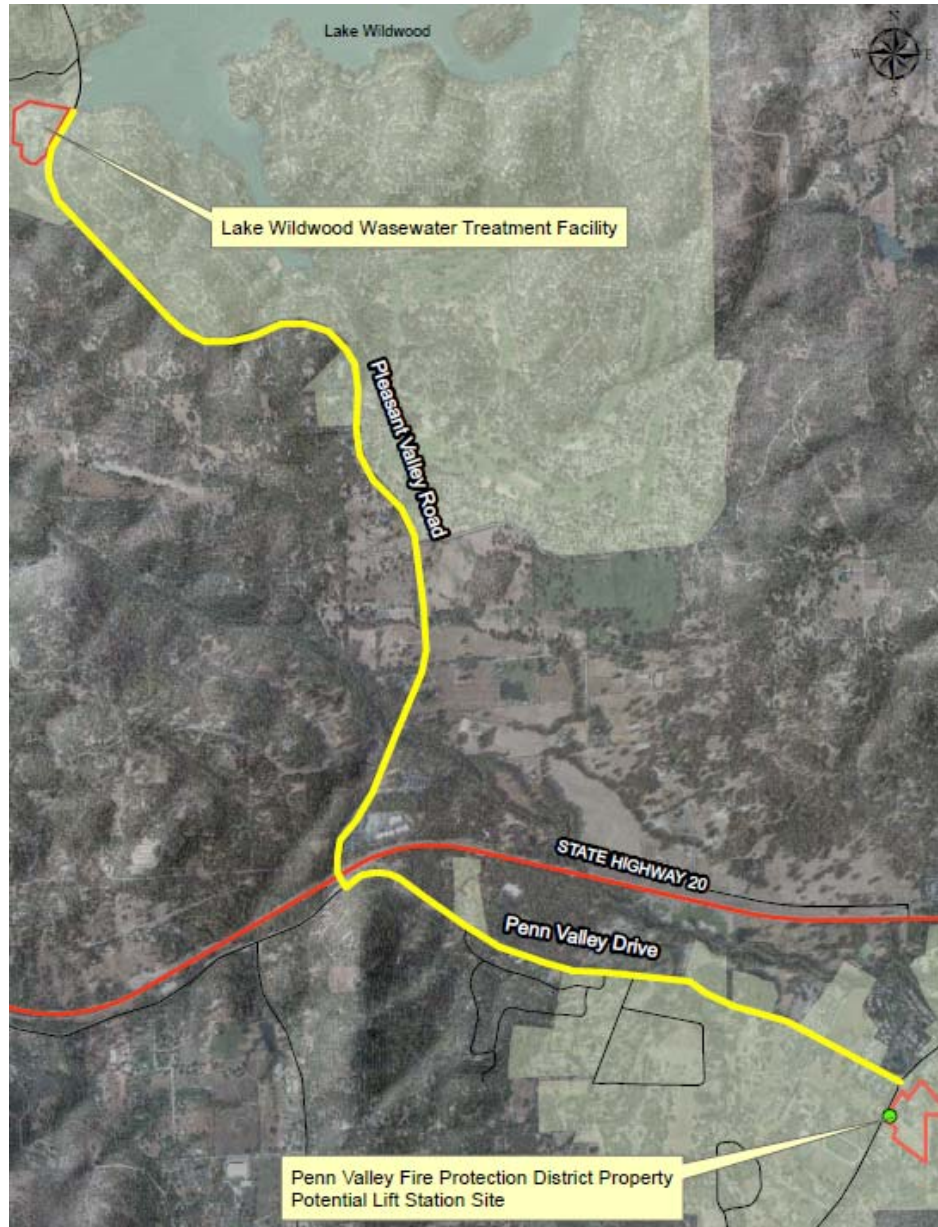

Penn Valley Pipeline Project Update and Rock Issues

September 12, 2017





Penn Valley Pipeline Project

Update – Completion expected 11/2017

- ✓ Most of pipeline has been installed
 - ✓ Remaining portion is under highway
 - ✓ Lift Station in Penn Valley has been installed
 - ✓ Remaining work involves getting power
 - ✓ Work in the plant is proceeding and will be completed in about a month
 - ✓ Pipeline in plant
 - ✓ Grit Removal System
-

Penn Valley Pipeline Project

Contract Change Orders (CCO's)

- ✓ Excepting rock issues, used about 3% of contingency
 - ✓ Have not authorized any non-essential add/alternates
 - ✓ Additional costs
 - ✓ Rock on Pleasant Valley Road by WWTP
 - ✓ Rock under Highway 20
-



2017.05.23 15:50

Penn Valley Pipeline Project

Rock on Pleasant Valley Road by WWTP

- ✓ First notified of potential rock issue 7/12/17
 - ✓ Assumed we'd get through rock as we had at all other locations
 - ✓ Alternative pipeline routes were considered
 - ✓ 4 weeks later, got through rock
 - ✓ Final costs from contractor received 1 ½ weeks ago
 - ✓ If this was only rock issue, we would of required a small amendment to contract of approx. \$24,000
-



