WAPATO DIVERSION DAM

Yakima River Basin Water Enhancement Project (YRBWEP)

Wapato Diversion Dam Rehabilitation

3/12/2021
AGENDA

1. Background Information
2. General Schedule
3. Short Term Efforts
4. Long Term Efforts
PROJECT TEAM

Bureau of Indian Affairs (BIA)  
[lead federal agency]

Bureau of Reclamation (BOR)

Yakama Nation

Background Information
PROJECT RELEVANCE

- Main diversion for 140,000 acres of irrigated farmland.
- Single point of failure for irrigation deliveries.
- Highest priority project in the BIA irrigation inventory.
- Originally constructed in 1917
PROBLEMS AND ISSUES / GOALS AND OBJECTIVES

- Operator Safety
- Fisheries Issues
- Operational Issues
- Sediment Transport
- Stability Concerns
- Flooding Concerns
PRIMARY FEATURES

1. Main Canal Headworks
2. West Diversion
3. East Diversion
4. Earthen Embankment
5. Overflow Spillway
6. Rock Weirs

North
INITIAL PROJECT SCHEDULE AND PHASING

<table>
<thead>
<tr>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 - Concept Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 - Alternatives Analysis and NEPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Site Investigations &amp; Cofferdams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3a - Final Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3b - Permitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 4 - Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SHORT-TERM OBJECTIVES

Short-Term Objectives (Fall 2021)

- 6-month design/construction effort
- 5- to 10-year design life
- Joint BIA / Yakama Nation Effort
- Headworks rehabilitation
  - Headgate actuator replacement
  - Headworks concrete repair
  - Controls / electrical system replacement
  - Sediment removal
- Site Conditions Investigation:
  - Concrete coring
  - Geotechnical boring / seismic refraction
  - Visual Inspection
  - Survey / bathymetry
SHORT-TERM WORK PLAN

1. River Crossing
2. Existing Access Route
3. Use Existing Materials?
4. Use Bathymetry to Select Cofferdam Sites

PRELIMINARY
SHORT-TERM WORK PLAN

5. East Cofferdam
6. East Dam Coring
7. Move Cofferdam to West Channel
8. Headgate Repairs
9. East Dam Coring
10. Channel Maintenance
11. Inspect Ladders
LONG-TERM OBJECTIVES

- 3- to 5-year design/construction effort
- 80 to 100-year design life
- Diversion long-term functionality
  - Operational issues / operator safety
  - Structural stability / flooding concerns
  - Sediment transport / fish passage
- Analyze alternatives
- NEPA compliance (EA)
- Identify a preferred action
- Final Design
- Construction
REVIT MODEL – EXISTING HEADWORKS
THANK YOU...

Any Questions? Comments?
GENERAL LOCATION