

**Economic Benefit Analysis
CDCR - Mule Creek**

Compliance Action	One-Time Non-Depreciable Expenditure				Annual Costs			Non-Compliance Date	Compliance Date	Penalty Payment Date	Discount Rate	Benefit of Non-Compliance
	Amount	Basis	Data	Delayed	Amount	Basis	Data					
Interim Containment 17/18	\$141,750	GDP	9/15/2020	No	Blank Cell	Blank Cell	Blank Cell	11/1/2017	Blank Cell	9/15/2020	3.90%	149,771
Interim Containment 18/19	\$570,150	GDP	9/15/2020	No	Blank Cell	Blank Cell	Blank Cell	11/1/2018	Blank Cell	9/15/2020	4.00%	593,605
Interim Pumping 17/18	\$21,572	GDP	1/1/2015	No	Blank Cell	Blank Cell	Blank Cell	11/1/2017	Blank Cell	9/15/2020	3.90%	25,160
Interim Pumping 18/19	\$86,765	GDP	1/1/2015	No	Blank Cell	Blank Cell	Blank Cell	11/1/2018	Blank Cell	9/15/2020	4.00%	99,719
Routine Sewer Cleaning	\$0.00	NONE	No Date	Blank	\$201,452	ECI	1/1/2015	11/1/2017	3/14/2020	9/15/2020	3.90%	558,176
Sewer Slip-lining	\$661,174	ECI	1/1/2015	Yes	Blank Cell	Blank Cell	Blank Cell	11/1/2017	9/15/2020	9/15/2020	3.90%	33,397

Income Tax Schedule: Municipality

Total Benefit: \$1,459,828

USEPA BEN Model Version: Version 2019.0.0 (March 2019)
Analyst: Bryan Elder
Date/Time of Analysis: 12/31/20 10:21

Assumptions:

1. Interim containment costs based on 90 rental tanks at \$35 per tank per day. Tank needs and cost were determined by Regional Board staff: 2017/18 - 45 days; 2018/19 - 181 days.
2. Non-compliance date for containment costs assumed to be November 1st for the onset of wet season.
3. Containment costs for 2017/18 and 2018/19 are assumed to be avoided.
4. Interim pumping costs based on 3, 6" diesel pumps for duration of tank rentals specified above. Cost assumption: RSMMeans, 2015, Heavy Construction Cost Data, 01 54 33 40 5500, pg. 522.
5. Interim pumping costs indexed using Gross Domestic Product (GDP) index.
6. Routine Sewer Cleaning assumed to be on 3 year cycle (American Society of Civil Engineers, Optimization of Collection System Maintenance Frequencies and System Performance, February 1999). 3 miles per year based on CIWQS questionnaire entry for 9 miles of gravity, force main, and owned-lateral pipe). Cost assumption: RSMMeans, 2015, Heavy Construction Cost Data, 33 01 30.16 6140 - Cleaning 4"-12" diameter - pg. 337.
7. Routine Sewer Cleaning assumed to be annual starting at the onset of wet weather, November 1st, for each calendar year. First year of noncompliance assumed to be 11/1/2017.
8. Routine Sewer Cleaning costs indexed using Employment Cost Index (ECI).
9. Compliance date for routine sewer cleaning assumed to be 3/14/2020 based on CCTV/jetting work completed by CDCR and documented in the Storm Water Collection System Investigation Findings Report.
10. Slip-lining assumed to apply to system in entirety based on review of CCTV findings. Costs are assumed to be delayed. Cost assumption: RSMMeans, 2015, Heavy Construction Cost Data, 33 01 30.74 0150 - 8" diameter, HDPE lining, pg. 338.
11. Slip-lining compliance date assumed to be 9/15/2020.
12. Slip-lining costs indexed using ECI.
13. All RSMMeans costs are adjusted for location based on Sacramento, CA - 108.7 factor, pg. 607.
14. CDCR is assumed to operate the facility as a municipality.