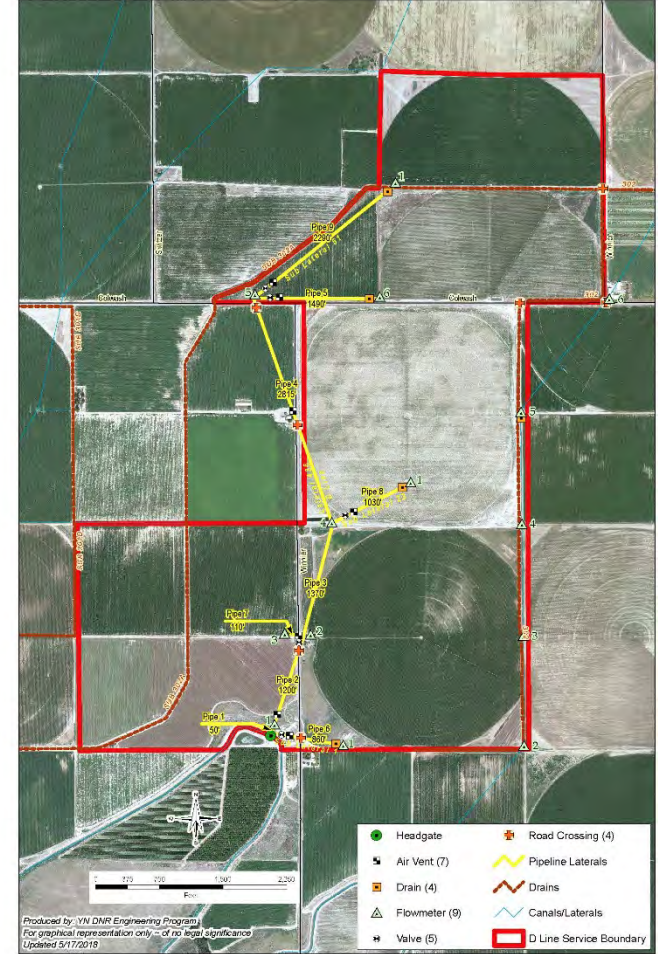


EXHIBIT "D"

D Line Pipeline Design 651 acres served







BEFORE  
AND AFTER





BEFORE

AFTER





BEFORE



AFTER

CURRENTLY, WAPATO IRRIGATION PROJECT HAS COMPLETED BETWEEN 8%-10% OF OUR ANTICIPATED CONSERVATION PROJECTS.

## LOOKING TO THE FUTURE

ONE OF THE MOST IMPORTANT ITEMS TO HAVE IN PLACE PRIOR TO COMPLETING OUR CONSERVATION EFFORTS IS: THE ABILITY TO MEASURE THE NET EFFECT OF OUR EFFORTS. HENCE ONE OF OUR HIGHER PRIORITIES FOLLOWS: DOPPLER FLUMES



