

**Anderson Dam Tunnel Project** 

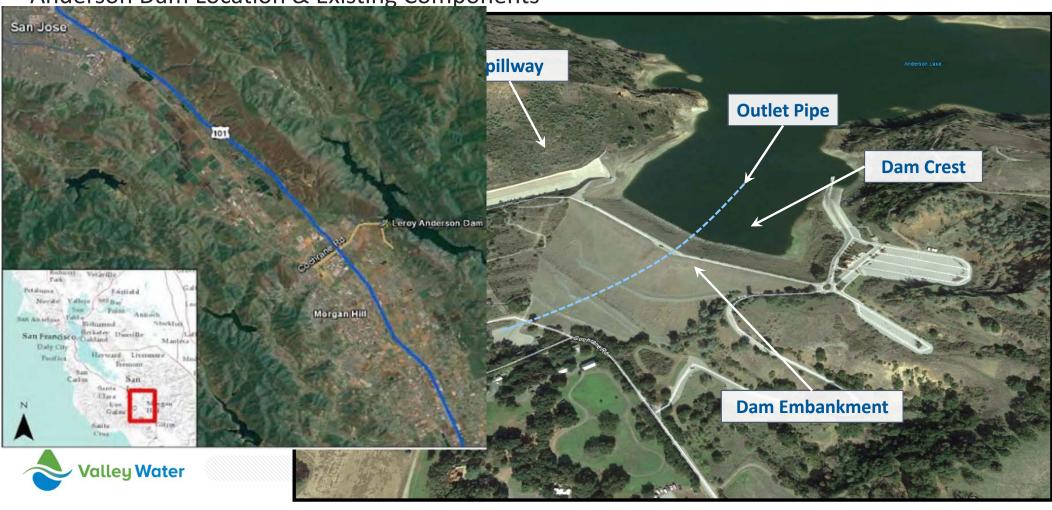
**Prequalification Conference (Optional)** 

August 27, 2020



#### **Project Background**

Anderson Dam Location & Existing Components



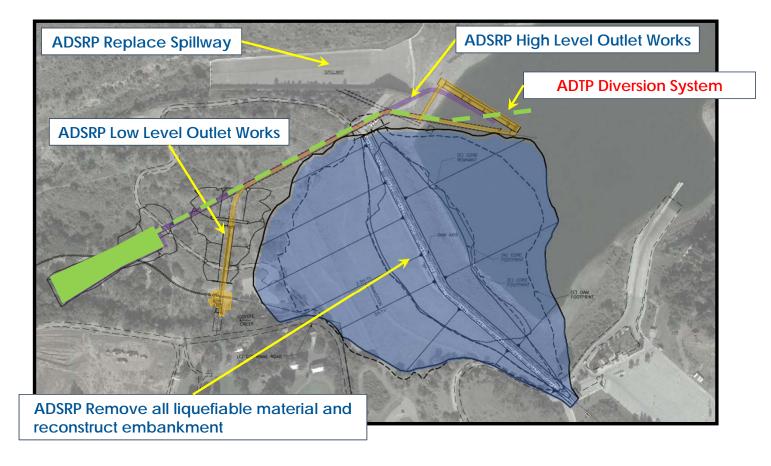
#### **Project Background**

Anderson Dam Seismic Retrofit Project

- Anderson Dam forms Anderson Reservoir holds 90,000 acre-feet of water when full and is the largest of Valley Water's reservoirs.
- In 2012, following a seismic stability analysis, Valley Water began plans to retrofit the dam to meet current safety standards, creating the Anderson Dam Seismic Retrofit Project (ADSRP)
- In 2016, following geotechnical and geological investigations during the design phase it became apparent that an extensive remediation involving the removal of most of the dam embankment and its replacement will be necessary. Also, after the 2017 incident in Oroville, the Anderson spillway was evaluated, and replacement to meet current safety standards will also be undertaken.
- The ADSRP design phase is currently developing the 90% documents.



#### Anderson Dam Seismic Retrofit Project Components





#### **Project Background**

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Valley Water Response to FERC Order

On February 20, 2020, the Federal Energy Regulatory Commission (FERC) issued an Order to Valley Water to undertake early implementation of interim risk reduction measures associated with ADSRP immediately, which are as follows:

- Immediately lower the reservoir to a restriction elevation of 565 feet;
- Lower reservoir to deadpool beginning no later than Oct 2020;
- Expedite design and construct a new outlet tunnel (Anderson Dam Tunnel Project); and
- Implement dam safety directives while securing water supplies and minimize environmental effects until completion of the ASDRP.
- In June 2020, Valley Water creates the Anderson Dam Federal Energy Regulatory Commission Order Compliance Project (FOCP) and adopts a CEQA Exemption to safely drain and maintain the lowest practicable reservoir operating level while minimizing water supply and environmental impacts.

