



Hidden Valley Lake Community Services District

Finance Committee

AGENDA

Monday, March 15, 2021

12:30 PM

Due to the COVID-19 State of Emergency and pursuant waivers to certain Brown Act provisions under the Governor's Executive Orders, this Board Meeting is being conducted via Web Conference and Microsoft Teams, and there will be no physical location from which members of the public may participate. The Public can listen or watch the Live Stream video on the District's website at: <http://www.hvlcsd.org>.

To join this meeting go to the www.hvlcsd.org select the March 15, 2021 Finance Committee Meeting select **Join Microsoft Teams Meeting** Select **Join on the web instead**.

Please submit your comments to pcuadras@hvlcsd.org or mail comments to the attention of: Administrative Services Manager, Hidden Valley Lake Community Services District, 19400 Hartmann Road, Hidden Valley Lake, Ca 95467. Comments will be addressed by the Committee Chair as related to the agenda item or during Public Comment.

DATE: Monday March 15, 2021

TIME: 12:30 PM

PLACE: Virtual Via-Microsoft Teams

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. APPROVAL OF AGENDA
5. REVIEW and DISCUSS: Monthly Financial Reports & Disbursements
6. REVIEW and DISCUSS: Projects Update
 - a) Community Power Resilience Application – Appeal
 - b) DSIRC Sub-Application
 - c) Water Mains planning Sub-Application
 - d) LNU reimbursement request
 - e) FLASHES project summary
7. REVIEW AND DISCUSS: GHD SCADA and Cybersecurity proposal

8. REVIEW AND DISCUSS: Consider approval of increase to legal budget in the amount of \$39,000 for work in support of proposed FLASHES project.
9. REVIEW and DISCUSS: Budget Planning
10. PUBLIC COMMENT
11. COMMITTEE MEMBER COMMENT
12. ITEMS FOR NEXT AGENDA:
13. ADJOURN

Public records are available upon request. Board Packets are posted on our website at www.hvllcsd.org/Meetings. In compliance to the Americans with Disabilities Act, if you need special accommodations to participate in or attend the meeting please contact the District Office at (707)987-9201 at least 48 hours prior to the scheduled meeting. Public shall be given the opportunity to comment on each agenda item before the Governing Board acts on that item, G.C. 54953.3. All other comments will be taken under Public Comment.

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

120-SEWER ENTERPRISE FUND
 FINANCIAL SUMMARY

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
<u>REVENUE SUMMARY</u>					
ALL REVENUE	<u>1,490,929.00</u>	<u>131,304.24</u>	<u>1,334,619.69</u>	<u>156,309.31</u>	<u>89.52</u>
TOTAL REVENUES	<u>1,490,929.00</u>	<u>131,304.24</u>	<u>1,334,619.69</u>	<u>156,309.31</u>	<u>89.52</u>
<u>EXPENDITURE SUMMARY</u>					
NON-DEPARTMENTAL	777,716.00	10,159.53	744,295.23	33,420.77	95.70
ADMINISTRATION	402,258.00	33,159.92	238,579.70	163,678.30	59.31
FIELD	417,256.00	30,233.12	217,891.89	199,364.11	52.22
DIRECTORS	44,530.00	2,100.10	17,999.82	26,530.18	40.42
SPECIAL PROJECTS	0.00	3,381.30	168,132.37 (	168,132.37)	0.00
CAPITAL PROJECTS & EQUIP	<u>0.00</u>	<u>2,413.00</u>	<u>15,535.10</u> (	<u>15,535.10)</u>	<u>0.00</u>
TOTAL EXPENDITURES	<u>1,641,760.00</u>	<u>81,446.97</u>	<u>1,402,434.11</u>	<u>239,325.89</u>	<u>85.42</u>
REVENUES OVER/ (UNDER) EXPENDITURES	(150,831.00)	49,857.27 (	67,814.42) (	83,016.58)	44.96

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

120-SEWER ENTERPRISE FUND
 REVENUES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-4020 INSPECTION FEES	500.00	0.00	400.00	100.00	80.00
120-4036 DEVELOPER FEES SEWER	0.00	0.00	1,977.00 (	1,977.00)	0.00
120-4040 LIEN RECORDING FEES	0.00	0.00	0.00	0.00	0.00
120-4045 AVAILABILITY FEES	5,500.00	3,633.00	4,095.60	1,404.40	74.47
120-4050 SALES OF RECLAIMED WATER	110,000.00	0.00	79,581.64	30,418.36	72.35
120-4111 COMM SEWER USE	43,113.00	3,930.43	29,011.12	14,101.88	67.29
120-4112 GOV'T SEWER USE	900.00	0.00	389.64	510.36	43.29
120-4116 SEWER USE CHARGES	1,217,940.00	121,313.88	861,301.37	356,638.63	70.72
120-4210 LATE FEE	20,000.00	2,290.38	13,963.40	6,036.60	69.82
120-4300 MISC INCOME	2,500.00	0.00	527.30	1,972.70	21.09
120-4310 OTHER INCOME	0.00	0.00	2,902.00 (	2,902.00)	0.00
120-4320 FEMA/CalOES Grants	88,776.00	112.50	200,968.50 (	112,192.50)	226.38
120-4505 LEASE INCOME	0.00	0.00	0.00	0.00	0.00
120-4550 INTEREST INCOME	1,700.00	24.05	587.88	1,112.12	34.58
120-4580 TRANSFERS IN	0.00	0.00	138,914.24 (	138,914.24)	0.00
120-4591 INCOME APPLICABLE TO PRIOR YRS	0.00	0.00	0.00	0.00	0.00
120-4955 Gain/Loss	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES	1,490,929.00	131,304.24	1,334,619.69	156,309.31	89.52
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120-SEWER ENTERPRISE FUND
NON-DEPARTMENTAL
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-00-5010 SALARY & WAGES	0.00	0.00	0.00	0.00	0.00
120-5-00-5020 EMPLOYEE BENEFITS	0.00	0.00	0.00	0.00	0.00
120-5-00-5021 RETIREMENT BENEFITS	0.00	0.00	0.00	0.00	0.00
120-5-00-5024 WORKERS' COMP INSURANCE	15,000.00	0.00	12,990.53	2,009.47	86.60
120-5-00-5025 RETIREE HEALTH BENEFITS	14,000.00	649.93	4,826.49	9,173.51	34.47
120-5-00-5026 COBRA Health & Dental	0.00	0.00	0.00	0.00	0.00
120-5-00-5040 ELECTION EXPENSE	12,000.00	16.98	16.98	11,983.02	0.14
120-5-00-5050 DEPRECIATION	0.00	0.00	0.00	0.00	0.00
120-5-00-5060 GASOLINE, OIL & FUEL	20,000.00	1,013.02	8,542.49	11,457.51	42.71
120-5-00-5061 VEHICLE MAINT	18,000.00	1,464.95	15,823.44	2,176.56	87.91
120-5-00-5062 TAXES & LIC	800.00	0.00	213.88	586.12	26.74
120-5-00-5074 INSURANCE	54,066.00	0.00	59,153.86 (	5,087.86)	109.41
120-5-00-5075 BANK FEES	21,000.00	1,895.74	15,102.20	5,897.80	71.92
120-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	7,500.00	3,306.00	11,163.20 (	3,663.20)	148.84
120-5-00-5092 POSTAGE & SHIPPING	7,000.00	638.11	4,807.23	2,192.77	68.67
120-5-00-5110 CONTRACTUAL SERVICES	0.00	0.00	0.00	0.00	0.00
120-5-00-5121 LEGAL SERVICES	20,000.00	303.75	10,424.25	9,575.75	52.12
120-5-00-5122 ENGINEERING SERVICES	50,000.00	2,242.50	30,748.53	19,251.47	61.50
120-5-00-5123 OTHER PROFESSIONAL SERVICE	50,000.00	187.50	30,631.35	19,368.65	61.26
120-5-00-5126 AUDIT SERVICES	7,500.00	0.00	5,950.00	1,550.00	79.33
120-5-00-5130 PRINTING & PUBLICATION	5,000.00	258.67	2,564.58	2,435.42	51.29
120-5-00-5135 NEWSLETTER	500.00	0.00	0.00	500.00	0.00
120-5-00-5140 RENTS & LEASES	0.00	0.00	0.00	0.00	0.00
120-5-00-5145 EQUIPMENT RENTAL	5,000.00	358.18	3,555.05	1,444.95	71.10
120-5-00-5148 OPERATING SUPPLIES	48,000.00	17,878.75	37,087.43	10,912.57	77.27
120-5-00-5150 REPAIR & REPLACE	145,000.00 (	29,084.13)	131,072.16	13,927.84	90.39
120-5-00-5155 MAINT BLDG & GROUNDS	8,000.00	209.57	4,585.61	3,414.39	57.32
120-5-00-5156 CUSTODIAL SERVICES	16,500.00	1,262.50	8,058.50	8,441.50	48.84
120-5-00-5157 SECURITY	500.00	492.00	1,082.52 (	582.52)	216.50
120-5-00-5160 SLUDGE DISPOSAL	45,000.00	0.00	28,256.13	16,743.87	62.79
120-5-00-5165 TERTIARY POND MAINTENANCE	50,000.00	0.00	50,000.00	0.00	100.00
120-5-00-5180 UNCOLLECTABLE ACCOUNTS	0.00	0.00	0.00	0.00	0.00
120-5-00-5191 TELEPHONE	11,000.00	1,042.20	7,435.59	3,564.41	67.60
120-5-00-5192 ELECTRICITY	65,000.00	2,328.61	74,097.26 (	9,097.26)	114.00
120-5-00-5193 OTHER UTILITIES	2,600.00	254.83	1,767.16	832.84	67.97
120-5-00-5194 IT SERVICES	36,500.00	983.69	31,620.06	4,879.94	86.63
120-5-00-5195 ENV/MONITORING	35,000.00	2,339.00	22,650.75	12,349.25	64.72
120-5-00-5196 RISK MANAGEMENT	0.00	0.00	0.00	0.00	0.00
120-5-00-5198 ANNUAL OPERATING FEES	2,000.00	29.76	4,742.76 (	2,742.76)	237.14
120-5-00-5310 EQUIPMENT - FIELD	1,000.00	0.00	1,136.70 (	136.70)	113.67
120-5-00-5311 EQUIPMENT - OFFICE	1,000.00	0.00	2,661.95 (	1,661.95)	266.20
120-5-00-5312 TOOLS - FIELD	1,500.00	0.00	10.70	1,489.30	0.71
120-5-00-5315 SAFETY EQUIPMENT	1,500.00	87.42	24,167.51 (	22,667.51)	1,611.17
120-5-00-5510 SEWER OUTREACH	0.00	0.00	0.00	0.00	0.00
120-5-00-5545 RECORDING FEES	250.00	0.00	148.50	101.50	59.40
120-5-00-5580 TRANSFERS OUT	0.00	0.00	97,199.88 (	97,199.88)	0.00
120-5-00-5590 NON-OPERATING OTHER	0.00	0.00	0.00	0.00	0.00
120-5-00-5591 EXPENSES APPLICABLE TO PRI	0.00	0.00	0.00	0.00	0.00
120-5-00-5600 CONTINGENCY	0.00	0.00	0.00	0.00	0.00

HIDDEN VALLEY LAKE CSD
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: FEBRUARY 28TH, 2021

120-SEWER ENTERPRISE FUND
NON-DEPARTMENTAL
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-00-5700 OVER / SHORT	0.00	0.00	0.00	0.00	0.00
TOTAL NON-DEPARTMENTAL	777,716.00	10,159.53	744,295.23	33,420.77	95.70

120-SEWER ENTERPRISE FUND
ADMINISTRATION
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-10-5010 SALARIES & WAGES	252,875.00	21,654.32	162,352.58	90,522.42	64.20
120-5-10-5020 EMPLOYEE BENEFITS	91,844.00	6,471.60	41,646.14	50,197.86	45.34
120-5-10-5021 RETIREMENT BENEFITS	47,189.00	4,050.59	30,898.85	16,290.15	65.48
120-5-10-5063 CERTIFICATIONS	500.00	0.00	0.00	500.00	0.00
120-5-10-5090 OFFICE SUPPLIES	4,000.00	496.95	2,127.15	1,872.85	53.18
120-5-10-5170 TRAVEL MILEAGE	1,500.00	45.21	784.23	715.77	52.28
120-5-10-5175 EDUCATION / SEMINARS	4,000.00	441.25	670.75	3,329.25	16.77
120-5-10-5179 ADM MISC EXPENSES	350.00	0.00	100.00	250.00	28.57
TOTAL ADMINISTRATION	402,258.00	33,159.92	238,579.70	163,678.30	59.31