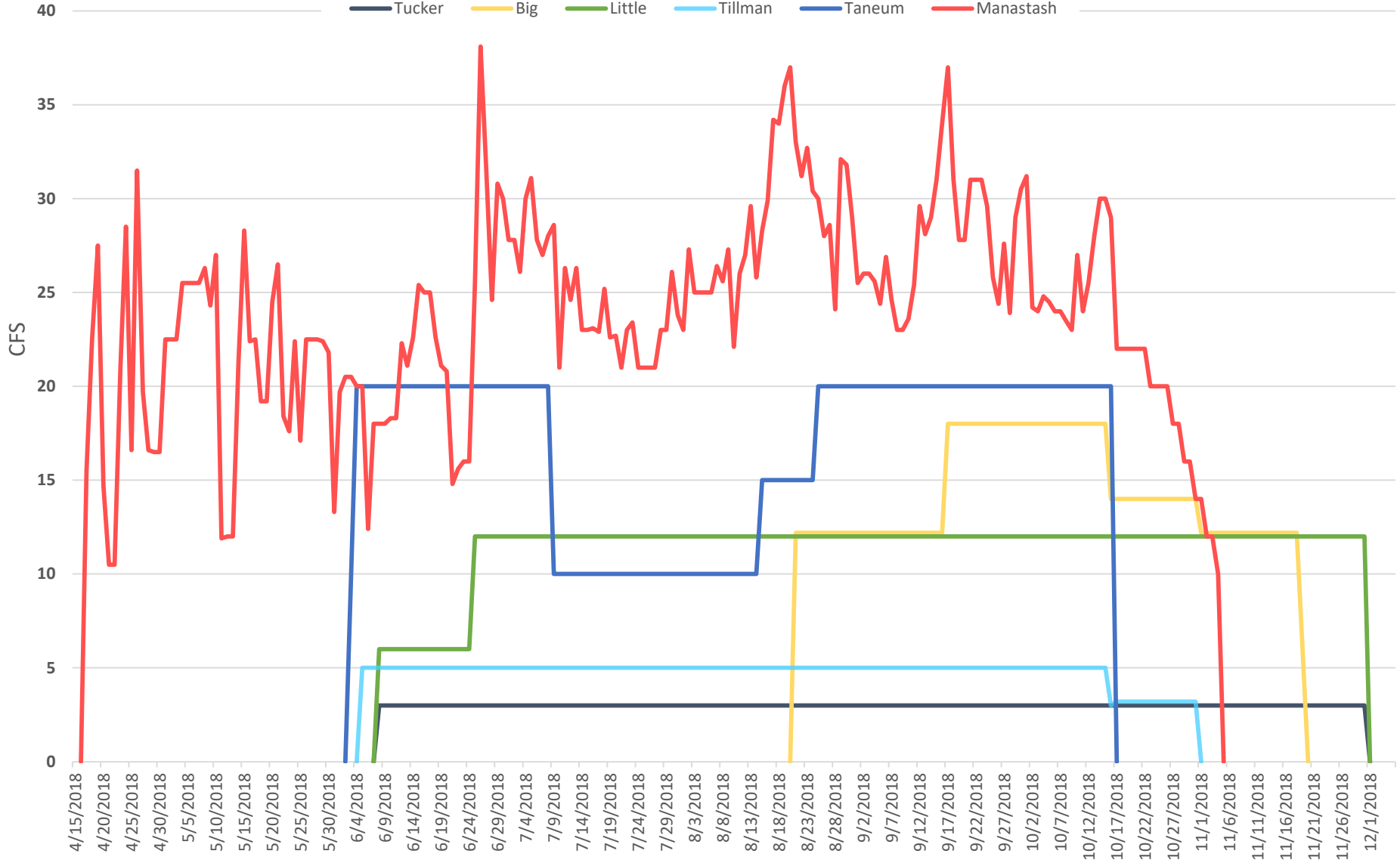
# Kittitas Reclamation District

- Conservation through Section 1207 of the YRBWEP Title XII Act.



# KRD Stream Supplementation 2018

Acre-feet delivered						
Tucker	Big	Little	Tillman	Taneum	Manastash	Total
1,047	2,563	3,987	1,414	4,542	9,555	23,108



# Instream Flow Benefits

Before



After





## Water Conservation Implementation



Projects Completed for 2019 Water Season	Water Savings (CFS)	Water Savings (AF)
SB13.6 & SB13.8 Pipeline	3.5	1249.6
North Branch Lining Phase 1	1.5	535.5
North Branch Lining Phase 2	5.4	1928.0
North Branch Lining Phase 3A	1.2	432.0
South Branch Lining	1.4	492.7
<b>Total 2019 season:</b>	<b>13.0</b>	<b>4637.8</b>