# Anderson Dam FOCP Objectives

Minimize impacts to the environment and water supply from revised interim operations of Anderson Reservoir prior to the construction of the ADSRP.

Provide the ability to better control the operating water surface elevation within Anderson Reservoir.



Reduce public safety risk to communities downstream of Anderson Dam prior to the construction of the ADSRP.

Safely, reliably and expeditiously drawdown Anderson Reservoir and maintain a lower water surface elevation.



#### Anderson Dam FOCP

**Project Construction Delivery** 

The construction improvements for the Anderson Dam FOCP all must be completed prior to initiating construction for the ADSRP and have been grouped into 5 construction sub-projects:

- Anderson Dam Tunnel Project;
- Coyote Percolation Dam Replacement Project;
- Cross Valley Pipeline Extension Project;
- Coyote Creek Flood Management Measures Project; and
- Coyote Creek Stream Augmentation Fish Protection Measure Project



#### **Project Description**

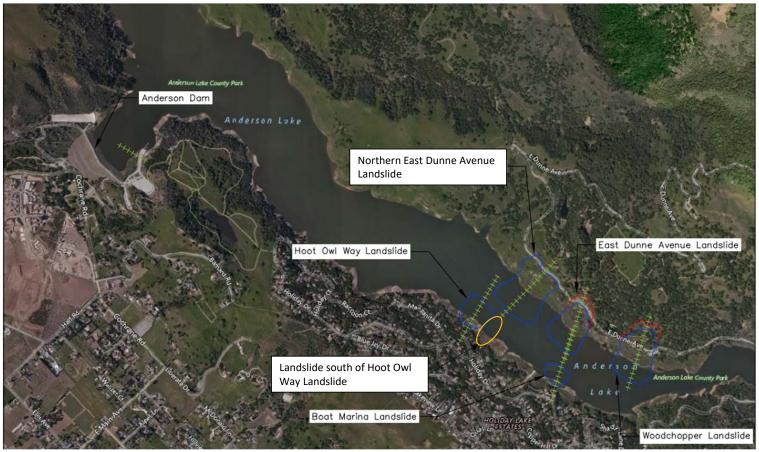
Anderson Dam Tunnel Project

#### The ADTP consists of the following improvements:

- Anderson Dam Diversion Tunnel;
- Coyote Creek & Bank Erosion Modifications;
- Anderson Reservoir Band and Rim Stability Improvements; and
- Anderson Dam Existing Intake Structure Modifications.