120-SEWER ENTERPRISE FUND
FIELD
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-30-5010 SALARIES & WAGES	255,455.00	17,048.88	129,320.23	126,134.77	50.62
120-5-30-5020 EMPLOYEE BENEFITS	106,340.00	9,151.17	60,873.91	45,466.09	57.24
120-5-30-5021 RETIREMENT BENEFITS	46,661.00	3,520.25	26,000.38	20,660.62	55.72
120-5-30-5022 CLOTHING ALLOWANCE	1,800.00	0.00	706.72	1,093.28	39.26
120-5-30-5063 CERTIFICATIONS	1,500.00	125.00	250.00	1,250.00	16.67
120-5-30-5090 OFFICE SUPPLIES	1,000.00	105.43	314.73	685.27	31.47
120-5-30-5170 TRAVEL MILEAGE	500.00	38.64	38.64	461.36	7.73
120-5-30-5175 EDUCATION / SEMINARS	4,000.00	243.75	387.28	3,612.72	9.68
TOTAL FIELD	417,256.00	30,233.12	217,891.89	199,364.11	52.22

HIDDEN VALLEY LAKE CSD
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: FEBRUARY 28TH, 2021120-SEWER ENTERPRISE FUND
DIRECTORS
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-40-5010 DIRECTORS COMPENSATION	3,000.00	269.15	2,153.20	846.80	71.77
120-5-40-5020 DIRECTOR BENEFITS	230.00	8.00	85.00	145.00	36.96
120-5-40-5030 DIRECTOR HEALTH BENEFITS	36,000.00	1,822.95	15,761.62	20,238.38	43.78
120-5-40-5170 TRAVEL MILEAGE	200.00	0.00	0.00	200.00	0.00
120-5-40-5175 EDUCATION / SEMINARS	1,500.00	0.00	0.00	1,500.00	0.00
120-5-40-5176 DIRECTOR TRAINING	3,600.00	0.00	0.00	3,600.00	0.00
TOTAL DIRECTORS	44,530.00	2,100.10	17,999.82	26,530.18	40.42

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

120-SEWER ENTERPRISE FUND
 SPECIAL PROJECTS
 EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-60-6001 PW LKHVA01	0.00	0.00	0.00	0.00	0.00
120-5-60-6002 PW LKHVB02	0.00	0.00	0.00	0.00	0.00
120-5-60-6003 PW LKHVA81	0.00	0.00	0.00	0.00	0.00
120-5-60-6004 PW LKHVB82	0.00	0.00	0.00	0.00	0.00
120-5-60-6005 PW LKHVF84	0.00	0.00	0.00	0.00	0.00
120-5-60-6006 PW LKHVF83	0.00	0.00	0.00	0.00	0.00
120-5-60-6007 RAINS 2019	0.00	0.00	0.00	0.00	0.00
120-5-60-6009 ACCESS RD	0.00	3,373.00	137,395.28 (	137,395.28)	0.00
120-5-60-6010 LNU COMPLEX - A	0.00	8.30	8.30 (	8.30)	0.00
120-5-60-6011 LNU COMPLEX - B	0.00	0.00	30,728.79 (	30,728.79)	0.00
TOTAL SPECIAL PROJECTS	0.00	3,381.30	168,132.37 (	168,132.37)	0.00

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

120-SEWER ENTERPRISE FUND
 CAPITAL PROJECTS & EQUIP
 EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
120-5-70-7101 VAC TRUCK	0.00	0.00	0.00	0.00	0.00
120-5-70-7201 I & I	0.00	2,413.00	15,535.10 (	15,535.10)	0.00
120-5-70-7203 HEADWORKS RAKE	0.00	0.00	0.00	0.00	0.00
TOTAL CAPITAL PROJECTS & EQUIP	0.00	2,413.00	15,535.10 (15,535.10)	0.00
TOTAL EXPENDITURES	1,641,760.00	81,446.97	1,402,434.11	239,325.89	85.42
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REVENUES OVER/(UNDER) EXPENDITURES	(150,831.00)	49,857.27	(67,814.42)	(83,016.58)	44.96
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*** END OF REPORT ***

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

130-WATER ENTERPRISE FUND
 FINANCIAL SUMMARY

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
<u>REVENUE SUMMARY</u>					
ALL REVENUE	<u>2,175,569.00</u>	<u>180,674.99</u>	<u>1,497,675.12</u>	<u>677,893.88</u>	<u>68.84</u>
TOTAL REVENUES	<u>2,175,569.00</u>	<u>180,674.99</u>	<u>1,497,675.12</u>	<u>677,893.88</u>	<u>68.84</u>
<u>EXPENDITURE SUMMARY</u>					
NON-DEPARTMENTAL	1,303,635.00	55,061.71	896,234.27	407,400.73	68.75
ADMINISTRATION	432,258.00	33,159.76	238,723.04	193,534.96	55.23
FIELD	387,856.00	28,839.74	233,781.20	154,074.80	60.28
DIRECTORS	51,820.00	2,100.04	17,999.45	33,820.55	34.73
SPECIAL PROJECTS	0.00	8.30	41,533.07 (	41,533.07)	0.00
CAPITAL PROJECTS & EQUIP	<u>0.00</u>	<u>0.00</u>	<u>43,986.23</u> (	<u>43,986.23)</u>	<u>0.00</u>
TOTAL EXPENDITURES	<u>2,175,569.00</u>	<u>119,169.55</u>	<u>1,472,257.26</u>	<u>703,311.74</u>	<u>67.67</u>
REVENUES OVER/ (UNDER) EXPENDITURES	0.00	61,505.44	25,417.86 (	25,417.86)	0.00

130-WATER ENTERPRISE FUND
 REVENUES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-4035 RECONNECT FEE	12,000.00	0.00	70.00	11,930.00	0.58
130-4036 DEVELOPER FEES WATER	0.00	0.00	1,977.00 (	1,977.00)	0.00
130-4038 COMM WATER METER INSTALL	0.00	0.00	0.00	0.00	0.00
130-4039 WATER CONNECTION FEE	0.00	0.00	2,303.00 (	2,303.00)	0.00
130-4040 LIEN RECORDING FEES	1,200.00	0.00	776.92	423.08	64.74
130-4045 AVAILABILITY FEES	22,000.00	14,532.00	16,442.40	5,557.60	74.74
130-4110 COMM WATER USE	95,295.00	3,714.36	37,926.62	57,368.38	39.80
130-4112 GOV'T WATER USE	6,000.00	426.41	3,235.73	2,764.27	53.93
130-4115 WATER USE	1,968,074.00	158,482.83	1,398,095.00	569,979.00	71.04
130-4117 WATER OVERAGE FEE	0.00	0.00	0.00	0.00	0.00
130-4118 WATER OVERAGE COMM	0.00	0.00	0.00	0.00	0.00
130-4119 WATER OVERAGE GOV	0.00	0.00	0.00	0.00	0.00
130-4210 LATE FEE	32,000.00	3,197.66	23,313.66	8,686.34	72.86
130-4215 RETURNED CHECK FEE	1,000.00	0.00	150.00	850.00	15.00
130-4300 MISC INCOME	3,000.00	0.00	1,437.40	1,562.60	47.91
130-4310 OTHER INCOME	1,500.00	0.00	2,902.00 (	1,402.00)	193.47
130-4320 FEMA/CalOES Grants	30,000.00	112.50	1,462.50	28,537.50	4.88
130-4330 HYDRANT METER USE DEPOSIT	0.00	0.00	0.00	0.00	0.00
130-4505 LEASE INCOME	0.00	0.00	0.00	0.00	0.00
130-4550 INTEREST INCOME	3,500.00	209.23	1,060.39	2,439.61	30.30
130-4580 TRANSFER IN	0.00	0.00	6,522.50 (	6,522.50)	0.00
130-4591 INCOME APPLICABLE TO PRIOR YRS	0.00	0.00	0.00	0.00	0.00
130-4955 Gain/Loss	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES	2,175,569.00	180,674.99	1,497,675.12	677,893.88	68.84
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130-WATER ENTERPRISE FUND
 NON-DEPARTMENTAL
 EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-00-5010 SALARY & WAGES	0.00	0.00	0.00	0.00	0.00
130-5-00-5020 EMPLOYEE BENEFITS	0.00	0.00	0.00	0.00	0.00
130-5-00-5021 RETIREMENT BENEFITS	0.00	0.00	0.00	0.00	0.00
130-5-00-5024 WORKERS' COMP INSURANCE	15,000.00	0.00	12,990.51	2,009.49	86.60
130-5-00-5025 RETIREE HEALTH BENEFITS	14,000.00	649.93	4,826.53	9,173.47	34.48
130-5-00-5026 COBRA Health & Dental	0.00	0.00	0.00	0.00	0.00
130-5-00-5040 ELECTION EXPENSE	12,000.00	16.97	16.97	11,983.03	0.14
130-5-00-5050 DEPRECIATION	0.00	0.00	0.00	0.00	0.00
130-5-00-5060 GASOLINE, OIL & FUEL	20,000.00	1,013.01	8,650.82	11,349.18	43.25
130-5-00-5061 VEHICLE MAINT	12,500.00	1,464.93	7,624.56	4,875.44	61.00
130-5-00-5062 TAXES & LIC	1,200.00	0.00	213.88	986.12	17.82
130-5-00-5074 INSURANCE	54,055.00	0.00	59,153.84 (	5,098.84)	109.43
130-5-00-5075 BANK FEES	21,000.00	1,895.73	15,142.03	5,857.97	72.10
130-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	24,600.00	3,306.00	28,023.19 (	3,423.19)	113.92
130-5-00-5092 POSTAGE & SHIPPING	6,500.00	638.09	4,807.12	1,692.88	73.96
130-5-00-5110 CONTRACTUAL SERVICES	0.00	0.00	0.00	0.00	0.00
130-5-00-5121 LEGAL SERVICES	20,000.00	303.75	11,604.75	8,395.25	58.02
130-5-00-5122 ENGINEERING SERVICES	60,000.00	1,135.00	6,389.37	53,610.63	10.65
130-5-00-5123 OTHER PROFESSIONAL SERVICE	50,000.00	187.50	25,994.95	24,005.05	51.99
130-5-00-5124 WATER RIGHTS	50,000.00	131.25	1,886.60	48,113.40	3.77
130-5-00-5126 AUDIT SERVICES	7,500.00	0.00	5,950.00	1,550.00	79.33
130-5-00-5130 PRINTING & PUBLICATION	7,500.00	258.67	2,600.40	4,899.60	34.67
130-5-00-5135 NEWSLETTER	500.00	0.00	0.00	500.00	0.00
130-5-00-5140 RENT & LEASES	0.00	0.00	0.00	0.00	0.00
130-5-00-5145 EQUIPMENT RENTAL	45,000.00	323.42	4,850.85	40,149.15	10.78
130-5-00-5148 OPERATING SUPPLIES	5,000.00	2,094.73	3,441.80	1,558.20	68.84
130-5-00-5150 REPAIR & REPLACE	125,000.00	29,024.23	109,284.99	15,715.01	87.43
130-5-00-5155 MAINT BLDG & GROUNDS	12,000.00	209.57	8,494.16	3,505.84	70.78
130-5-00-5156 CUSTODIAL SERVICES	4,200.00	312.50	2,235.25	1,964.75	53.22
130-5-00-5157 SECURITY	5,000.00	132.00	722.51	4,277.49	14.45
130-5-00-5180 UNCOLLECTABLE ACCOUNTS	0.00	0.00	0.00	0.00	0.00
130-5-00-5191 TELEPHONE	11,000.00	1,042.19	7,235.47	3,764.53	65.78
130-5-00-5192 ELECTRICITY	150,000.00	8,530.59	152,085.57 (	2,085.57)	101.39
130-5-00-5193 OTHER UTILITIES	2,500.00	254.82	1,779.06	720.94	71.16
130-5-00-5194 IT SERVICES	36,500.00	1,289.68	33,150.03	3,349.97	90.82
130-5-00-5195 ENV/MONITORING	17,000.00	630.00	7,052.00	9,948.00	41.48
130-5-00-5196 RISK MANAGEMENT	0.00	0.00	0.00	0.00	0.00
130-5-00-5198 ANNUAL OPERATING FEES	32,000.00	29.74	28,757.69	3,242.31	89.87
130-5-00-5310 EQUIPMENT - FIELD	1,000.00	0.00	1,136.70 (	136.70)	113.67
130-5-00-5311 EQUIPMENT - OFFICE	1,000.00	0.00	2,661.92 (	1,661.92)	266.19
130-5-00-5312 TOOLS - FIELD	1,500.00	0.00	10.70	1,489.30	0.71
130-5-00-5315 SAFETY EQUIPMENT	1,500.00	87.41	6,974.16 (	5,474.16)	464.94
130-5-00-5505 WATER CONSERVATION	9,000.00	100.00	2,700.00	6,300.00	30.00
130-5-00-5520 HYDRANT DEPOSIT REFUND	0.00	0.00	0.00	0.00	0.00
130-5-00-5545 RECORDING FEES	250.00	0.00	148.50	101.50	59.40
130-5-00-5580 TRANSFERS OUT	467,830.00	0.00	327,637.39	140,192.61	70.03
130-5-00-5590 NON-OPERATING OTHER	0.00	0.00	0.00	0.00	0.00
130-5-00-5591 EXPENSES APPLICABLE TO PRI	0.00	0.00	0.00	0.00	0.00
130-5-00-5600 CONTINGENCY	0.00	0.00	0.00	0.00	0.00

