

**CBDL**  
**Franklin County Outreach Presentation**  
**Tuesday, June 29, 2021**  
**9:35am-9:45am**

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**Attending:**

Franklin County Commissioners: Clint Didier, Rocky Mullen, Brad Peck

CBDL: Sara Higgins, Mike Schwisow

**Purpose:** Provide Project background and history; report on current progress and needs

**Agenda:**

**9:25am      Introductions—Sara Higgins**

**CBP background and the League's role--Sara Higgins**

**OGWRP: Status, opportunities, and benefits—Mike Schwisow**

**9:45am      Questions & Conclusion**



## **Steps to Complete the Columbia Basin Project**

(As of 2020.07.23)

Full development of 1,029,000 acres in the Columbia Basin Project (CBP) was intended to be phased and take multiple decades. As a federal Reclamation project, CBP development and completion have also always been subject to a prescribed, step-by-step process, each outlined below with a cost estimate and expected length of time to complete.

### **Step One: Authorization (Done)**

This first step is complete. The Columbia Basin Project was authorized by Congress in 1945 for 1,029,000 acres. No further Congressional authorization is required.

### **Step Two: Key Partners Commit to Financial Support (Timeline: One year +)**

Costs (estimated) is the total of Appraisal, Plan of Study, and Feasibility Study below.

#### **Part one: Bureau of Reclamation**

Reclamation requires a 50/50 non-Federal cost share partner for all studies (listed below), but, is not likely to agree to start studies unless they believe there is a feasible alternative and that additional water supply is available. There is an adequate supply of water to serve all 1,029,000 acres of the CBP. The State of Washington issued a storage certificate for 6.4 million acre-feet to Reclamation for the CBP in 1938. Reclamation has secondary permits for 3.2 million acre-feet for Project lands now served. Reclamation would need an additional secondary permit from the Washington State Department of Ecology for nearly 2 million acre-feet to complete the Project.

#### **Part two: State of Washington**

Based on the good working relationship to date, Reclamation's most likely cost share partner is the State of Washington through the Office of Columbia River in the Department of Ecology. Either the Governor would request funding to initiate the cost share process for studies, or the Legislature could, but either approach would require Legislative approval. *(It should be noted that the study process is lengthy and would require significant financial investment spanning several Legislative cycles necessitating repeated buy-in from the Governor, the Washington State Senate, and the Washington State House of Representatives.)*

### **Step Three: Appraisal Study (Timeline: Two years +)**

Costs (estimated) included in Step Five.

Bureau of Reclamation must agree to initiate an Appraisal Study and work with partners, who in this instance, would be the State of Washington, the three Columbia Basin Project Irrigation Districts and stakeholders, including the Columbia Basin Development League. The Appraisal Study calculates the size and scope of the project along with possible viable (Federal) solutions. The Appraisal Study is programmed two years in advance into the Reclamation "Investigations Program". When a potential solution is identified the process moves to a "Plan of Study" to prepare for a Feasibility Study.

**Step Four: Plan of Study (Timeline: Two years +)**

Costs (estimated) included in Step Five.

The “Plan of Study” is a guidance document that lays the foundation for doing a Feasibility Study. The partners, Congress and the Washington State Legislature, would fund the study.

**Step Five: Feasibility Study (Timeline: Five years +)**

Costs (estimated) for Steps Three, Four and Five: \$25 million

A detailed evaluation of all aspects of the project--consistent with requirements, including:

- Principles, Requirements and Guidelines for Water Implementation Studies (PR&G)
- National Environmental Policy Act
- National Historic Preservation Act
- Fish & Wildlife Coordination Act
- Endangered Species Act

To meet these requirements, the planning partners identify alternatives and determine which options are viable and would qualify for Federal funding. The planning partners must also complete:

- Planning report (design work and costs)
- Section 7 consultation
- Environmental impact statement (EIS)

The completed Feasibility Study (and Record of Decision) is submitted to the Secretary of the Interior and the Office of Management & Budget who determines whether it is submitted to Congress for potential funding.