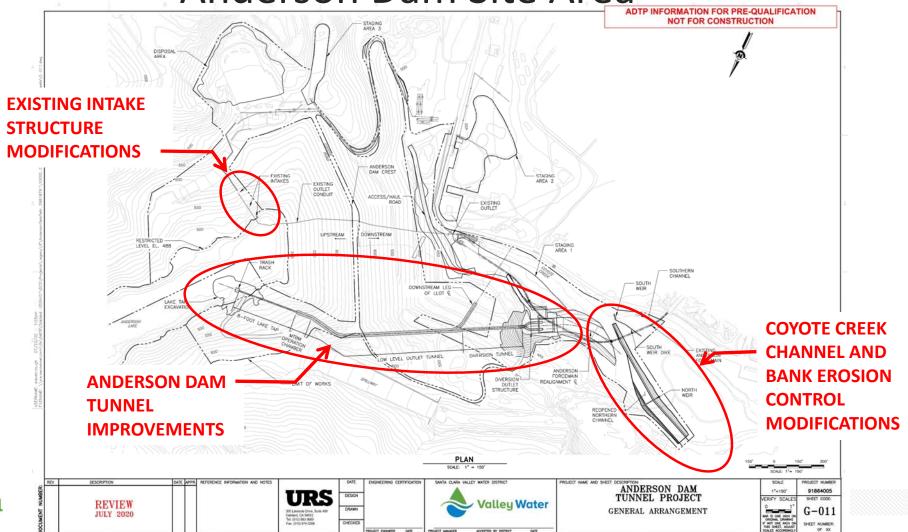


## Project Site Overview



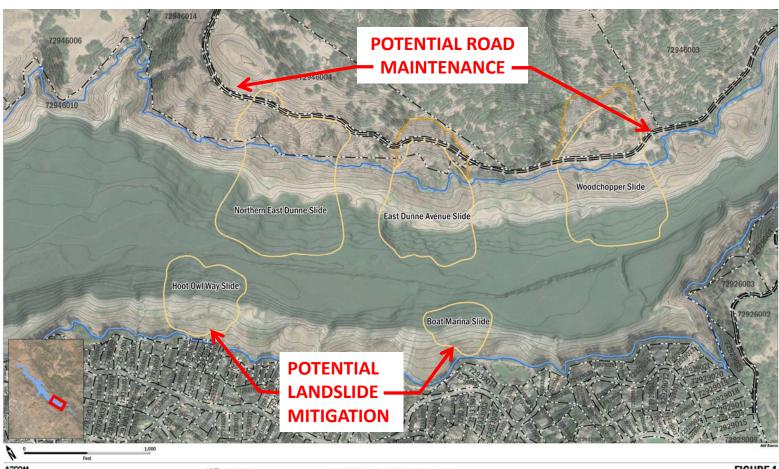


Anderson Dam Site Area





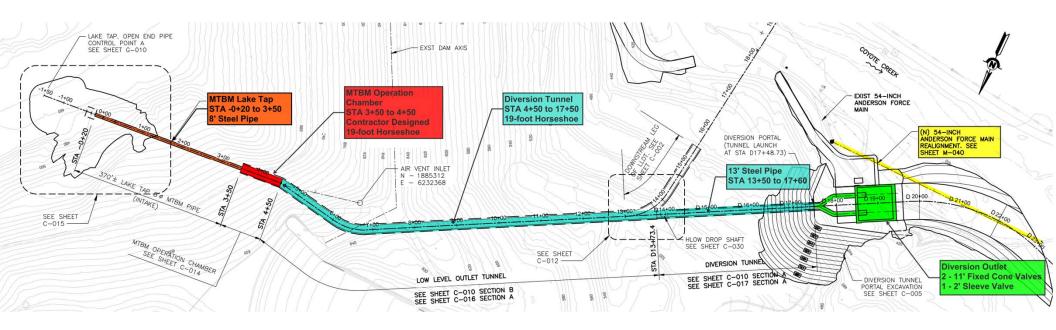
## Rim Stability Improvements





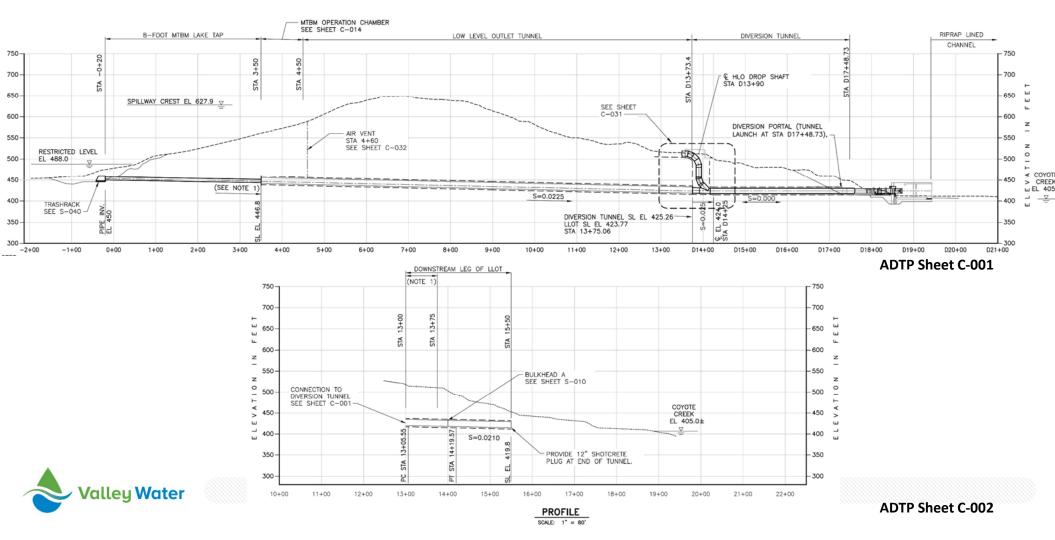