HIDDEN VALLEY LAKE CSD
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: FEBRUARY 28TH, 2021

130-WATER ENTERPRISE FUND
NON-DEPARTMENTAL
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
TOTAL NON-DEPARTMENTAL	1,303,635.00	55,061.71	896,234.27	407,400.73	68.75

130-WATER ENTERPRISE FUND
ADMINISTRATION
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-10-5010 SALARIES & WAGES	282,875.00	21,654.26	162,352.93	120,522.07	57.39
130-5-10-5020 EMPLOYEE BENEFITS	91,844.00	6,471.55	41,645.95	50,198.05	45.34
130-5-10-5021 RETIREMENT BENEFITS	47,189.00	4,050.57	30,942.30	16,246.70	65.57
130-5-10-5063 CERTIFICATIONS	0.00	0.00	0.00	0.00	0.00
130-5-10-5090 OFFICE SUPPLIES	4,000.00	496.92	2,126.92	1,873.08	53.17
130-5-10-5170 TRAVEL MILEAGE	2,000.00	45.21	784.19	1,215.81	39.21
130-5-10-5175 EDUCATION / SEMINARS	4,000.00	441.25	770.75	3,229.25	19.27
130-5-10-5179 ADM MISC EXPENSES	350.00	0.00	100.00	250.00	28.57
130-5-10-5505 WATER CONSERVATION	0.00	0.00	0.00	0.00	0.00
TOTAL ADMINISTRATION	432,258.00	33,159.76	238,723.04	193,534.96	55.23

130-WATER ENTERPRISE FUND
FIELD
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-30-5010 SALARIES & WAGES	225,455.00	15,778.84	143,903.55	81,551.45	63.83
130-5-30-5020 EMPLOYEE BENEFITS	106,340.00	9,156.56	60,839.38	45,500.62	57.21
130-5-30-5021 RETIREMENT BENEFITS	46,661.00	3,346.54	27,484.50	19,176.50	58.90
130-5-30-5022 CLOTHING ALLOWANCE	1,800.00	0.00	706.70	1,093.30	39.26
130-5-30-5063 CERTIFICATIONS	600.00	170.00	250.00	350.00	41.67
130-5-30-5090 OFFICE SUPPLIES	1,000.00	105.41	314.68	685.32	31.47
130-5-30-5170 TRAVEL MILEAGE	2,000.00	38.64	38.64	1,961.36	1.93
130-5-30-5175 EDUCATION / SEMINARS	4,000.00	243.75	243.75	3,756.25	6.09
TOTAL FIELD	387,856.00	28,839.74	233,781.20	154,074.80	60.28

HIDDEN VALLEY LAKE CSD
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: FEBRUARY 28TH, 2021130-WATER ENTERPRISE FUND
DIRECTORS
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-40-5010 DIRECTORS COMPENSATION	3,000.00	269.10	2,152.80	847.20	71.76
130-5-40-5020 DIRECTOR BENEFITS	120.00	8.00	85.00	35.00	70.83
130-5-40-5030 DIRECTOR HEALTH BENEFITS	42,000.00	1,822.94	15,761.65	26,238.35	37.53
130-5-40-5080 MEMBERSHIP & SUBSCRIPTION	0.00	0.00	0.00	0.00	0.00
130-5-40-5170 TRAVEL MILEAGE	200.00	0.00	0.00	200.00	0.00
130-5-40-5175 EDUCATION / SEMINARS	1,500.00	0.00	0.00	1,500.00	0.00
130-5-40-5176 DIRECTOR TRAINING	5,000.00	0.00	0.00	5,000.00	0.00
TOTAL DIRECTORS	51,820.00	2,100.04	17,999.45	33,820.55	34.73

HIDDEN VALLEY LAKE CSD
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: FEBRUARY 28TH, 2021

130-WATER ENTERPRISE FUND
 SPECIAL PROJECTS
 EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-60-6010 LNU COMPLEX - A	0.00	8.30	8.30 (	8.30)	0.00
130-5-60-6011 LNU COMPLEX - B	0.00	0.00	41,524.77 (	41,524.77)	0.00
TOTAL SPECIAL PROJECTS	0.00	8.30	41,533.07 (	41,533.07)	0.00

HIDDEN VALLEY LAKE CSD
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: FEBRUARY 28TH, 2021

130-WATER ENTERPRISE FUND
CAPITAL PROJECTS & EQUIP
EXPENDITURES

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	BUDGET BALANCE	% OF BUDGET
130-5-70-7101 VAC TRUCK	0.00	0.00	0.00	0.00	0.00
130-5-70-7202 GENERATORS	0.00	0.00	0.00	0.00	0.00
130-5-70-7204 TANK 9	0.00	0.00	8,292.50 (	8,292.50)	0.00
130-5-70-7205 MMN WTR MAIN	0.00	0.00	35,693.73 (	35,693.73)	0.00
TOTAL CAPITAL PROJECTS & EQUIP	0.00	0.00	43,986.23 (	43,986.23)	0.00
TOTAL EXPENDITURES	2,175,569.00	119,169.55	1,472,257.26	703,311.74	67.67
REVENUES OVER/(UNDER) EXPENDITURES	0.00	61,505.44	25,417.86 (	25,417.86)	0.00

*** END OF REPORT ***



Hidden Valley Lake Community Services District
Financial Activity, Cash and Investment Summary
As of February 28, 2021
(Rounded and Unaudited)

	Operating Checking	Money Market	LAIF	Bond Trustee	Total All Cash/Investment Accounts
	West America Bank 1010	West America Bank 1130	State Treasurer 1133	US Bank 1200	
Financial Activity of Cash/Investment Accounts in General Ledger [1]					
Beginning Balances	\$ 218,496	\$ 1,199,859	\$ 626,660	\$ 175,004	\$ 2,220,019
Cash Receipts					
Utility Billing Deposits	\$ 289,511	\$ 144,301	\$ -	\$ -	
Electronic Fund Deposits	\$ -	\$ -	\$ -	\$ -	
Other Deposits	\$ -	\$ 71	\$ -	\$ 1	
Total Cash Receipts	\$ 289,511	\$ 144,372	\$ -	\$ 175,005	
Cash Disbursements					
Accounts Payable Checks issued	\$ 101,297	\$ -	\$ -	\$ -	
Electronic Fund/Bank Draft Disbursements	\$ 39,134	\$ -	\$ -	\$ -	
Payroll Checks issued - net	\$ 60,259	\$ -	\$ -	\$ -	
Bank Fees	\$ 3,791	\$ -	\$ -	\$ -	
Other Disbursements		\$ -	\$ -	\$ -	
Total Disbursements	\$ 204,481	\$ -	\$ -	\$ -	
Transfers Between Accounts					
Transfers In	\$ 7,500		\$ -	\$ -	
Transfers Out	\$ -	\$ 7,500		\$ -	
Total Transfers Between Accounts	\$ 7,500	\$ 7,500	\$ -	\$ -	
Ending Balances in General Ledger	\$ 311,026	\$ 1,336,731	\$ 626,660	\$ 175,005	\$ 2,449,422
Reconciling Adjustments to Financial Institutions [2]	\$ -	\$ -	\$ -	\$ -	
Financial Institution Ending Balances	\$ 342,613	\$ 1,336,731	\$ 626,660	\$ 175,005	\$ 2,481,009

Ending Balances General Ledger Distribution by District Funds

100 Operating	-	-	-	-	-
120 Wastewater Operating	126,288	69,520	72,385	-	268,194
130 Water Operating	187,283	24,740	107,875	-	319,898
140 Flood Enterprise	(666)	-	-	-	(666)
215 2016 Sewer Refinancing Bond	(1,880)	213,033	94,668	175,005	480,826
218 2002 CIEDB Loan	-	42,683	12,385	-	55,067
219 2012 USDA Solar COP	-	8,366	881	-	9,248
313 Wastewater Operating Reserve	-	71,733	58,964	-	130,697
314 Wastewater CIP	-	308,671	95,339	-	404,010
319 2012 USDA Solar COP Reserve	-	31,319	-	-	31,319
320 Water CIP	-	226,659	-	-	226,659
325 Water Operating Reserve	-	234,875	-	-	234,875
350 2002 CIEDB Loan Reserve	-	-	184,163	-	184,163
712 Bond Revolving	-	105,132	-	-	105,132
Total Ending Balances in General Ledger	311,026	1,336,731	626,660	175,005	2,449,422

[1] From General Ledger activity by Financial Institution accounts with District Fund accounts consolidated. Checking and Money Market accounts are with West America Bank, Local Agency Investment Account (LAIF) is held by the State Treasurer on behalf of the District and US Bank is the Bond Trustee for the the 2016 Refunding >>>>>>>. All cash accounts have been reconciled to the ending Financial Institution statements.

[2] See Reconciliation Detail Summary for details

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
2020 - 2021 CAPITAL IMPROVEMENT PLAN
February 2021

FUND	DESCRIPTION	Revenue	Budget Expensed	Expense to Date	Fund Balance
314 WASTEWATER CAPITAL IMPROVEMENT	BEGINNING FUND BALANCE	\$ 127,212			\$ 127,212
	Transfers In To Date	\$ 415,694			\$ 542,906
	Regulatory Compliance/I&I Mitigation		\$ 100,000	\$ 15,535	\$ 527,371
	Disaster Mitigation/SCADA Upgrade		\$ 30,000	\$ -	\$ 527,371
	Diaster Recovery/WWTP Access Road Repair		\$ 50,000	\$ 137,395	\$ 389,976
	Reliable Water Supply/Leak Repair/Mini-Excavator		\$ 50,000	\$ -	\$ 389,976
	Risk Management Plan/Chlorine Tank Auto Shut-Off FY 21-22		\$ -	\$ -	\$ 389,976
	Regulatory Compliance/Dump Truck		\$ 75,000	\$ -	\$ 389,976
	Stormwater Master Planning/Mitigation		\$ 10,000	\$ -	\$ 389,976
	Transfers Out To Date			\$ 152,930	
ENDING FUND BALANCE				\$ 404,010	
FUND	DESCRIPTION	Revenue	Budget Expensed	Expense to Date	Fund Balance
320 WATER CAPITAL IMPROVEMENT	BEGINNING FUND BALANCE	\$ 148,578			\$ 148,578
	Transfers In To Date	\$ 84,604			\$ 233,182
	Wildfire Resilience/Reliable Water Supply/Replace Wooden Tanks		\$ 360,000	\$ 8,293	\$ 224,889
	Disaster Mitigation/SCADA Upgrade		\$ 30,000	\$ -	\$ 224,889
	Reliable Water Supply/Automatic Metering Infrastructure		\$ 200,000	\$ -	\$ 224,889
	Wildfire Resilience/Reliable Water Supply/PSPS Backup Power Supply		\$ 50,000	\$ -	\$ 224,889
	Reliable Water Supply/Leak Repair Mini-Excavator		\$ 50,000	\$ -	\$ 224,889
	Regulatory Compliance/Dump Truck		\$ 75,000	\$ -	\$ 224,889
	Transfers Out To Date			\$ 8,293	
	ENDING FUND BALANCE				\$ 224,889