For comparison purposes, the Odessa Subarea Special Study Feasibility Study took nearly seven years and \$14 million to complete. The Record of Decision signed by Regional Director Lorri Gray identified a preferred alternative which was the basis for the Odessa Ground Water Replacement Program. Feasibility Study language emphasized funding would come from non-Federal sources and named the State of Washington and irrigators. They expected the State to fund construction of conveyance (widening canals, siphons, and other structures) and irrigators to fund distribution from the canal to the farm through local improvement districts, loans, or other funding mechanisms. As the benefit/cost ratio raised with better construction cost figures, federal funding became eligible.

**Step Six: Construction (Timeline: Ten years +)**

Costs (estimated): \$3 to \$5 billion

Difficult to estimate as costs can only be determined once all studies are completed, the benefit/cost ratio is above “one” and a build option selected. Additionally, costs for off-channel storage construction may need to be included if it is found that Columbia River flows are not adequate to support diversions during the irrigation season and flow adjustments cannot be arranged.

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## **Finishing the Odessa Ground Water Replacement Program (OGWRP)**

**\$255,000,000 is needed for the Odessa Ground Water Replacement Program:**

- **To change the irrigation source from failing wells on a depleting aquifer to ample surface water supplied by the Columbia Basin Project**
- **To allow continued production of high value crops on 97,000 acres**
- **To conserve remaining ground water for domestic, municipal and industrial uses in rural communities**

**OGWRP is “shovel ready”.**

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(As of 2020.07.23)

The Columbia Basin Project (CBP) is the water source for thousands of farmers. While waiting for continued development of the CBP, decades ago, the Department of Ecology issued farmers permits to use ground water to irrigate over 100,000 acres. The Odessa aquifer declined quickly and now threatens water availability for over 180,000 people and over a dozen rural communities including Lind, Odessa, Connell, Othello, Warden, Hatton, Wilson Creek, Moses Lake, and others.

In 2001 Washington State Gov. Locke launched the Columbia River Initiative looking for additional water to address needs in Eastern Washington. After negotiating with the Bureau of Reclamation and Columbia Basin Project irrigation districts, a Memorandum of Understanding was signed outlining water for municipal and industrial permits, in-stream flows, and drought relief. The Odessa aquifer was deemed critical because of its rapid decline. The three agencies agreed to a program that addressed the looming economic and environmental catastrophe posed by the depleting Odessa aquifer. The project was limited to replacing ground water supplies (water from the Odessa aquifer) with water from the Columbia Basin Project. As a replacement program, there would be no new irrigated land as the partners agreed to acre-for-acre ground water replacement only.

OGWRP has two large construction elements:

- 1) expand and improve East Low Canal to meet additional delivery capacity
- 2) build pump stations and pipelines on several lateral systems to deliver water to farms now using water from a depleting aquifer

To date, the State of Washington invested \$120 million for all necessary studies and consultation and East Low Canal widening. In addition, the East Columbia Basin Irrigation District invested \$16 million for construction of an initial pipeline and pumps. (*This investment is repaid by landowners.*) What remains is the construction of gravity and pumped delivery systems to replace 70,000 acres with CBP irrigation water to farms: more than 10,000 acres are already covered by conservation programs.

<b>Lateral:</b>	<b>Proposed Acres:</b>	<b>Estimated Cost<sup>1</sup>:</b>
EL 11.8	3,000	\$12,900,000
EL 22.1	19,000	\$70,200,000
EL 40.2	11,000	\$41,600,000
<del>EL 47.5</del>	<del>10,500</del>	<del>\$21,000,000 (done)</del>
EL 54.0	8,000	\$28,100,000
EL 73.3	18,000	\$62,300,000
EL 79.2	10,000	\$31,400,000
EL 86.4	5,000	\$ 9,000,000
<b>TOTAL:</b>	<b>74,000 (approx.)</b>	<b>\$255,500,000 (2019 approx.)</b>

### **OGWRP is a Great Infrastructure Investment Program**

Impacted by COVID-19, the U.S. economy is at a standstill: sliding quickly into recession, or worse. Congress and the Biden Administration have pumped trillions of dollars into the economy to help until the COVID-19 pandemic has passed.

Infrastructure investment programs, as part of a stimulus package, are designed to immediately affect the economy by putting as many people to work in as short a period as possible. The most recent example was during the 2008 Great Recession. Congress enacted the *American Recovery and Reconstruction Act of 2009*. ARRA was a \$787 billion economic stimulus package funding investments in infrastructure, energy, healthcare, education and science, and other sectors. ARRA looked for projects that were “shovel ready”: those fully permitted and with federal approval including complying with the National Environmental Policy Act.