## **ADTP Diversion System Plan**

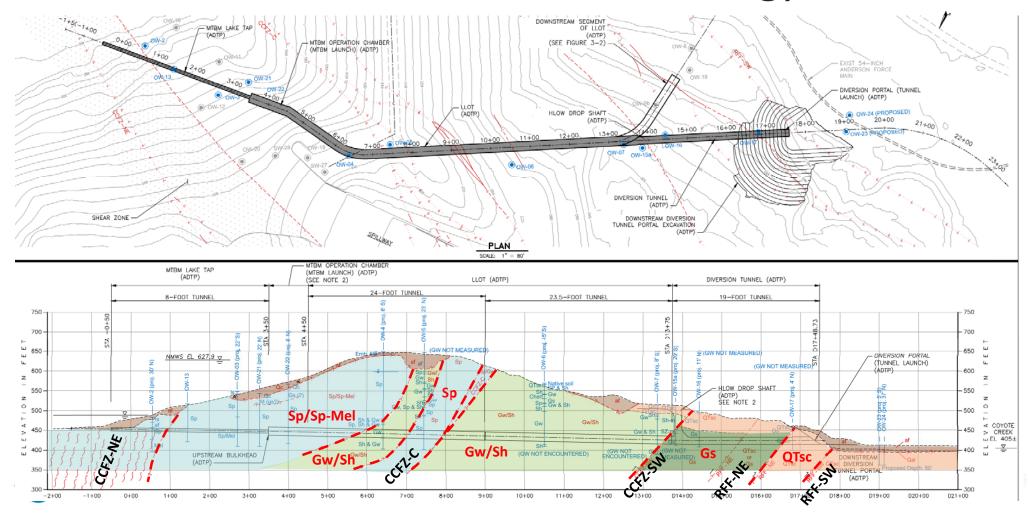




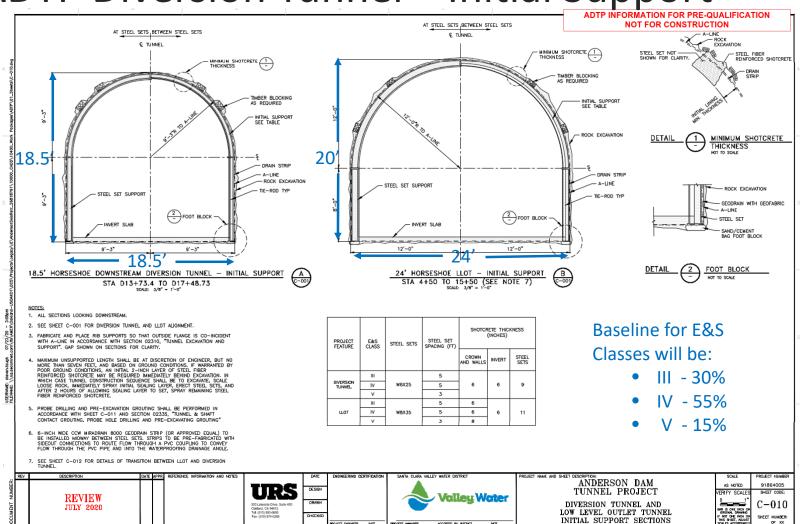
## **ADTP Diversion System Profile**



## **ADTP Diversion Tunnel Geology**

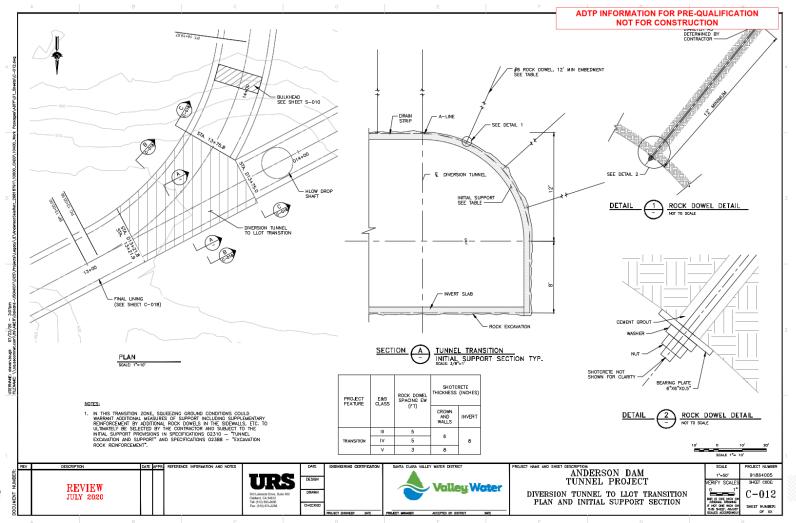


## ADTP Diversion Tunnel – Initial Support



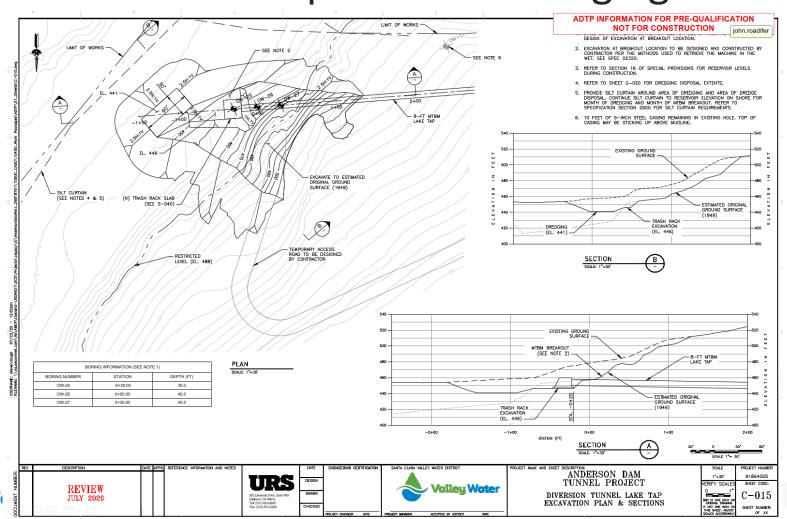