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT

2020 - 2021 DEBT SERVICE

FEBRUARY 2021

	DEBT SERVICE REVENUE	FUND	DEBT AMOUNT
1)	1995-2 BOND - TAX ASSESSMENT	215	\$ 292,454
2)	CIEDB LOAN - WATER INFRASTRUCTURE	130	152,472
	CIEDB LOAN - WATER CAPACITY FEE	218	18,274
3)	USDA LOAN - SOLAR PROJECT WWTP	120	32,255
	TOTAL DEBT SERVICE REVENUE		<u><u>\$ 495,455</u></u>

	DEBT SERVICE EXPENSE	FUND	DEBT	AMT PAID	DATE
1)	1995-2 BOND REDEMPTION (PRINCIPAL)	215	\$ 185,000	\$ 185,000	08/14/2020
	1995-2 BOND REDEMPTION (INTEREST)	215	99,994	99,357	01/22/2021
	BOND ADMINISTRATION (ANNUAL FEE)	215	7,460	6,577	12/30/2020
			<u>\$ 292,454</u>	<u>\$ 290,934</u>	

2)	CIEDB (PRINCIPAL)	218	\$ 110,065	\$ 110,065	01/08/2021
	CIEDB (INTEREST)	218	55,865	55,865	01/08/2021
	CIEDB (ANNUAL FEE)	218	4,816	4,815.99	01/08/2021
			<u>\$ 170,746</u>	<u>\$ 170,746</u>	

3)	USDA RUS LOAN (PRINCIPAL)	219	\$ 17,000	\$ 17,000	08/03/2020
	USDA RUS LOAN (INTEREST)	219	15,255	15,255	02/01/2021
			<u>\$ 32,255</u>	<u>\$ 32,255</u>	

TOTAL DEBT	PAID TO DATE
<u><u>\$ 495,455</u></u>	<u><u>\$ 493,935</u></u>

Disaster Reimbursements (Federal & State)						
Year of event	Disaster	Project	Description	Completion	Reimbursed?	Reimbursements
2017	4301	LHHVA01	Pump&Dump	100%	100%	\$ 214,133.04
2017	4301	LKHVB01	Repair&Labor	100%	100%	\$ 16,748.90
2017	4308	LKHVA81	Pump&Dump	100%	100%	\$ 390,533.63
2017	4308	LKHVB81	Repair&Labor	100%	100%	\$ 5,317.17
2017	4308	LKHVF83	Repair&Labor	100%	100%	\$ 652,310.53
2019	4434	100063	Pump&Dump	100%	100%	\$ 916,723.31
2019	4434	100118	Repair	100%	100%	\$ 13,101.71
2019	4434	100126	Repair&Labor	100%	100%	\$ 39,032.81
2019	4434	101502	Repair&Labor	100%	100%	\$ 33,321.19
2019	4434	100138	Repair: Chip seal the WWTP Access Materials:	100%	90%	\$ 110,730.00
2020	4482 COVID-19	138890	Purchased for disinfection, and infection prevention	100%	0%	\$ 10,401.87
2020	4558 LNU Complex Fire	Cat B 100% (FEMA)	Debris Removal -FireBreak -	100%	0%	\$ 36,245.32
2020	4558 LNU Complex Fire	Cat B 75% (FEMA) 18.75% (CalOES)	Debris Removal -FireBreak - Chipping&Spreading	10%	0%	\$ 150,000.00
2020	4558 LNU Complex Fire	Cat B 100% (FEMA)	Continuity of Operations - Generators - Smoke Soot and Ash	100%	0%	\$ 20,747.18
2020	4558 LNU Complex Fire	Cat B 75% (FEMA) 18.75% (CalOES)	Continuity of Operations - Generators - Smoke Soot and Ash	100%	0%	\$ 47,647.94

Totals:	\$ 2,656,994.60
Actual:	\$ 2,391,952.29

Access Road
1/29 Submitted CloseOut documentation, Final Reimbursement Request (\$5,597.36), and Quarterly Update

Debris Removal
1/20 Submitted RFP
1/29 Reviewed 3 proposals
2/2 Awarded contract to MFE
2/5 Category change for projects, potential changes to CalOES reimbursement policy, and extension request.
2/11 Final calculations on category, and reimbursement policy shows an increase in CSD's financial burden from ~\$14k to ~\$30k
3/4 Project was re-categorized twice more, and submitted.
3/5 MFE has begun staging equipment at the end of Eagle Rock Rd.

Generators/HVAC
2/5 Category change for projects, potential changes to CalOES reimbursement policy, and extension request.
2/11 Final calculations on category, and reimbursement policy shows an increase in CSD's financial burden from ~\$14k to ~\$30k.
3/4 Project was re-categorized twice more, and submitted

Total project costs of 4558 = \$254,640.44

Federally funded, non-disaster projects (HMGP)					
Related Disaster	Project	Description	Completion	Reimbursed?	Reimbursement
4344	512	LHMP: Writing the Plan	100%	95%	\$ 74,404.00
4382	112	Unit 9 Tank: Replacing this tank	0%	0%	\$ 1,300,000.00
4407	57	Generators: Installing at Booster Stations	0%	0%	\$ 1,900,000.00
4558	398	Defensive Space, Ignition Resistant Construction (DSIRC)	0%	0%	\$ 1,400,000.00
4558	428	Water Mains Planning	0%	0%	\$ 500,000.00

Totals:	\$ 5,174,404.00
Actual:	\$ 74,404.00

Unit 9 Tank

1/14 Received response from inquiry "project under FEMA EHP review"

2/25 CalOES representative reports "I will say, we have been seeing EHP reviews go a lot faster in these last few months. I anticipate hearing an update sooner rather than later.... As soon as I hear from FEMA I will let you know."

Generators

2/3 Received updated engineer's estimate on a smaller generator project of \$1M

Defensive Space, Ignition Resistant Construction (DSIRC)

1/28 Meeting with CalOES & BCA Consultants - consensus to merge and phase projects.

1/29 Received documented review of BCA

2/1 Meeting with CalOES regarding phased projects

3/3 Submitted merged and phased project subapplication.

Water Mains Planning

1/15 Notice of invitation to submit project Subapplication

2/2 Authorization of GHD to develop Subapplication

2/12 Change of scope proposed

3/5 Submitted Advanced Assistant Planning Subapplication for

State Funded projects (Prop 1, Prop 68)

Funding Agency	Project	Description	Completion	Reimbursed?	Reimbursement
DWR/IRWM	206	I & I	25%	0%	\$ 187,500.00
DWR/IRWM	205	Unit 9 Tank	5%	0%	\$ 250,000.00
CalOES	PSPS	Generators	0%	0%	\$ 350,000.00
DWSRF	AMI	AMI	5%	0%	\$ 1,600,000.00

Totals:	\$ 2,387,500.00
Actuals:	=

I&I, Unit 9 Tank

1/28 Inquiry to Lake County on status is that they have not received an update from the Grant Manager at DWR.

2/24 CWSRF IUP published. I&I project not on the fundable list.

3/1 IRWM Grant agreement received by Lake County. Sub-agreement in progress

Generators

2/4 This proposal was denied. A score of 90/156 was not competitive enough to win an award of funds.

2/19 Received notification that appeal was denied.

2/26 Submitted Public records request for winning proposal.

AMI

1/28 District's DWSRF contact recommends a construction application be submitted to the DWSRF. They estimate a turnaround time of 6-8 months.

2/22 DWSRF considers HVLCS D not a DAC, and therefore invites HVLCS D to submit a loan application.

3/5 Preliminary planning discussions with InCode.

Potential projects (LHMP)

Priority	Funding Agency	Project	Description	Costs	Notes
1	HMGP (FEMA)	SCADA	Technology refresh	\$ 1,000,000	Initial Feasibility discussions underway, Joined Demarnd Response program to qualify for rebates
1	HMGP (FEMA)	Tanks	Replace wooden tanks	\$ 5,400,000	Subapplication submitted for one tank only, 4558 - NOI
1	HMPG (FEMA)	I & I	Pipe-bursting	\$ 1,000,000	Grant funds awarded for first pipe-bursting
1		RRP, ERP	Requirement of AWIA of 2018	\$ 200,000	Due 3/21, Possible 4482-NOI opportunity
1	HMGP (FEMA)	Water	Correlators, AirVacs, Lines, Meters	\$ 5,500,000	ESCOs can support energy savings projects
2		WMP	Water Master Plan	\$ 100,000	This is 20 years old. Is a reference document for grant applications
2	HMGP (FEMA)	WWTP	EQ Basin, Sludge Beds	\$ 6,000,000	Every flooding disaster in the last 4 years has damaged a portion of the WWTP. Possible developed contributions.
2		SWP	Stormwater Master Plan	\$ 200,000	This is 20 years old. Opportunity for regional benefits.
2		Stormwater	Implement Stormwater Master Plan Improvements	\$ 10,000,000	Phase 1 - Culverts in the Flood detention basin, previous NOI accepted for this activity
2	HMGP (FEMA)	Well	Drill a new well	\$ 4,000,000	Water Resilience, Contamination Mitigation, possible developer assistance
2	FMAG (FEMA)	Fuels Mitigation	Defensible Space, Concrete detention basin, masonry buildings	\$ 400,000	Possible 4558-NOI opportunity
2	FMAG (FEMA)	Hydrants	Improvements	\$ 4,100,000	Previous NOI accepted for this activity
2	PDM (FEMA)	GIS	Fully develop database, O&M	\$ 400,000	Management, maintenance, and communications tool
3		PAP	Public Awareness Program	\$ 200,000	Disaster preparedness, response and recovery
3	HMGP (FEMA)	CL2 valve	Automatic shut-off valve	\$ 50,000	Operator Safety, RMP improvement list
3	HMGP (FEMA)	CL2 Analyzers	Chlorination Basin improvements	\$ 100,000	Flow-based treatment process will streamline WWTP
3	HMGP (FEMA)	Earthquake	Retrofits	\$ 5,000,000	
3		Levee	Certification	TDB	Opportunity for regional benefits, flood insurance
3		Dam	Inundantion Mitigation	TDB	Infrastructure improvements

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: Community Resilience

RECOMMENDATIONS: Staff to pursue alternative solutions to Community Resilience funding.

FINANCIAL IMPACT: Pending review

FUND:

BACKGROUND:

On 10/23/20, staff responded to a Request for Proposal (RFP) from the California Office of Emergency Services' (CalOES) Community Power Resiliency Allocation to Special Districts Program.

On 2/4/21, staff was notified that the District proposal was not selected for funding. Along with this notification came the District's scoring sheet, and appeal guidelines.

On 2/19/21, staff submitted an appeal to the denial of funding decision (See attached Proposal and Appeal).

On 2/26/21, CalOES Legal Affairs denied the appeal.

CalOES legal counsel offered an explanation of the appeals process. Grounds for appeal would be if CalOES staff did not follow their own criteria or processes during proposal review. Since it was determined that this did not happen, the appeal was denied.

13. Certification - This Grant Subaward consists of this title page, the application for the grant, which is attached and made a part hereof, and the Assurances/Certifications. I hereby certify I am vested with the authority to enter into this Grant Subaward, and have the approval of the City/County Financial Officer, City Manager, County Administrator, Governing Board Chair, or other Approving Body. The Subrecipient certifies that all funds received pursuant to this agreement will be spent exclusively on the purposes specified in the Grant Subaward. The Subrecipient accepts this Grant Subaward and agrees to administer the grant project in accordance with the Grant Subaward as well as all applicable state and federal laws, audit requirements, federal program guidelines, and Cal OES policy and program guidance. The Subrecipient further agrees that the allocation of funds may be contingent on the enactment of the State Budget.

14. CA Public Records Act - Grant applications are subject to the California Public Records Act, Government Code section 6250 et seq. Do not put any personally identifiable information or private information on this application. If you believe that any of the information you are putting on this application is exempt from the Public Records Act, please attach a statement that indicates what portions of the application and the basis for the exemption. Your statement that the information is not subject to the Public Records Act will not guarantee that the information will not be disclosed.

15. Official Authorized to Sign for Subrecipient:

Name: Alyssa Gordon

Title: Water Resources Specialist

Payment Mailing Address: 19400 Hartmann Rd

City: Hidden Valley Lake Zip Code+4: 95467-8371

Signature: _____

Date: 10/23/20

16. Federal Employer ID Number: 680048232

(FOR Cal OES USE ONLY)

I hereby certify upon my personal knowledge that budgeted funds are available for the period and purposes of this expenditure stated above.

(Cal OES Fiscal Officer) (Date)

(Cal OES Director or Designee) (Date)

PROJECT CONTACT INFORMATION

Subrecipient: _____ Subaward #: _____

Provide the name, title, address, telephone number, and e-mail address for the project contacts named below.