The OGWRP components include completed NEPA compliance, Record of Decision, design, rights-of-way access and other factors in state and federal law. This included a detailed planning report based on the *Principles, Requirements and Guidelines for Water and Land Related Resources Implementation Studies* (PR&G) along with an environmental impact statement as well as an Endangered Species Act Sec. 7 consultation with U.S. Fish and Wildlife Service and NOAA Fisheries.

The Odessa Ground Water Replacement Program has completed required compliance for design, determining rights-of-way access and construction. OGWRP offers an opportunity for infrastructure investment in a federally authorized project to address a nationally-recognized economic, environmental and social crisis, while stimulating the state and federal economies by rescuing a vibrant rural economy dependent on a declining aquifer.

We request \$255,000,000 for OGWRP be included in an infrastructure stimulus program.

<sup>1</sup> Costs are preliminary engineering estimates and do not include power facilities which could range from \$60 to 75 million.

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For More Information: Columbia Basin Development League | [www.cbdl.org](http://www.cbdl.org) | 509.782.9442 | [sara@cbdl.org](mailto:sara@cbdl.org)

## Columbia Basin Project Water Infrastructure Projects

As of April 13, 2021

Current Columbia Basin Project development generates over \$5 billion in annual economic activity. The Project is owned by the U.S. Bureau of Reclamation and managed by three irrigation districts. Located in Eastern Central Washington the Columbia Basin Project was authorized for 1,029,000 acres. The existing infrastructure serving about 680,000 acres is aging and, in some instances, over 70 years old. Additionally, while some farmers waited for continued Project development, they obtained permission to dig deep wells for irrigation. However, they are drawing from an aquifer that is depleting--creating an economic and environmental crisis.

The list below highlights Columbia Basin Project water infrastructure projects that could be started and/or completed in the next five years with adequate federal funding.

**FIVE YEAR TOTAL: \$443,293,758**

### System-Wide Projects:

- **SCADA Upgrade**--\$7,000,000 *included in CBDL's FY22 appropriations request*  
An unfunded mandate to upgrade the CBP supervisory control and data acquisition system to meet Federal Information Security Management Act requirements for Department of Interior regulatory compliance.
- **Trail Lake Project**-- \$3,815,759 *included in CBDL's FY22 appropriations request*  
Address failing concrete infrastructure and provide alternate route to convey water by breaching the main canal. The project would reduce the likelihood of damage or failure to the canal system, improve reliability of the canal system and reduce the operation and maintenance costs associated with this section of the Main Canal.
- **Keys Pump-Generating Plant Modernization**--\$26,816,000  
Fund part of a major upgrade to aging infrastructure that lifts water from Lake Roosevelt to Banks Lake for irrigation water supply: PGP Governor, Exciters, Protective Relays and Unit Controls; PGP Phase Reversal Switches High Side (in Yard); PGP Coaster/Reverse Flow Gate Refurbs, Bypass Valves and Piping; PGP Plant Discharge Tube and Draft Tube Rehab; Crane Upgrades; PGP Fire Alarm Upgrade; PGP Station Service Batteries; PGP Station Service (DP2A, DP6A, DP10A); CO2 System Replacement The cost represents a portion of the irrigation district/landowner share over the next 5 years.

### East Columbia Basin Irrigation District Projects:

- **Conservation Pipelines 2021-2022**-- \$1,150,384  
Replace open laterals with 21,135 linear feet of PVC pipe, conserving 1209 af of water per year and 619,192 kw hours annually. Water conservation creates irrigation and wildlife water supplies with no new diversions from the Columbia River.
- **EL18 Crab Creek Siphon Repair**-- \$1,482,481  
Repair/replace 1,000 linear feet of a leaking concrete siphon. Conserves 794 af of water annually, as well as upgrades failing infrastructure.

- **Water Conservation Projects-- \$25,000,000**  
Implement additional water conservation projects including pipelines, geomembrane linings, polyurea sealings and new water control structures to minimize operational; and conveyance losses. Water conservation creates irrigation and wildlife water supplies with no new diversions from the Columbia River.
  