#5 SB Lining  
Will Save 4.4 CFS

#1 SB13.8  
Saved 3.5 CFS

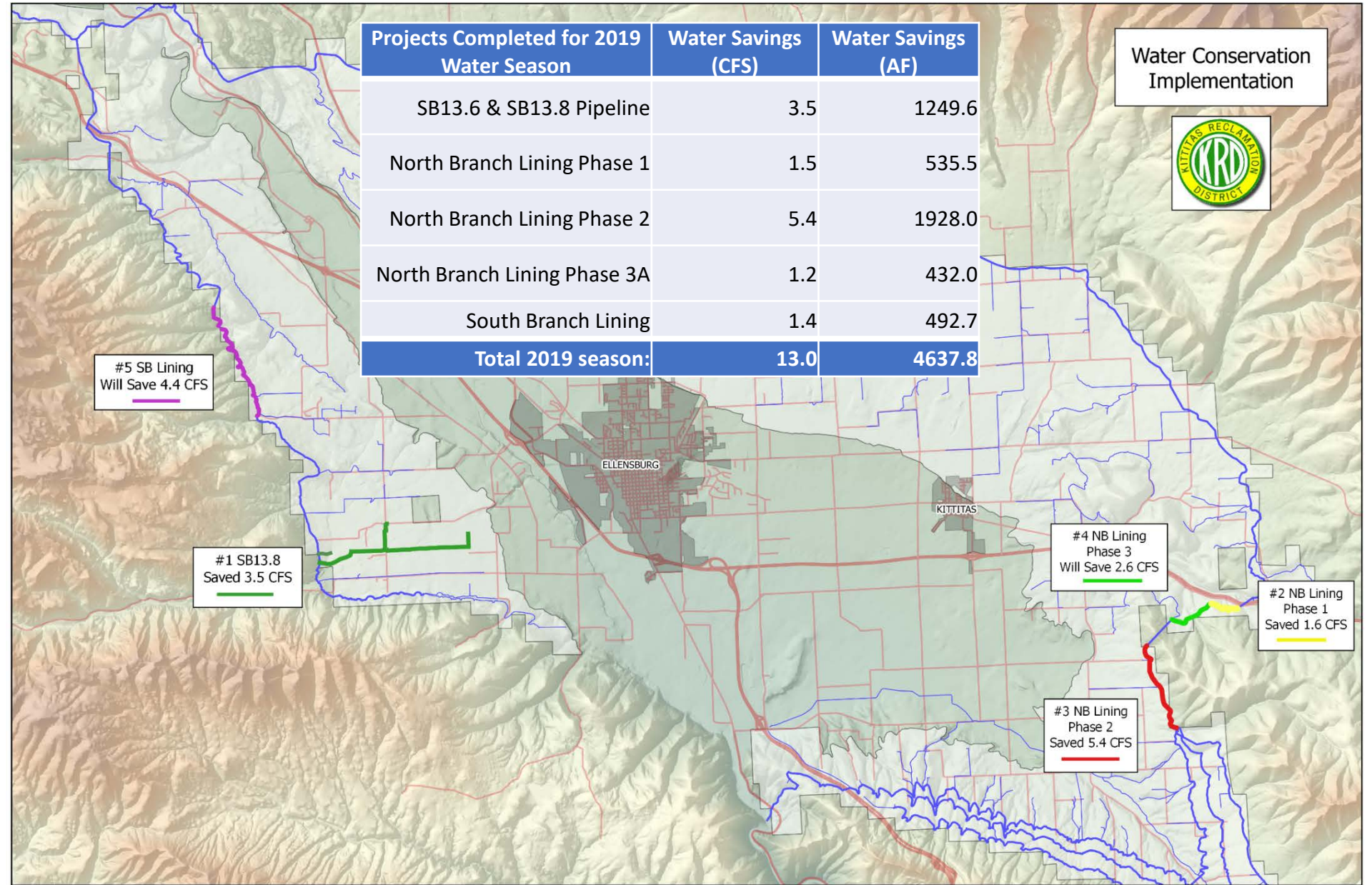
#4 NB Lining  
Phase 3  
Will Save 2.6 CFS

#2 NB Lining  
Phase 1  
Saved 1.6 CFS

#3 NB Lining  
Phase 2  
Saved 5.4 CFS


ELLENSBURG

KITTITAS



Conservation Completed	Water Savings (CFS)	Water Savings (AF)	2015	2016	2017	2018	2019	KRD Integrated Plan Conservation Totals AF
SB13.6 & SB13.8 Pipeline	3.5	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	6248.0
North Branch Lining Phase 1	1.5	535.5			535.5	535.5	535.5	1606.6
North Branch Lining Phase 2	5.4	1928.0				1928.0	1928.0	3855.9
North Branch Lining Phase 3A	1.2	432.0					432.0	432.0
South Branch Lining	1.4	492.7					492.7	492.7
<b>Totals</b>	<b>13.0</b>	<b>4637.8</b>	<b>1249.6</b>	<b>1249.6</b>	<b>1785.2</b>	<b>3713.1</b>	<b>4637.8</b>	<b>12635.3</b>

Cumulative Water Savings





**KENNEWICK  
IRRIGATION DISTRICT**

## Water Conservation through WaterSmart Grants







- Yakima Project (Reclamation)
- Founded in 1917, authorized in 1948
- First deliveries in 1957
- Construction completed in 1958
- 20,201 irrigable acres
- 23,668 customer accounts (2018)
- 74 miles of open channel canal
- Over 300 miles of pipe
- Over 15,000 risers in dense urban area
- 62 FTE's (2018)