1. The **Project Director** for the project:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

2. The **Financial Officer** for the project:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

3. The **person** having **Routine Programmatic** responsibility for the project:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

4. The **person** having **Routine Fiscal** responsibility for the project:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

5. The **Executive Director** of a Community Based Organization or the **Chief Executive Officer** (i.e., chief of police, superintendent of schools) of the implementing agency:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

6. The **Official Designated** by the Governing Board to enter into the Grant Subaward for the City/County or Community-Based Organization, as stated in Section 15 of the Grant Subaward Face Sheet:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

7. The **Chair** of the **Governing Body** of the Subrecipient:

Name: _____ Title: _____
Telephone #: _____ Email Address: _____
Address/City/Zip + 4: _____

SIGNATURE AUTHORIZATION INSTRUCTIONS

The Project Director and Financial Officer are **REQUIRED** to sign this form and submit it with the Grant Subaward Forms package. The Subrecipient may request signature authority in addition to the designated Project Director and/or Financial Officer. Space is provided for the addition of up to five (5) additional authorizations for the Project Director or Financial Officer.

No single individual may be authorized to sign for both the Project Director and the Financial Officer. **The Project Director and/or Financial Officer authorize the person(s) identified on the form to sign on their behalf on all grant-related matters.**

SIGNATURE AUTHORIZATION

Subaward #: _____

Subrecipient: _____

Implementing Agency: _____

*The **Project Director** and **Financial Officer** are **REQUIRED** to sign this form.

***Project Director:** _____

Signature: _____

Date: 10/23/20

***Financial Officer:** _____

Signature: Trish Wilkinson

Date: 10/16/2020

The following persons are authorized to sign
for the **Project Director**

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

The following persons are authorized to sign
for the **Financial Officer**

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

CERTIFICATION OF ASSURANCE OF COMPLIANCE

The applicant must complete a Certification of Assurance of Compliance (Cal OES 2-104), which includes details regarding Federal Grant Funds, Equal Employment Opportunity Program, Drug Free Workplace Compliance, California Environmental Quality Act, Lobbying, Debarment and Suspension requirements, Proof of Authority from City Council/Governing Board, and Civil Rights Compliance. The applicant is required to submit the necessary assurances and documentation before finalization of the Grant Subaward. In signing the Grant Subaward Face Sheet, the applicant formally notifies Cal OES that the applicant will comply with all pertinent requirements.

Resolutions are no longer required as submission documents. Cal OES has incorporated the resolution into the Certification of Assurance of Compliance, Section VII, entitled, "Proof of Authority from City Council/Governing Board." The Applicant is required to obtain written authorization (original signature) from the City Council/Governing board that the official executing the agreement is, in fact, authorized to do so, and will maintain said written authorization on file and readily available upon demand. This requirement does not apply to state agencies.

CERTIFICATION OF ASSURANCE OF COMPLIANCE

I, Alyssa Gordon hereby certify that
(official authorized to sign Subaward; same person as Section 15 on Subaward Face Sheet)

Subrecipient: Hidden Valley Lake Community Services District

Implementing Agency: Hidden Valley Lake Community Services District

Project Title: HVLCSD - Generator Supplies

is responsible for reviewing the *Subrecipient Handbook* and adhering to all of the Subaward requirements (state and/or federal) as directed by Cal OES including, but not limited to, the following areas:

I. Federal Grant Funds

Subrecipients expending \$750,000 or more in federal grant funds annually are required to secure an audit pursuant to OMB Uniform Guidance 2 CFR Part 200, Subpart F and are allowed to utilize federal grant funds to budget for the audit costs. See Section 8000 of the Subrecipient Handbook for more detail.

- The above named Subrecipient receives \$750,000 or more in federal grant funds annually.
- The above named Subrecipient does not receive \$750,000 or more in federal grant funds annually.

II. Equal Employment Opportunity – (Subrecipient Handbook Section 2151)

It is the public policy of the State of California to promote equal employment opportunity (EEO) by prohibiting discrimination or harassment in employment because of race, color, religion, religious creed (including religious dress and grooming practices), national origin, ancestry, citizenship, physical or mental disability, medical condition (including cancer and genetic characteristics), genetic information, marital status, sex (including pregnancy, childbirth, breastfeeding, or related medical conditions), gender, gender identity, gender expression, age, sexual orientation, veteran and/or military status, protected medical leaves (requesting or approved for leave under the Family and Medical Leave Act or the California Family Rights Act), domestic violence victim status, political affiliation, and any other status protected by state or federal law. **Cal OES-funded projects certify that they will comply with all state and federal requirements regarding equal employment opportunity, nondiscrimination and civil rights.**

Please provide the following information:

Equal Employment Opportunity Officer: Penny Cuadras

Title: Administrative Services Manager

Address: 19400 Hartmann Rd, Hidden Valley Lake, CA 95467-8371

Phone: 707-987-9201

Email: pcuadras@hvlcsd.org

III. Drug-Free Workplace Act of 1990 – (Subrecipient Handbook, Section 2152)

The State of California requires that every person or organization subawarded a grant or contract shall certify it will provide a drug-free workplace.

IV. California Environmental Quality Act (CEQA) – (Subrecipient Handbook, Section 2153)

The California Environmental Quality Act (CEQA) (*Public Resources Code, Section 21000 et seq.*) requires all Cal OES funded projects to certify compliance with CEQA. Projects receiving funding must coordinate with their city or county planning agency to ensure that the project is compliance with CEQA requirements.

V. Lobbying – (Subrecipient Handbook Section 2154)

Cal OES grant funds, grant property, or grant funded positions shall not be used for any lobbying activities, including, but not limited to, being paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal grant or cooperative agreement.

VI. Debarment and Suspension – (Subrecipient Handbook Section 2155)

(This applies to federally funded grants only.)

Cal OES-funded projects must certify that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of federal benefits by a state or federal court, or voluntarily excluded from covered transactions by any federal department of agency.

VII. Proof of Authority from City Council/Governing Board – (Subrecipient Handbook Section 1350)

The above-named organization (Applicant) accepts responsibility for and will comply with the requirement to obtain a signed resolution from the city council/governing board in support of this program. The applicant agrees to provide all matching funds required for said project (including any amendment thereof) under the Program and the funding terms and conditions of Cal OES, and that any cash match will be appropriated as required. It is agreed that any liability arising out of the performance of this Subaward, including civil court actions for damages, shall be the responsibility of the grant Subrecipient and the authorizing agency. The State of California and Cal OES disclaim responsibility of any such liability. Furthermore, it is also agreed that grant funds received from Cal OES shall not be used to supplant expenditures controlled by the city council/governing board.

The applicant is required to obtain written authorization from the city council/governing board that the official executing this agreement is, in fact, authorized to do so. The applicant is also required to maintain said written authorization on file and readily available upon demand.

VIII. Civil Rights Compliance

The Subrecipient complies with all laws that prohibit excluding, denying or discriminating against any person based on actual or perceived race, color, national origin, disability, religion, age, sex, gender identity, and sexual orientation in both the delivery of services and employment practices and does not use federal financial assistance to engage in explicitly religious activities.

All appropriate documentation must be maintained on file by the project and available for Cal OES or public scrutiny upon request. Failure to comply with these requirements may result in suspension of payments under the grant or termination of the grant or both and the Subrecipient may be ineligible for subaward of any future grants if the Cal OES determines that any of the following has occurred: (1) the Subrecipient has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

CERTIFICATION

I, the official named below, am the same individual authorized to sign the Grant Subaward [Section 15 on Grant Subaward Face Sheet], and hereby swear that I am duly authorized legally to bind the contractor or grant Subrecipient to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

Authorized Official's Signature: Alyssa

Digitally signed by Alyssa
DN: cn=Alyssa, o=HVLCSO, ou=Water Resources,
email=agordon@hvlcsd.org, c=US
Date: 2020.10.19 11:47:58 -07'00'

Authorized Official's Typed Name: Alyssa Gordon

Authorized Official's Title: Water Resources Specialist

Date Executed: 10/20/2020

Federal Employer ID #: 680048232 Federal DUNS # 024132875

Current System for Award Management (SAM) Expiration Date: 10/15/2021

Executed in the City/County of: Hidden Valley Lake

AUTHORIZED BY: (not applicable to State agencies)

- City Financial Officer
- County Financial Officer
- City Manager
- County Manager
- Governing Board Chair

Signature: 

Typed Name: Jim Lieberman

Title: President, Board of Directors

Budget Narrative

HVLCSD is committed to improving power resilience as illustrated in the five year Capital Improvement Plan approved for the Fiscal Year 2020/2021 (www.hvlcsc.org/budget). The line item "PSPS Backup Power Supply" carries a \$50,000 commitment in each of the five years, underscoring HVLCSD's recognition for the need to act upon this vulnerability, but also reflecting the limited means available in which to achieve resilience. CalOES funding for power resilience would enable HVLCSD to achieve \$350,000 worth of improvements.

In 2019, HVLCSD initiated an effort to assess the feasibility of power resilience at the Water Pumping Stations at a total cost of \$2.4M. While this is beyond HVLCSD's means, a value can be derived from the effort to itemize all tasks. The two Water Pumping Stations located at the highest elevations, Greenridge and Unit 9 (Census Tract 6033001200) would cost \$180,200 and \$163,800 respectively. The purchase of these two generators (\$344,000) would help meet the objective of improved power resilience with the procurement of fixed, long term emergency electrical generation equipment for these two pumping stations. The second activity targeted to meet the objective is the purchase of fuel supplies to power pumping stations for a reasonable amount of time (1.5 days). HVLCSD has installed a new diesel fuel tank, with a capacity of 500 gallons. Current pricing to secure a full tank is \$2.12/gal = \$1060. Two generators and 500 gallons of fuel would serve as a significant leap forward in power resilience.

Project Narrative

The Hidden Valley Lake Community Services District (HVLCS D) is a Special District that provides Water & Wastewater services to the Community of Hidden Valley Lake. We are grateful for the opportunity to provide this Grant proposal.

Problem: There is critical infrastructure within this Census Designated Place that is not protected in the event of a power outage. Water pumping stations that deliver drinking water to the community do not have emergency backup power facilities. Public health and safety are at risk when there is no access to drinking water.

Objective: HVLCS D plans to achieve power resiliency with improved preparedness and responsiveness to power outage events.

Activities: To meet the objective of improving power resiliency to this underserved community, HVLCS D is planning two methods of mitigation.

1. Preparedness: The procurement of fixed, long term emergency electrical generation equipment at water pumping stations, and
2. Responsiveness: The purchase of fuel supplies to respond for a reasonable time frame of electric disruption.

Program Plan

1. Hidden Valley Lake Community Services District serves approximately 7500 individuals. Employment demography of residents appear to be equally split between retirees and young families. Most employment opportunities are located in adjacent, more affluent counties (Sonoma, Napa). The type of population in the 95467 zip code (Hidden Valley Lake) was quantified in a 2019 Community Health Needs Assessment as approximately 23.8% over 65 years old, 34.35% of those seniors are disabled, and 4.35% are disabled persons living in poverty.
2. District policy is to allocate 7.7% of Water and 3.3% of Wastewater Use fees to reserve accounts each quarter. The Water Enterprise has two reserve accounts, named Operational and Capital. The Wastewater Enterprise also has two reserve accounts, named Operational and Capital. These are the reserve accounts the District uses in emergencies. In the last five years, the District has been impacted by seven (7) federally declared disasters, forcing us to remain in “react mode” for the last five years. Because the emergency has been on our doorstep, we have not had the opportunity to build reserves. As soon as funds get allocated to reserves, the District uses those funds to respond to disasters.
3. The District has experienced 238 hours of electric disruption due to Public Safety Power Shutoff Events since July 1, 2019.

Subrecipient: Hidden Valley Lake Community Services District Subaward #: _____

4. HVLCSD is requesting \$300,000 to help fund the purchase of supplies to prepare for electric disruption. In conjunction with the committed funds of \$50,000 per year in the District's five-year capital improvement plan, a total of \$350,000 will allow for the purchase of two generators, and appurtenances, as well as fuel reserves(1.5 days). A feasibility study was conducted in 2019, that itemized generator costs. Our mid-level pumping station would require a 350kw generator with sound attenuated enclosure (close proximity to residential housing) at \$180,200. Our upper-level pumping stations would require a 350kw open unit (inside a building) at \$163,800. These costs include permitting, county ordinance, visible sensitivity, and right-sizing for these two locations. HVLCSD has already purchased additional fuel storage in preparation for the upcoming PSPS season. Total costs to secure fuel for this 500-gallon tank was calculated to be \$1,060. In addition to this total cost estimate of \$345,060, we anticipate \$4,940 of in-kind services by staff required to manage and facilitate this project.