- **Odessa Ground Water Replacement Program (OGWRP)**  
Continue implementation of an aquifer rescue mission, transferring deep well irrigation drawing from a depleting aquifer to ample federal CBP supplies. Allows production of high value crops to continue on 87,000 acres, conserving the remaining ground water for domestic, municipal and industrial uses in rural communities. The State of Washington is an active partner already investing \$120 million in the program. Landowners will also share in the cost of completing the distribution systems. Note: The following delivery system projects have all NEPA EIS, ESA Sec. 7 consultation and State of Washington water rights processes completed.
  - EL 11.8 Delivery System-- \$12,973,750  
Construct Pumped Delivery System to replace 3,600 ac of groundwater withdrawals with CBP irrigation water.
  - EL 22.1 Delivery System-- \$70,203,188 *included in CBDL's FY22 appropriations request*  
Construct Pumped Delivery System to replace 19,345 ac of groundwater withdrawals with CBP irrigation water.
  - EL 40.2 Delivery System-- \$41,627,495  
Construct Pumped Delivery System to replace 11,306 ac of groundwater withdrawals with CBP irrigation water
  - EL 54.0 Delivery System-- \$28,104,321  
Construct Pumped Delivery System to replace 8,042 ac of groundwater withdrawals with CBP irrigation water
  - EL 73.3 Delivery System-- \$62,384,214  
Construct Pumped Delivery System to replace 18,786 ac of groundwater withdrawals with CBP irrigation water
  - EL 79.2 Delivery System-- \$31,384,844 *included in CBDL's FY22 appropriations request*  
Construct Pumped Delivery System to replace 10,760 ac of groundwater withdrawals with CBP irrigation water
  - EL 86.4 Delivery System-- \$9,024,332  
Construct Pumped Delivery System to replace 5200 ac of groundwater withdrawals with CBP irrigation water
  - ELC Headgate Automation-- \$1,676,990 *included in CBDL's FY22 appropriations request*  
Automate East Low Canal (ELC) gravity headgates to adjust for fluctuations resulting from new OGWRP pump plant diversions along the ELC. Will create consistent lateral flows regardless of canal fluctuations, reducing waste and labor and resulting in water conservation
  - East Low Canal County Road Bridges - \$23,000,000 *included in CBDL's FY22 appropriations request*  
Replace 10 county road bridges to span East Low Canal which has been widened to provide additional carrying capacity for the OGWRP. Existing bridges are bottlenecks to providing adequate flow rates. Increased capacity is required to serve distribution systems that will deliver Project water supplies and curtail aquifer depletion. *Note: this project is occurring within the boundaries of ECBID, but it is an Adams and Grant counties project.*



### Quincy Columbia Basin Irrigation District Projects:

- **Conservation Geomembrane Lining - 2021-2022--\$1,250,000**  
Install geomembrane liner in open laterals for water conservation and federal infrastructure improvements. Creates irrigation and wildlife water supplies with no new diversions from Columbia River.
- **Conservation Pipelines - 2021-2022--\$1,250,000**  
Replace open laterals with PVC pipe for water conservation and federal infrastructure improvements. Creates irrigation and wildlife water supplies with no new diversions from Columbia River.
- **Frenchman Hills Pumping Plant Unit #1 and #2 Motor Controls -- \$500,000**  
Replace aging infrastructure resulting in federal infrastructure improvements.
- **Conservation Pipelines, Lateral Lining, and Sealing Concrete-- \$30,000,000**  
Replace open laterals with PVC pipe, line with Geomembrane liner and seal aging, cracked concrete for water conservation and federal infrastructure improvements. Creates irrigation and wildlife water supplies with no new diversions from Columbia River.
- **W25 Siphon Repair-- \$2,500,000**  
Repair/replace 3,300 linear feet of existing leaking concrete siphon to conserve water as well as upgrade failing infrastructure. Creates irrigation and wildlife water supplies with no new diversions from Columbia River.
- **Pumping Plant Motor Controls and Power Facilities-- \$15,000,000**  
Replace aging infrastructure resulting in federal infrastructure improvements.
- **Pumping Plant Bridge Cranes-- \$1,250,000**  
Replace aging infrastructure resulting in federal infrastructure improvements.
- **Homestead Pump Plant and Small Hydro Power Generation-- \$11,000,000**  
Installing a pumping plant and small hydro power generation plant for federal infrastructure improvements. Creates irrigation reliability and provides renewable hydro power.