Penn Valley Pipeline Project

Rock under Highway 20, bore and jack

- ✓ First notified of potential rock issue 2 weeks ago
 - ✓ Evaluated rock issue, performed rock analysis, discussed potential solutions with sub-contractor
 - ✓ Only solution is to use larger diameter bore and jack
 - ✓ Limited by Caltrans requirements
 - ✓ Received cost estimate for change last week
 - ✓ Additional cost is substantial, up to ~\$1.2M for the rock work (\$200K within contingency amount)
-

Penn Valley Pipeline Project

Need to address ASAP

- ✓ Contractor cost is ~\$5,000/day without any work being performed (currently being incurred)
 - ✓ If subcontractor demobilizes and has to come back due to no CCO being issued, additional cost = ~\$50,000
 - ✓ Every day construction is delayed, inspection costs also increase due to more working days
 - ✓ Design firm, additional \$76,210
 - ✓ Inspection firm, additional \$50,000
-

Conclusion & Staff Recommendation

Recommendation

- Budget Amendment

- LWW: \$433,334 to cover rock encountered by the Grit Removal System and pipeline at the WWTP
- PV: \$530,324 to cover rock encountered as part of the pipeline
- VOC: \$21,871 cover connections to this system that were made for efficiency purposes prior to rock being discovered. We anticipated making this change regardless of the rock issue.

- Contractor Contract Amendment, Koch & Koch = \$870,571
 - Designer Contract Amendment, HydroScience = \$76,210
 - CM Contract Amendment, Coastland = \$50,000
- } \$996,781

Q&A

- **Were concerned about the Zone fund balances.**
 - There are sufficient fund balances available. Revenue exceeds expenditures for all zones so funds should be able to be replenished over time. \$500,000 cash flow loan from LWW to PV is included in our evaluation.

 - **Fee increases?**
 - Were not anticipating increases at this time.

 - **Why are LWW funds being used?**
 - LWW WWTP upgrades were included in the bid documents. \$686,375 of LWW funds were encumbered when the construction contract was approved on 8/16/16. Rock was also encountered as part of those upgrades and requires an additional \$433,334.
-

LWW COST SUMMARY	
DESIGN	\$104,394
INSPECTION	\$ 21,668
ODOR	\$163,000
PIPELINE	\$392,698
GRIT	\$411,219
TOTAL	\$1,092,979
APPROVED 8/16/16	\$686,375
REQUESTED 9/12/17	\$406,604

ODOR CONTROL \$163,000

PIPELINE AND MANHOLE MODIFICATIONS ASSOCIATED W/GRIT REMOVAL SYSTEM \$159,375
CCO'S FOR ROCK \$233,323

GRIT REMOVAL SYSTEM \$364,000
CCO'S FOR ROCK \$47,219



NEVADA COUNTY SANITATION DISTRICT NO. 1
PENNA VALLEY DUAL SEWER FORCE MAIN
CIVIL
LWW WWTP SITE PLAN
SHEET 56 OF 130



DATE: JANUARY 2016
DRAWN BY: BJL/JAC
CHECKED BY: JCS
SCALE: 1" = 40'

NEVADA COUNTY SANITATION DISTRICT NO. 1
PENNA VALLEY DUAL SEWER FORCE MAIN
CIVIL
LWW WWTP SITE PLAN
SHEET 56 OF 130



C601
PROJECT NUMBER

BYPASS DATA AND PROPOSED PLAN

PLANT FLOW DATA
APPROXIMATE WINTER FLOW = 0.85 MGPD
PEAK HOURLY FLOW = 2.40 MGPD

PROPOSED BYPASS PLAN

1. INSTALL BYPASS #1 FROM MH PL1 TO MH L3.
2. PLUG 15" LINE AT MH PL1 AND L3.
3. PIPE BURST 15" LINE FROM MH PL1 TO L3 AND INSTALL NEW 24" LINE.
4. INSTALL MH L1 ENERGY DISSIPATING MANHOLE AND CONNECTING PIPELINES.
5. INSTALL MH L4, MH L5, AND CONNECTION TO MH L5.
6. INSTALL BYPASS #2 FROM MH L2 TO MH L4. PLUG NEW 20" LINE AT MH L2 AND REMOVE PLUG AT MH PL1 TO ESTABLISH FLOW IN NEW LINE UTILIZING BYPASS #2. FLOW FROM 6" FM, 4"/8" FM AND SMALL FM WILL NEED TO BE COLLECTED AT UPSTREAM MANHOLES OR OPERATOR TEMPORARILY SUSPENDED.
7. CONNECT NEW 20" LINE TO MH L3.
8. REPAIR MH L3.
9. INSTALL BYPASS #3 FROM MH L5 OR L6 TO HEADWORKS DOWNSTREAM OF PARSHALL FLUME. CLOSE GATES UPSTREAM OF PARSHALL FLUME.
10. CONNECT NEW PIPE TO HEADWORKS.
11. REMOVE BYPASS #3.

NOTE

ALTERNATIVE BYPASS PLANS WILL BE CONSIDERED. INCLUDING A SINGLE BYPASS. CONTRACTORS PROPOSED BYPASS PLAN TO BE SUBMITTED BY CONTRACTOR, REVIEWED AND APPROVED BY THE DISTRICT. PROPOSED PLAN IS PREFERRED TO OVERLAND PIPE AND BYPASS PUMP RENTAL.