Emergency Plan

1. The HVLCSD Water Master Plan, addresses the need for backup generators.

“Backup generators installed at strategic locations throughout the system could help ensure that water can be produced, stored, and distributed to meet the needs of customers regardless of availability of utility electrical supplies.”

The HVLCSD Emergency Response Plan is currently under extensive revision. In accordance with the America’s Water Infrastructure Act (AWIA) of 2018, HVLCSD will develop both a Risk and Resilience Plan (RRP) as well as an Emergency Response Plan (ERP) by June 2021. The AWIA ERP criteria include “Plans and procedures that can be implemented, and identification of **equipment** that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water systems to deliver safe drinking water.”

HVLCSD’s Local Hazard Mitigation Plan (LHMP), approved in July 2020, which focuses exclusively on natural disasters, has recognized extreme heat and wildfire (Sections 4.3.12 and 4.3.15, resp.) as vulnerabilities. Consequently, the Mitigation Action Plan of Chapter 5 includes several projects, of which #2 is

“Generator Project for all Critical Facilities and Infrastructure”

Subrecipient: Hidden Valley Lake Community Services District Subaward #: _____

Priority Funding

Under CPUC guidelines, the community of Hidden Valley Lake is considered disadvantaged. The Department of Water Resources (DWR) Community Mapping Tool identifies the Census Designated place of Hidden Valley Lake to be comprised of two census tracts (6033001200 and 6033001300). Tract 6033001200's Median Household Income (MHI) is below 80% of the County Median income. When researching the potential for funding assistance within the Self-Generating Incentive Program (SGIP), we found that Hidden Valley Lake is considered disadvantaged.

As previously mentioned in the Program Plan, research derived from a 2019 Community Health Needs Assessment helped define the type of population as sensitive or vulnerable. Approximately 23.8% is over 65 years old, 34.35% of those seniors are disabled, and 4.35% are disabled persons living in poverty.



Community Power Resiliency Allocation to Special Districts

APPEAL

Introduction

Thank you for the opportunity to clarify our responses in our proposal. In certain cases, we plan to underscore the validity and importance of previous responses with backup documentation. In other cases, we will provide additional data that more accurately and compellingly presents our argument supporting the proposal. We hope that you will re-consider certain point allocations in support of a more competitive proposal.



PROJECT NARRATIVE, A. Program Plan 1) Describe the number of people and type of population of the special district applying for these funds?

The Hidden Valley Lake Community Services District serves approximately 7500 individuals. Employment demography of residents appear to be equally split between retirees and young families. Most employment opportunities are located in adjacent, more affluent counties (Sonoma, Napa). The type of population in the 95467 zip code (Hidden Valley Lake) was quantified in a 2019 community health needs assessment as approximately 23.8% over 65 years old, 34.35% of those seniors are disabled, and 4.35% are disabled persons living in poverty.

District Score	Potential points
11.67	20

We would like to appeal the score on this item. The two incorporated cities in Lake County, Clearlake and Lakeport have both been awarded Community Power Resiliency Allocations. The American Communities Survey (ACS) (2009 – 2019) estimates Clearlake’s population to be 15,349, and Lakeport’s population at 4,910. The ACS’s conservative estimate of Hidden Valley Lake’s population is 5,539 which fits right in between these two cities. These three communities make up 40% of the entire county¹. We contend that Hidden Valley Lake is an underserved community, and that the intent of this project is to help maintain safe reliable and affordable drinking water to this community.

The cost of water is impactful to this community. Unemployment in Lake County is 30% higher than abutting counties. The number of retirees is 15% higher in Lake County than abutting counties. Poverty levels in Lake County are 150% of abutting counties². In this low income, high unemployment area, the District intends to reduce the potential of water disruption by purchasing generators to be installed at water pumping stations. These statistics show that the Hidden Valley Lake community is disproportionately affected by the cost, and access to drinking water. We would like to avoid passing on the cost of keeping water delivery reliable to our ratepayers during PSPS events.

¹ ACS Population

² Census quick facts



PROJECT NARRATIVE, A. Program Plan 2) Describe the amount of disaster reserve funds compared to the total special district budget?

District policy is to allocate 7.7% of Water and 3.3% of Wastewater Use fees to reserve accounts each quarter. The Water Enterprise has two reserve accounts, named Operational and Capital. The Wastewater Enterprise also has two reserve accounts, named Operational and Capital. These are the reserve accounts the district uses in emergencies. in the last five years, the district has been impacted by seven (7) federally declared disasters, forcing us to remain in “react mode” for the last five years. Because the emergency has been on our doorstep, we have not had the opportunity to build reserves. As soon as funds get allocationed to reserves, the District uses those funds to respond to disasters.

District Score	Potential points
6	20

We are appealing the scoring of this item. Please consider the merit of the last two sentences of this response. In the last five years, we have spent more than we allocated to reserves³. We have been forced to rely on Federal Public Assistance⁴ to maintain our infrastructure and keep our community safe. In 2020 the District has taken definitive action to rise above ‘react’ mode by developing a Local Hazard Mitigation Plan (LHMP) and implementing a five-year rate structure that includes both reserve fortification and capital improvement expenditures⁵. We fear that perhaps the actions of the previous rate study (2015 – 2020) did not accurately portray the renewed sense of urgency for a robust improvement plan. Please consider the fiscal burden that is underscored in this backup documentation, and our most current action to take control of “the unexpected”.

³ Reserve summary

⁴ FEMA worksheets

⁵ Rate Study Excerpts



PROJECT NARRATIVE, A. Program Plan 4) Describe how the Applicant will use the funds to prepare for and respond to power outage events? Did it include amount being requested not to exceed \$300,000?

HVLCSD is requesting \$300,000 to help fund the purchase of supplies to prepare for electric disruption. In conjunction with the committed funds of \$50,000 per year in the District’s five-year capital improvement plan, a total of \$350,000 will allow for the purchase of two generators, and appurtenances as well as fuel reserves (1.5 days). A feasibility study was conducted in 2019, that itemized generators costs. Our mid-level pumping station would require a 350kw generator with sound attenuated enclosure (close proximity to residential housing) at \$180,200. Our upper-level pumping station would require a 350kw generator open unit (inside a building) at \$163,800. These costs include permitting, county ordinance, visible sensitivity, and right-sizing for these two locations. HVLCSD has already purchased additional fuel storage in preparation for the upcoming PSPS season. Total costs to secure fuel for this 500-gallon tank was calculated to be \$1,060. In addition to this total cost estimate of \$345,060, we anticipate \$4,940 of in-kind services by staff required to manage and facilitate this project.

District Score	Potential points
9.33	20

We are appealing the score on this item. We provided budgetary detail on how the funds would be used. The intent is to make sure every resident can continue to have water delivered despite the lack of traditional energy sources. Water must be pushed uphill in order to reach all the homes within the community of Hidden Valley Lake. The energy required to push water from an elevation of 900 feet mean sea level (MSL) to the highest elevations of 2100 MSL is significant⁶.

Our commitment to deliver safe, reliable, and affordable drinking water is contingent upon a reliable source of energy. A power outage event would stop the water from being pushed uphill. The District is looking to ensure drinking water reliability with the implementation of backup power. The purchase of large generators (two 350kw) would help push the water all the way to the highest elevations. According to Census Tract data, the most impoverished portion of our community is at the highest elevation (Tract # 06033001200)⁷. We believe in the urgent need to protect our most vulnerable community members and have found this plan to be the most meaningful.

⁶ Water Schematic

⁷ Census Tracts



PROJECT NARRATIVE, B. Emergency Plan: Describe the portion of the emergency plan that includes power outages, whether resulting from power outage events or for any other reason, or an attestation that power outages, whether resulting from Public Safety Power Shutdown events or for any other reason, will be included the next time their local government revised any portion of the emergency plan?

The HVLCSD Water Master Plan, addresses the need for backup generators. “Backup generators installed at strategic locations throughout the system could help ensure that water can be produced, stored, and distributed to meet the needs of customers regardless of availability of utility electrical supplies.”

The HVLCSD Emergency Response Plan is currently under extensive revision. In accordance with the America’s Water Infrastructure Act (AWIA) of 2018, HVLCSD will develop both a Risk and Resilience Plan (RRP) as well as an Emergency Response Plan (ERP) by June 2021. The AWIA ERP criteria include “Plans and procedures that can be implemented, and identification of **equipment** that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water systems to deliver safe drinking water.”

HVLCSD’s Local Hazard Mitigation Plan (LHMP), approved in July 2020, which focuses exclusively on natural disasters, has recognized extreme heat and wildfire (Sections 4.3.12 and 4.3.15, resp.) as vulnerabilities. Consequently, the Mitigation Action Plan of Chapter 5 includes several projects, of which #2 is “Generator Project for all Critical Facilities and Infrastructure”

District Score	Potential points
24.33	40

We are appealing the score on this item. HVLCSD hereby attests that power outage events, whether resulting from Public Safety Power Shutdown events or for any other reason, will be included the next time the local government (Hidden Valley Lake Community Services District) revises any portion of the Emergency Plan. This attestation was implied in the previous response, but we are happy to formally state this attestation. Our next planned update to the Emergency Plan will take place in the very near future, as we comply with the America’s Water Infrastructure Act (AWIA) of 2018 and develop the RRP and ERP for Water & Wastewater Agencies by June 2021. Please also consider that we are already moving along the path of including power outages in our mitigation strategies as illustrated in our most recent efforts with the first ever Local Hazard Mitigation Plan for this District (2020). Our commitment to the delivery of safe reliable and affordable drinking water is reinforced at every turn with the execution of our plans and actions.



Summary

We hope that we have accurately reflected the urgent need for mitigation of power outage events, and the vulnerability this community faces. Colloquially, we are known as “Ground Zero” for devastating disasters and their consequential damage. The sheer number of disastrous events has put HVLCSD in a react mode. It has been quite a struggle to overcome reaction, and focus on mitigation, which is why we appeal to funding mechanisms to help us get on that track. We owe that much to our ratepayers.

Understandably, when facing such competition for funds, the action of scoring proposals becomes the difference for agencies to be enabled into “mitigation mode” or not. We only ask that our plight be reviewed with the corresponding documentation of this appeal, and that you re-consider some portion of scoring in our proposal.

Thank you,

Alyssa Gordon

Project Manager, HVLCSD

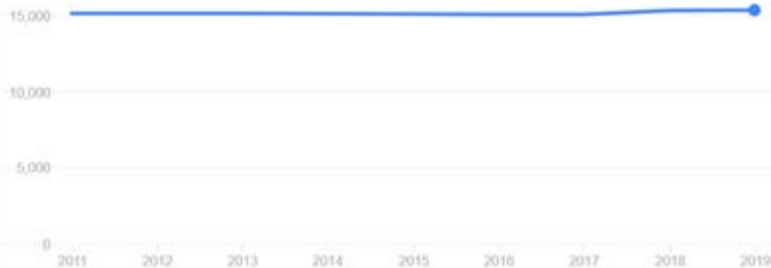


Appendices

Clearlake / Population

1. ACS Population

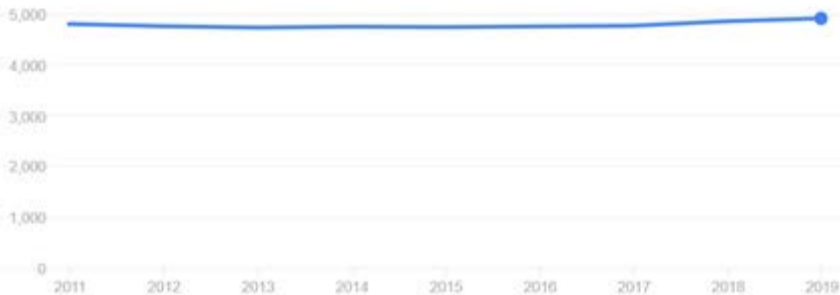
15,349 (2019)



 [Explore more](#)

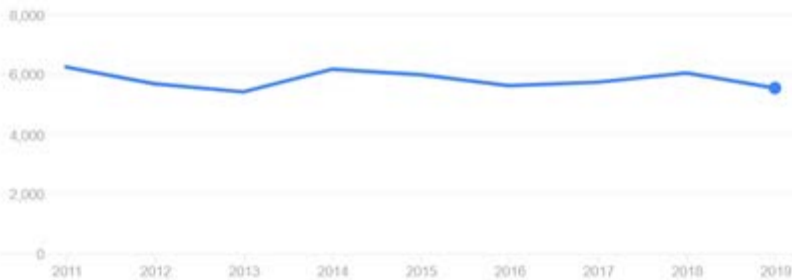
Lakeport / Population

4,910 (2019)