## Diversion Tunnel/LLOT Transition – Initial Support



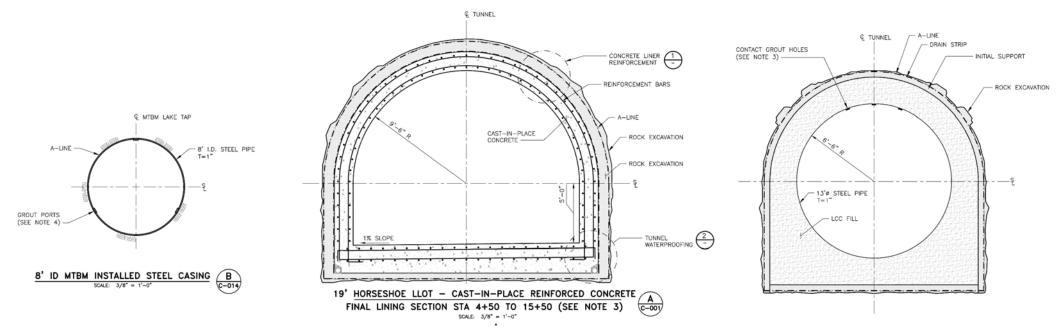


## ADTP Lake Tap Intake – Dredging





## ADTP Diversion Tunnel Final Lining Sections



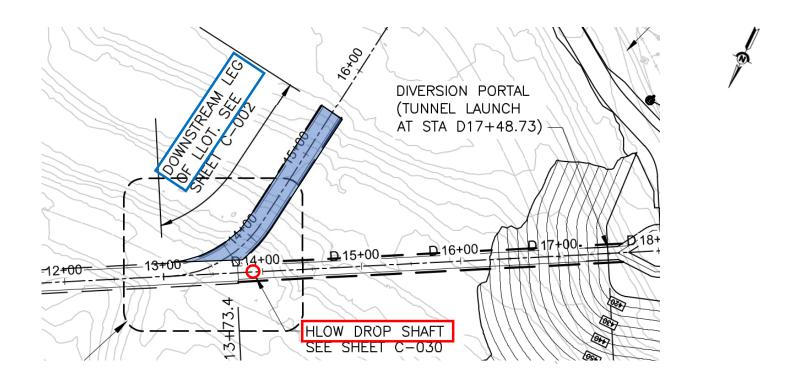
UPSTREAM 400' MIDDLE 900' DOWNSTREAM 400'