### South Columbia Basin Irrigation District Projects:

- **Potholes East Canal Headworks Headwall Repair--\$2,000,000**  
Repair concrete headwall at PEC Headworks. This structure failed in 2017.
- **Pump Plant Discharge Manifold Replacement--\$3,000,000**  
Replace steel manifolds at 15 pump plants. Replacing the manifolds maintains flows to all project purposes without interruption. The manifolds are nearly 65 years old.
- **Conservation Pipelines and Geomembrane Lining--\$5,000,000**  
Replace open laterals with PVC pipe and geomembrane lining. Water conservation and federal infrastructure improvements. Creates irrigation and wildlife water supplies with no new diversions from the Columbia River.
- **Weed Screens--\$1,000,000**





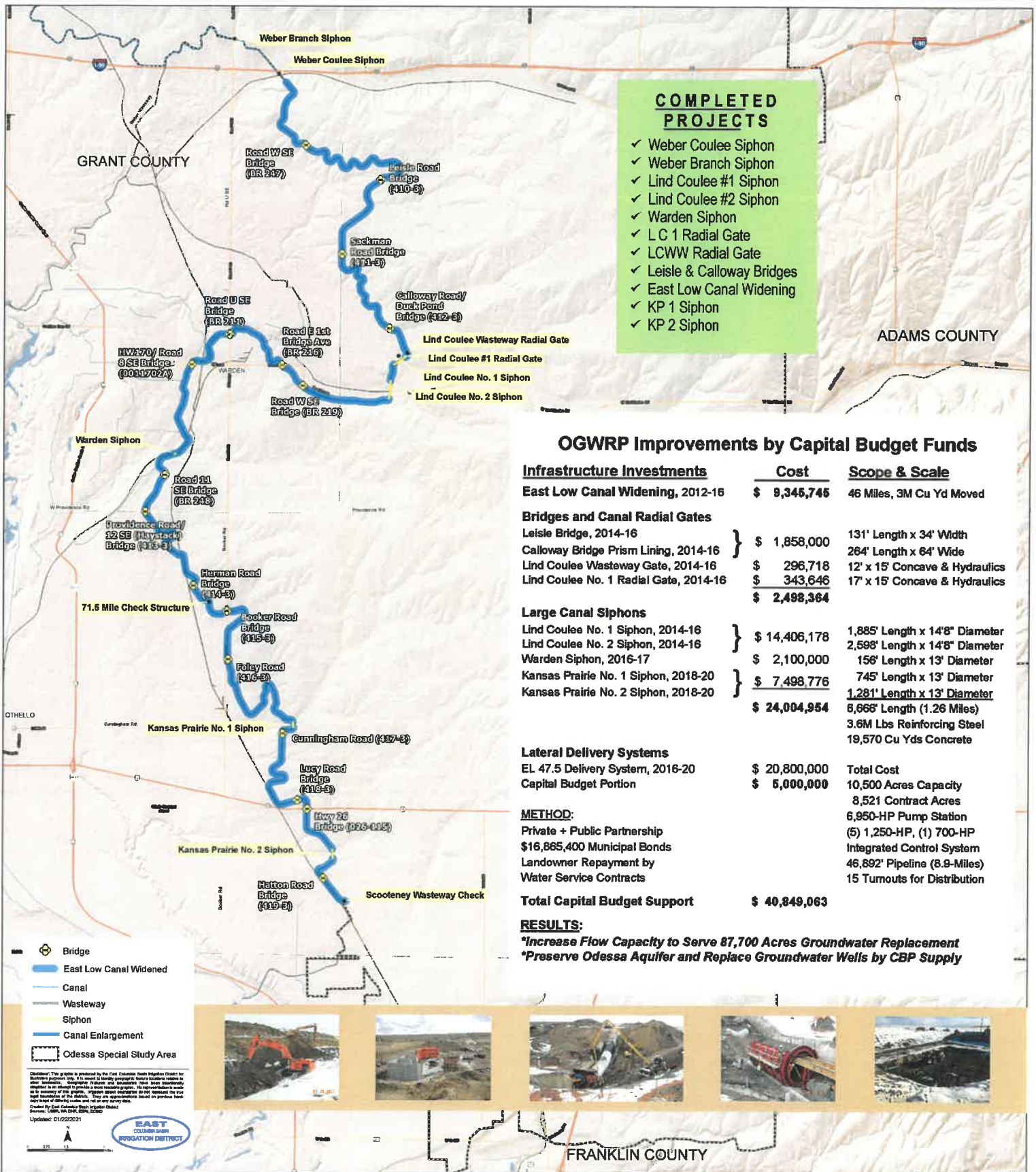
Build and install weed screens for 20 laterals. Weed screens enhance delivery efficiency and reduce aquatic chemical treatment.