Hidden Valley Lake / Population

5,539 (2019)

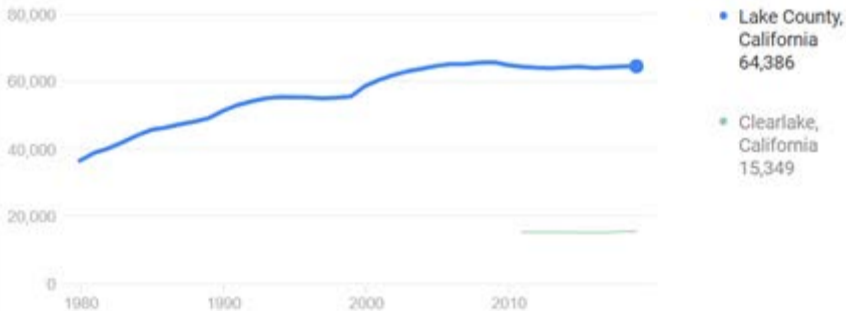


 [Explore more](#)

Sources include: United States Census Bureau

[Feedback](#)

64,386 (2019)



 [Explore more](#)

2. Census Quick Facts

Table

Population	Lakeport city, California	Clearlake city, California	Hidden Valley Lake CDP, California	Lake County, California
Population estimates, July 1, 2019, (V2019)	5,006	15,267	X	64,386
PEOPLE				
Population				
Population estimates, July 1, 2019, (V2019)	5,006	15,267	X	64,386
Population estimates base, April 1, 2010, (V2019)	4,754	15,250	X	64,662
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	5.3%	0.1%	X	-0.4%
Population, Census, April 1, 2010	4,753	15,250	5,579	64,665

[About datasets used in this table](#)

Value Notes

Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info icon to the left of each row in TABLE view to learn about sampling error.

Table

Age and Sex	Napa County, California	Sonoma County, California	Lake County, California
Population estimates, July 1, 2019, (V2019)	137,744	494,336	64,386
PEOPLE			
Age and Sex			
Persons under 5 years, percent	4.8%	4.8%	5.9%
Persons under 18 years, percent	20.2%	19.3%	21.2%
Persons 65 years and over, percent	19.7%	20.7%	23.1%
Female persons, percent	50.2%	51.2%	50.0%

[About datasets used in this table](#)

Value Notes

Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick info icon to the left of each row in TABLE view to learn about sampling error.

Q Enter state, county, city, town, or zip code

-- Select a fact --



CLEAR



TABLE



MAP



CHART



DASHBOARD

Table

Income & Poverty	Napa County, California	Sonoma County, California	Lake County, California
Population estimates, July 1, 2019, (V2019)	137,744	494,336	64,386
PEOPLE			
Income & Poverty			
Median household income (in 2019 dollars), 2015-2019	\$88,596	\$81,018	\$47,040
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$45,195	\$42,178	\$27,362
Persons in poverty, percent	7.4%	7.2%	18.3%

3. Reserve Study

Water & Wastewater Reserves were brought to their lowest point at the end of fiscal year 18/19 (June 30, 2019).
 Disaster 4240 of 2015, disaster 4301&4308 of 2017, and disaster 4434 of 2019
 literally crippled this agency's ability to further protect from disaster.

<u>Fund</u>	<u>Fiscal Year</u>	<u>Beginning Balance</u>	<u>Ending Balance</u>
313	15/16	\$ 473,296.71	\$ 273,709.90
Wastewater Reserve	16/17	\$ 273,709.90	\$ 305,881.31
	17/18	\$ 305,811.31	
	17/18	\$ -	\$ 336,529.56
	18/19	\$ 73,269.08	
	18/19	\$ 263,260.48	\$ 57,119.60
	19/20	\$ -	
	19/20	\$ 57,119.60	\$ 101,632.81
	20/21	\$ 43,100.00	
	20/21	\$ 58,532.71	\$ 130,692.99

<u>Fund</u>	<u>Fiscal Year</u>	<u>Beginning Balance</u>	<u>Ending Balance</u>
325	15/16	\$ -	\$ -
Water Reserve	16/17	\$ -	\$ -
	17/18	\$ -	\$ -
	17/18	\$ -	\$ -
	18/19	\$ -	\$ -
	18/19	\$ -	\$ -
	19/20	\$ -	
	19/20	\$ -	\$ 150,269.64
	20/21	\$ 150,269.64	
	20/21	\$ -	\$ 234,861.15

<u>Fund</u>	<u>Fiscal Year</u>	<u>Beginning Balance</u>	<u>Ending Balance</u>
314	15/16	\$ 470,906.57	\$ 619,760.19
Wastewater CIP	16/17	\$ 619,760.19	\$ 466,564.50
	17/18	\$ 466,564.50	
	17/18	\$ -	\$ 278,624.76
	18/19	\$ 15,157.71	
	18/19	\$ 265,968.03	\$ 125,187.50
	19/20	\$ 32,830.88	
	19/20	\$ 92,356.62	\$ 453,279.98
	20/21	\$ 358,638.50	
	20/21	\$ 94,641.48	\$ 403,991.47

<u>Fund</u>	<u>Fiscal Year</u>	<u>Beginning Balance</u>	<u>Ending Balance</u>
320	15/16	\$ (22.49)	\$ -
Water CIP	16/17	\$ -	\$ -
	17/18	\$ -	
	17/18	\$ -	\$ 6,038.68
	18/19	\$ 6,038.68	
	18/19	\$ -	\$ 66,611.37
	19/20	\$ 66,611.37	
	19/20	\$ -	\$ 148,578.23
	20/21	\$ 148,578.23	
	20/21	\$ -	\$ 226,645.74

4. FEMA Worksheets

Generated Date: 10/02/2018 15:46

Federal Emergency Management Agency
 Project Completion and Certification Report (P.4)
 Disaster: FEMA-4301-DR-CA

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

<u>PW#</u>	<u>Amendment #</u>	<u>Approved Proj. Amt.</u>	<u>Cost Share</u>	<u>Cat</u>	<u>Bundle</u>	<u>Work Done By</u>	<u>Projected Compl. Date</u>	<u>% Compl. at Insp.</u>	<u>Elig Amount</u>	<u>Actual Date Completed</u>	<u>Amt. Claimed by Applicant</u>	<u>Comments</u>
PA-09-CA-4301-PW-00686	0	\$17,875.03	N	B	PA-09-CA-4301-PW-00686(284)	<i>DIC, FAL Contract</i>	08-14-2017	100	\$17,875.03	<i>5/17/17</i>	<i>\$17,875.03</i>	
PA-09-CA-4301-PW-00888	0	\$228,408.58	N	B	PA-09-CA-4301-PW-00888(484)	<i>DIC, FAL Contract</i>	08-14-2017	100	\$228,408.58	<i>5/17/17</i>	<i>\$228,408.58</i>	
Total for 2 PWs:		\$246,283.61									<i>\$246,283.61</i>	
Subgrantee Admin:		\$0.00										
Grand Total:		\$246,283.61										

Generated Date: 10/02/2018 15:46

Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4301-DR-CA

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

Certification

I hereby certify that to the best of my knowledge and belief all work and costs claimed are eligible in accordance with the grant conditions, all work claimed has been completed, and all costs claimed have been paid in full.

Signed: *[Signature]* Date: 12-10-18

Applicant's Authorized Representative

I certify that all funds were expended in accordance with the provisions of the signed FEMA-State Agreement and I recommend an approved amount of \$ _____

Signed: _____ Date: _____

Governor's Authorized Representative

Generated Date: 10/02/2018 15:49

Federal Emergency Management Agency
 Project Completion and Certification Report (P.4)
 Disaster: FEMA-4308-DR-CA

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

PW#	Amendment #	Approved Proj. Amt.	Cost Share	Cat	Bundle	Work Done By	Projected Compl. Date	% Compl. at Insp.	Elig Amount	Actual Date Completed	Amt. Claimed by Applicant	Comments
PA-09-CA-4308-PW-00178	0	\$5,317.17	N	B	PA-09-CA-4308-PW-00178(64)	FAC, DAC, Contract	10-01-2017	100	\$5,317.17	2/23/17	\$ 5,317.17	
PA-09-CA-4308-PW-00195	0	\$416,569.20	N	A	PA-09-CA-4308-PW-00195(41)		10-01-2017	100	\$416,569.20		\$	
PA-09-CA-4308-PW-00342	0	\$55,155.00	N	F	PA-09-CA-4308-PW-00342(722)	Contract	10-01-2018	100	\$55,155.00	4/10/17	\$ 55,155.00	
PA-09-CA-4308-PW-00787	0	\$475,797.50	N	F	PA-09-CA-4308-PW-00787(496)	FAC, DAC, Contract	10-01-2018	8	\$475,797.50	9/30/18	\$ 609,118.04	
Total for 4 PWs:		\$952,838.87										
Subgrantee Admin:		\$0.00										
Grand Total:		\$952,838.87										

Generated Date: 10/02/2018 15:49

Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4308-DR-CA

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

Certification

I hereby certify that to the best of my knowledge and belief all work and costs claimed are eligible in accordance with the grant conditions, all work claimed has been completed, and all costs claimed have been paid in full.

I certify that all funds were expended in accordance with the provisions of the signed FEMA-State Agreement and I recommend an approved amount of \$ _____

Signed: Mark Clapp Date: 12-10-18

Signed: _____ Date: _____

Applicant's Authorized Representative

Governor's Authorized Representative



Logged In on server mvdzdgu4.fema.net as Jan Stout Last Login 05-02-2018 | Session Expires In 27 mins

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Review Applications

- Un-Submitted
- Submitted
- Change Requests
- Withdrawal Requests

Generated Date: 05/02/2018 20:53

**Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4308-DR-CA**

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

Manage Grant Applications

- Create
- Update
- Monitor

Manage Subgrant Applications

- Create
- Update
- Monitor

PW#	Amendment #	Approved Prof. Amt.	Cost Share	Cat	Bundle	Work Done By	Projected Compl. Date	% Compl. at Insp.	Elig Amount	Actual Date Completed	Amt. Claimed by Applicant	Comments
PA-09-CA-4308-PW-00195	0	\$416,569.20	N	A	PA-09-CA-4308-PW-00195(41)	Contract	10-01-2017	100	\$416,569.20	2/28/17	\$417,96.48	

Payment Requests

- Create
- Update
- Review
- Monitor

Total for 1 PWs: \$416,569.20
Subgrantee Admin: \$0.00
Grand Total: \$416,569.20

\$ _____

Disbursement

- Create
- Update
- Disbursed
- Report
- Manage Share

Quarterly Reports

- Performance Reports
- Financial Reports

Inspection Report

- Request
- Update
- Monitor

Reports

- S.1 Report
- S.3 Report
- S.5 Report
- P.2 Report
- ▶ P.4 Report
- P.5 Report
- D.1 Report

Blank Applications

- Print

Recycle Bin

- Monitor

Generated Date: 05/02/2018 20:53

Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4308-DR-CA

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

Certification



I hereby certify that to the best of my knowledge and belief all work and costs claimed are eligible in accordance with the grant conditions, all work claimed has been completed, and all costs claimed have been paid in full.