ADTP Sheets C-016, C-017

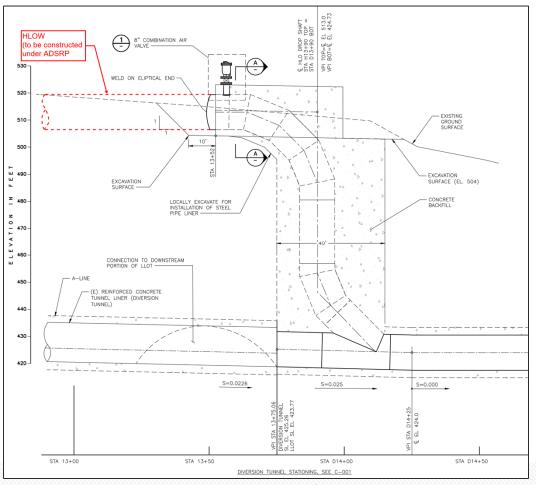
13' CIRCULAR DOWNSTREAM DIVERSION TUNNEL - STEEL PIPE A
FINAL LINING SECTION: STA D13+73.4 TO D17+48.73

#### Future Connections to ADSRP HLOW and LLOW





#### **Future Connection to ADSRP HLOW**





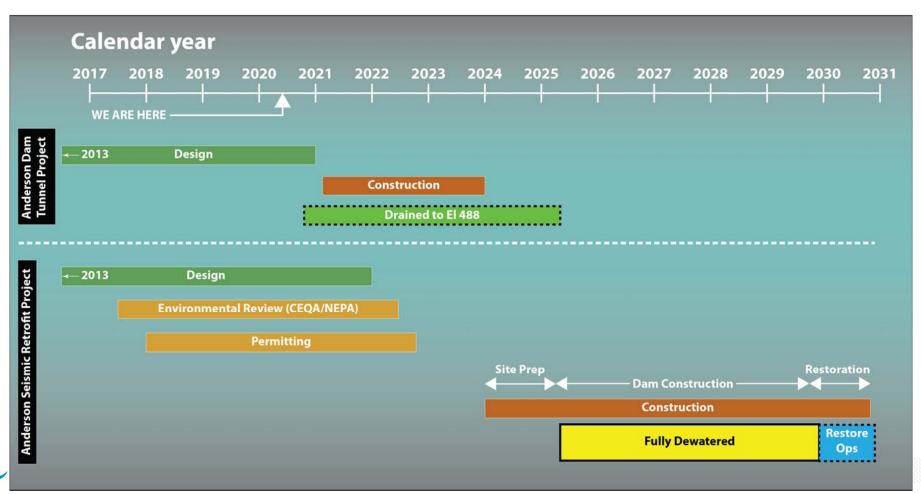
**HLOW Drop Shaft** 

## ADTP – High Level Construction Sequencing

						1st Ha	alf	2	2021			1st Half			2022			1st Half			2023		
						Qtr 1, 2021			Qtr 3, 2021		Qtr 1, 20		22		Qtr 3, 2022			Qtr 1, 2023			Qtr 3, 2023		Q:
	Task Name	→ Dura →	Start	Finish •	Predec∈ +	Jan	Mar	May	Jul S	ep   N	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov
1	NTP	0 wks	Mon 2/15/21	Mon 2/15/21	1		2/15																
2	Initial Submittals	6 wks	Mon 2/15/21	Fri 3/26/21	1SS	4	Init	ial Submit	ttals														
3	Mobilization	6 wks	Mon 3/15/21	Fri 4/23/21	2FS-2 wks		<b>/</b>	Mobilizat	tion														
4	▷ Site Preparation (Year 1)	13 wks	Mon 4/26/21	Fri 7/23/21																			
13	▷ Site Preparation (Year 2)	10 wks	Mon 5/16/22	2 Fri 7/22/22																			
17	Construct Diversion Portal	23 wks	Mon 5/10/21	Fri 10/15/21																			
20	Diversion Outlet Structure CLSM Foundation	24 wks	Mon 7/5/21	Fri 12/17/21																			
27	Construct Diversion Tunnel	95 wks	Mon 12/20/2	21 Fri 10/13/23	В		///																
46	Diversion Outlet Structure	61 wks	Mon 9/26/22	Fri 11/24/23	3																		
56	Coyote Creek channel improvements	25 wks	Mon 4/18/22	Fri 10/7/22																			
80	▶ Restoration	61 wks	Mon 10/10/2	22 Fri 12/8/23																			
84	Demobilization	4 wks	Mon 11/27/2	3 Fri 12/22/23	52																		Det
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#### Overall Project Schedule (Tentative) – ADTP & ADSRP





## **Questions?**

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