- **Radar Pump Plant Pump--\$2,000,000**  
Add redundancy and capacity to high lift pump plant. The plant was designed to house an additional pump.
- **WB44 Siphon Repair--\$10,000,000**  
Replacement of 6,000 linear feet of aged Prestressed Concrete Cylinder Pipe.
- **Ringold Storage and Wasteway Repair--\$10,000,000**  
Re-regulation reservoir and replacement of failed emergency wasteway on the Potholes Canal.
- **System Automation and Flow Measurement--\$1,000,000**  
Install canal automation and flow measurement. Automation and measurement will improve efficiency, save water and power, and provide higher level of control.
- **City of Othello Sewer Line Crossings over Potholes Canal--\$900,000**  
Replace two sewer crossings over Potholes Canal to provide higher level of safety, lower probability of leak or spill. Sewer crossing over large canals are high risk. City has extremely high liability in event of a leak or spill.

###



# East Columbia Basin Irrigation District Odessa Groundwater Replacement Program (OGWRP) East Low Canal Improvements (01/22/2021)



- COMPLETED PROJECTS**
- ✓ Weber Coulee Siphon
  - ✓ Weber Branch Siphon
  - ✓ Lind Coulee #1 Siphon
  - ✓ Lind Coulee #2 Siphon
  - ✓ Warden Siphon
  - ✓ L C 1 Radial Gate
  - ✓ LCWW Radial Gate
  - ✓ Leisle & Calloway Bridges
  - ✓ East Low Canal Widening
  - ✓ KP 1 Siphon
  - ✓ KP 2 Siphon

## OGWRP Improvements by Capital Budget Funds

Infrastructure Investments	Cost	Scope & Scale
<b>East Low Canal Widening, 2012-16</b>	<b>\$ 9,345,745</b>	46 Miles, 3M Cu Yd Moved
<b>Bridges and Canal Radial Gates</b>		
Leisle Bridge, 2014-16	\$ 1,858,000	131' Length x 34' Width
Calloway Bridge Prism Lining, 2014-16		264' Length x 64' Wide
Lind Coulee Wasteway Gate, 2014-16		12' x 15' Concave & Hydraulics
Lind Coulee No. 1 Radial Gate, 2014-16	\$ 343,646	17' x 15' Concave & Hydraulics
	<b>\$ 2,498,364</b>	
<b>Large Canal Siphons</b>		
Lind Coulee No. 1 Siphon, 2014-16	\$ 14,406,178	1,885' Length x 14'8" Diameter
Lind Coulee No. 2 Siphon, 2014-16		2,598' Length x 14'8" Diameter
Warden Siphon, 2016-17	\$ 2,100,000	156' Length x 13' Diameter
Kansas Prairie No. 1 Siphon, 2018-20	\$ 7,498,776	745' Length x 13' Diameter
Kansas Prairie No. 2 Siphon, 2018-20		1,281' Length x 13' Diameter
	<b>\$ 24,004,954</b>	8,666' Length (1.26 Miles) 3.6M Lbs Reinforcing Steel 19,570 Cu Yds Concrete
<b>Lateral Delivery Systems</b>		
EL 47.5 Delivery System, 2016-20	\$ 20,800,000	Total Cost
Capital Budget Portion	\$ 5,000,000	10,500 Acres Capacity 8,521 Contract Acres 6,950-HP Pump Station (5) 1,250-HP, (1) 700-HP Integrated Control System 46,892' Pipeline (8.9-Miles) 15 Turnouts for Distribution
<b>METHOD:</b>		
Private + Public Partnership		
\$16,865,400 Municipal Bonds		
Landowner Repayment by Water Service Contracts		
<b>Total Capital Budget Support</b>	<b>\$ 40,849,063</b>	

**RESULTS:**  
*\*Increase Flow Capacity to Serve 87,700 Acres Groundwater Replacement*  
*\*Preserve Odessa Aquifer and Replace Groundwater Wells by CBP Supply*