**KENNEWICK**  
IRRIGATION DISTRICT







**KENNEWICK**  
IRRIGATION DISTRICT







**KENNEWICK**  
**IRRIGATION DISTRICT**









# KENNEWICK IRRIGATION DISTRICT

Year(s)	Federal Funding	KID Funding	Total	Length (LF / Miles)	Water Savings (Ac-Ft)
2011	\$ 287,500	\$ 759,207	\$ 1,046,707	17,900 3.4	1244
2013-2017	\$ 1,498,800	\$ 4,965,058	\$ 6,463,858	68,508 13.0	1763
2016-2019	\$ 999,000	\$ 2,471,215	\$ 3,470,215	38,016 7.2	1067
2019-2022*	\$ 1,000,000	\$ 2,427,874	\$ 3,427,874	29,726 5.6	1237
<b>Totals:</b>	<b>\$ 3,785,300</b>	<b>\$ 10,623,354</b>	<b>\$ 14,408,654</b>	<b>154,150 29.2</b>	<b>5311</b>
*Pending Final Award and Notice to Proceed					



# Washington State Department of Ecology

## Yakima Basin Integrated Plan Enhanced Water Conservation Element





# Yakima Basin Integrated Plan (YBIP)

## 7 Elements



# Enhanced Water Conservation

- **...strives to improve**
  - *Instream flows in critical stream reaches*
  - *more precise water delivery and operational efficiency*
  - *Drought resiliency*
- **GOAL** – *85,000 acre-feet in the first 10-year Phase*



# Kittitas Reclamation District Canal Lining



Lining of KRD North Branch Canal





# Roza ID Canal Sealing





# Wapato Irrigation Project

## Flow measuring device





# On-Farm Efficiency DRIP irrigation





# Heritage Garden City of Yakima



Photo courtesy of Heritage Gardens in the Columbia Basin website

# YBIP

## 2013 – 2018

Completed Enhanced Conservation Projects

invested \$11,820,000

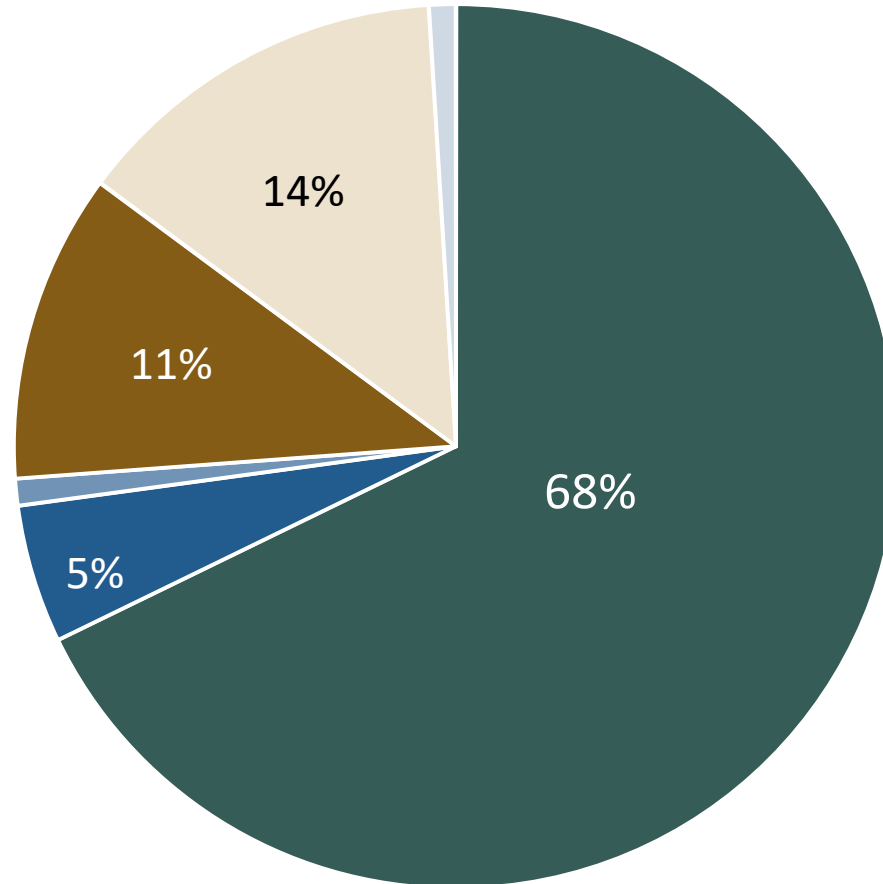
conserved 11,522 acre-feet

~\$1,025 per ac-ft



# Summary – March 2019

## Types of Conservation in Yakima Basin



■ YRBWEP II   ■ WaterSmart   ■ WCFSP   ■ Integrated Plan   ■ Districts   ■ On Farm





# Questions



For further information on the web:

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/>

<http://www.ecy.wa.gov/programs/wr/cwp/YBIP.html>