Disclaimer: This graphic is provided by the East Columbia Basin Irrigation District for the Odessa Groundwater Replacement Program. It is intended to provide a general overview of the project and is not intended to be used as a legal document. The District and its members do not warrant the accuracy or completeness of the information provided. The District and its members do not assume any liability for any errors or omissions in this graphic. This graphic is provided for informational purposes only and is not intended to be used as a legal document. The District and its members do not assume any liability for any errors or omissions in this graphic. This graphic is provided for informational purposes only and is not intended to be used as a legal document. The District and its members do not assume any liability for any errors or omissions in this graphic.



# Agriculture in the Columbia Basin

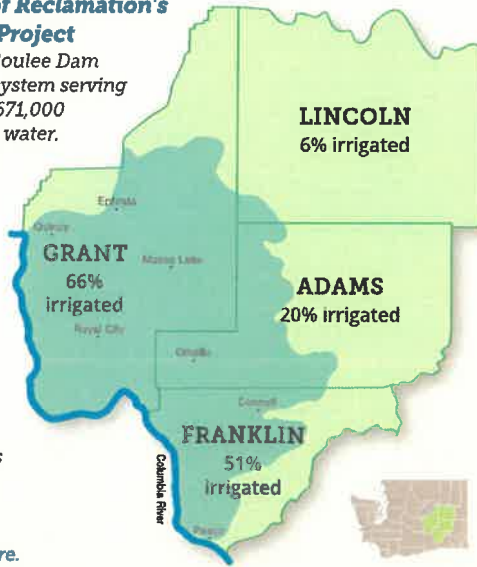
## The U.S. Bureau of Reclamation's Columbia Basin Project

includes the Grand Coulee Dam and a vast irrigation system serving the region. Roughly 671,000 acres receive surface water. Additional acres use groundwater.

Beyond reliable irrigation, the project provides and manages water for:

- Municipalities
- Industries
- Flood and streamflow
- Endangered species
- Recreation
- Power production

Visit [cbd.org](http://cbd.org) for more.



## THE VALUE OF WATER



Groundwater is threatened by a declining aquifer, a problem for agriculture and rural communities. Efforts to replace groundwater are underway.

## THE VALUE OF AGRICULTURE<sup>1</sup>

Over **\$3 billion** in production value.

Nearly **3 million** acres in production.



**3,500+** farms

**Grant County:**  
#2 in WA  
#10 nationally<sup>†</sup>  
by value of ag production.

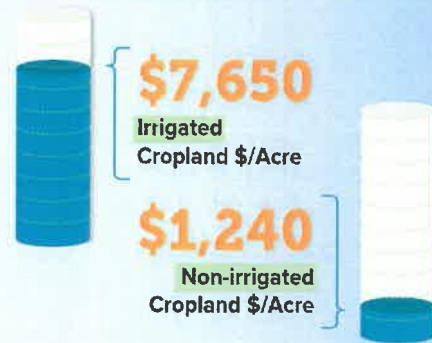
**Lincoln County:**  
#2 in WA  
Top 10 U.S. county  
for wheat production.

Farms employ more than **13,000**

That is **1 in 5 jobs.**

<sup>1</sup>The value of agriculture within Adams Grant, Franklin and Lincoln counties. Sources: <sup>\*</sup>NASS 2017 data <sup>\*\*</sup>USDA NASS, WSDA <sup>†</sup>USDA NASS 2019 data

## Comparative Land Values:



WA state irrigated cropland **2x the value** of US cropland value

This project serves **47%** of all irrigated cropland in the state.

## TOP 5 COMMODITIES in the Columbia Basin<sup>1</sup>



**1 APPLES**  
\$839.1 million

Apples are the **#1 crop** in Washington State. **#1 state** in the nation.



**2 POTATOES**  
\$664.6 million

Nearly **2/3** of Washington's potatoes are grown in this region and **20%** of all US potatoes.



**3 WHEAT**  
\$313.3 million



**4 HAY**  
\$225.9 million

Wheat is the **#1 crop by acres** - over **1/3** of Washington's wheat is grown in this region.



**5 ONIONS**  
\$163.6 million

# East Columbia Basin Irrigation District Odessa Groundwater Replacement Program (OGWRP) Delivery Systems (02/24/21)