I certify that all funds were expended in accordance with the provisions of the signed FEMA-State Agreement and I recommend an approved amount of \$ _____

Signed: *Mark Clay* Date: 7-5-18
Applicant's Authorized Representative

Signed: _____ Date: _____
Governor's Authorized Representative

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**Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4434-DR-CA**

Applicant FIPS ID: 033-2277F-00 Applicant/Subdivision Name: HIDDEN VALLEY LAKE COMM SVC

<u>PW#</u>	<u>Amendment #</u>	<u>Approved Proj. Amt.</u>	<u>Cost Share</u>	<u>Cat</u>	<u>Bundle</u>	<u>Work Done By</u>	<u>Projected Compl. Date</u>	<u>% Compl. at Insp.</u>	<u>Elig Amount</u>	<u>Actual Date Completed</u>	<u>Amt. Claimed by Applicant</u>	<u>Comments</u>	
PA-09-CA-4434-PW-00003	0	\$13,975.16	N	F	PA-09-CA-4434-PW-00003(1)	Contract	11-18-2020	100	\$13,975.16	11/18/19	\$ 13,975.16	Already closed	
PA-09-CA-4434-PW-00009	0	\$977,838.20	N	B	PA-09-CA-4434-PW-00009(2)	FAL/Contract	11-18-2019	100	\$977,838.20	11/18/19	\$ 977,838.20	Already closed	
PA-09-CA-4434-PW-00095	0	\$178,782.00	N	C	PA-09-CA-4434-PW-00095(181)	FAL/Contract	11-18-2020	0	\$178,782.00	11/10/20	\$ 136,834.20		
PA-09-CA-4434-PW-00152	0	\$35,542.60	N	F	PA-09-CA-4434-PW-00152(110)	FAL/Contract	11-18-2020	0	\$35,542.60	12/31/20	\$ \$29,089.11	Already closed	
PA-09-CA-4434-PW-00205	0	\$41,635.00	N	A	PA-09-CA-4434-PW-00205(124)	FAL/Contract	11-18-2019	100	\$41,635.00	9/18/20	\$ \$41,635.00	Already closed	
PA-09-CA-4434-PW-00268	0	\$62,388.65	N	Z	PA-09-CA-4434-PW-00268(231)	DMC	05-18-2027	0	\$62,388.65	11/20/20	\$ \$29,050.17	Already closed	
Total for 6 PWs:											\$1,310,161.61	\$ 1,228,421.84	
Subgrantee Admin:											\$0.00		
Grand Total:											\$1,310,161.61		

Generated Date: 12/16/2020 22:30

**Federal Emergency Management Agency
Project Completion and Certification Report (P.4)
Disaster: FEMA-4434-DR-CA**

Applicant FIPS ID: 033-2277F-00 **Applicant/Subdivision Name:** HIDDEN VALLEY LAKE COMM SVC

Certification

I hereby certify that to the best of my knowledge and belief all work and costs claimed are eligible in accordance with the grant conditions, all work claimed has been completed, and all costs claimed have been paid in full.

Signed: _____ Date: 1-29-2021

Applicant's Authorized Representative

I certify that all funds were expended in accordance with the provisions of the signed FEMA-State Agreement and I recommend an approved amount of \$ _____

Signed: _____ Date: _____

Governor's Authorized Representative

5. Rate Study Excerpts

Figure 2. Summary of Water Capital Project Costs

Funded Priority	Project Description	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
1	Wildfire Resilience/Reliable Water Supply/Replace wooden tanks	\$ 180,000	\$ 405,000	\$ 405,000	\$ 405,000	\$ 405,000
3	Disaster mitigation/SCADA Upgrade	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
2	Reliable Water Supply/Automatic Metering Infrastructure	\$ 200,000	\$ 320,000	\$ 320,000	\$ 320,000	\$ 320,000
4	Wildfire Resilience/ Reliable Water Supply/PSPS Backup power supply	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
7	IT Upgrades/Records Retention/Increase storage capacity				\$ 50,000	
5	Reliable Water Supply/Leak Repair/Mini-Excavator		\$ 25,000	\$ 25,000		
6	Regulatory Compliance/Dump Truck		\$ 37,500	\$ 37,500		
Total CIP Priority Projects		\$ 460,000	\$ 867,500	\$ 867,500	\$ 855,000	\$ 805,000

Figure 5. Summary of Water Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Prop 218 Rate Period				
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Reserve					
Ending Balance	\$ 359,881	\$ 141,250	\$ 68,274	\$ 239,222	\$ 490,000
<i>Target Ending Balance (90-days of O&M Costs)</i>	<i>429,000</i>	<i>441,000</i>	<i>457,000</i>	<i>473,000</i>	<i>490,000</i>
Water Capital Fund					
Transfer of Operating Surplus & Grants	\$ 180,270	\$ 45,270	\$ 2,770	\$ 52,770	\$ 102,770
Use of Reserves for Capital Projects	\$ (135,000)	\$ (142,500)	\$ -	\$ -	\$ -
Ending Balance	\$ 45,270	\$ 2,770	\$ 52,770	\$ 102,770	\$ 345,039
<i>Target Ending Balance (3% of Net Capital Assets)</i>	<i>193,200</i>	<i>212,600</i>	<i>231,500</i>	<i>249,400</i>	<i>265,400</i>
Debt Reserve					
Ending Balance	\$ 170,746	\$ 170,416	\$ 170,075	\$ 169,721	\$ 169,355
<i>Target Ending Balance (Annual Debt Service)</i>	<i>170,746</i>	<i>170,416</i>	<i>170,075</i>	<i>169,721</i>	<i>169,355</i>
Total Ending Balance	\$ 575,897	\$ 314,436	\$ 291,119	\$ 511,713	\$ 1,004,394
<i>Total Recommended Minimum Target</i>	<i>792,946</i>	<i>824,016</i>	<i>858,575</i>	<i>892,121</i>	<i>924,755</i>

Figure 14. Summary of Sewer Capital Project Costs

Project Description	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025
Regulatory Compliance /I&I Mitigation	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Disaster Mitigation/SCADA Upgrade	\$ 30,000	\$ 30,000	\$ 90,000		
Disaster recovery/WWTP Access Road repair					
Reliable Water Supply/Leak Repair/Mini-Excavator		\$ 25,000	\$ 25,000		
Risk Management Plan/Chlorine Tank Auto Shut-Off		\$ 45,000			
Regulatory Compliance/Dump Truck		\$ 37,500	\$ 37,500		
IT Upgrades/Records Retention/Increase storage capacity				\$ 50,000	
Stormwater Master Planning/Mitigation	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000	\$ 50,000
Regulatory Compliance/Manhole Rehab		\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000
Total Projects	\$ 140,000	\$ 297,500	\$ 312,500	\$ 250,000	\$ 250,000

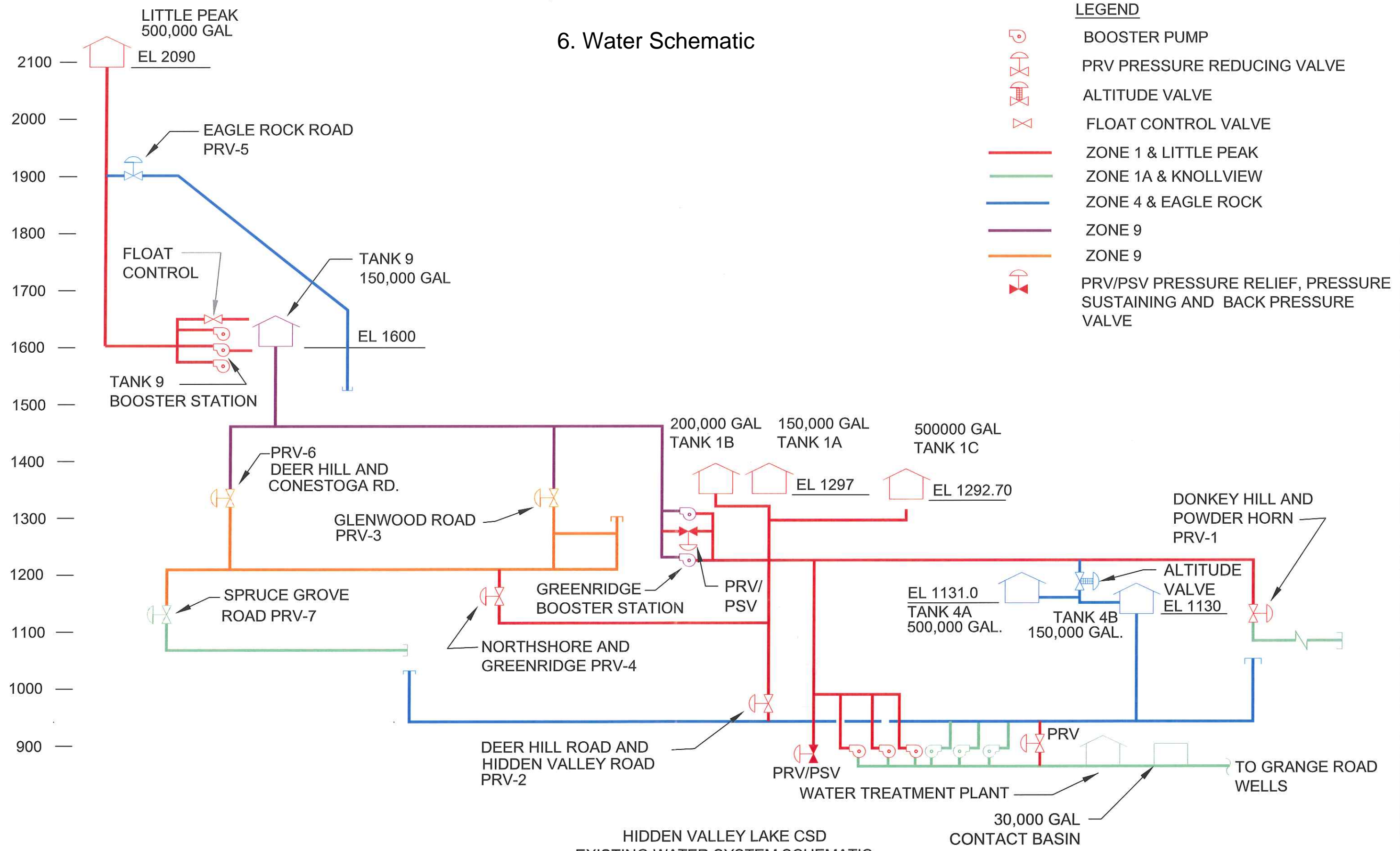
1. CIP expenditures provided by District Staff as of 9-17-20.

Figure 17. Summary of Sewer Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Prop 218 Rate Period				
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Reserve					
Ending Balance	\$ (27,743)	\$ 5,879	\$ 82,740	\$ 136,623	\$ 331,664
<i>Target Ending Balance (90-days of O&M Costs)</i>	<i>412,000</i>	<i>424,000</i>	<i>437,000</i>	<i>451,000</i>	<i>465,000</i>
Sewer Capital Fund					
Transfer In of Operating Reserve Surplus	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Reserves for Capital Projects	\$ 229,000	\$ (306,425)	\$ (209,855)	\$ -	\$ -
Ending Balance	\$ 682,280	\$ 375,855	\$ 166,000	\$ 166,000	\$ 166,000
<i>Target Ending Balance (3% of Net Capital Assets)</i>	<i>141,000</i>	<i>164,000</i>	<i>166,000</i>	<i>168,000</i>	<i>171,000</i>
Debt Reserve					
Ending Balance	\$ 32,310	\$ 32,310	\$ 32,310	\$ 32,310	\$ 32,310
<i>Target Ending Balance (Annual Debt Service)</i>	<i>32,310</i>	<i>32,310</i>	<i>32,310</i>	<i>32,310</i>	<i>32,310</i>
Total Ending Balance	\$ 686,847	\$ 414,044	\$ 281,050	\$ 334,933	529,974
<i>Total Recommended Minimum Target</i>	<i>\$ 585,310</i>	<i>\$ 620,310</i>	<i>\$ 635,310</i>	<i>\$ 651,310</i>	668310

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6. Water Schematic



LEGEND

- BOOSTER PUMP
- PRV PRESSURE REDUCING VALVE
- ALTITUDE VALVE
- FLOAT CONTROL VALVE
- ZONE 1 & LITTLE PEAK
- ZONE 1A & KNOLLVIEW
- ZONE 4 & EAGLE ROCK
- ZONE 9
- ZONE 9
- PRV/PSV PRESSURE RELIEF, PRESSURE SUSTAINING AND BACK PRESSURE VALVE

HIDDEN VALLEY LAKE CSD EXISTING WATER SYSTEM SCHEMATIC

30,000 GAL CONTACT BASIN


FIGURE 2.2

7. Census Tracts




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Population 3,419
Households (HH) 1,381
Median HH Income (\$) - 44,095


Legend


 HVLCSDBoundary2

Censustracts

TRACT

 001200

 001300

 <all other values>

95569077845 0 955690

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: DSIRC

RECOMMENDATIONS: Staff to continue to keep committee members informed of project progress.

FINANCIAL IMPACT: \$1.4M

FUND: 320

BACKGROUND:

On 3/3/21 the Defensive Space Ignition Resistant Construction (DSIRC) HMGP Subapplication was submitted to CalOES (See attached).

The scope has changed a bit since the Notice of Intent (NOI) was approved on 12/31/20. Originally two projects were proposed under this funding program. One project would focus on Tank 4 replacement, and the other project would focus on vegetation thinning and protecting wellheads.

Staff reviewed a first draft of vegetation thinning Subapplication with CalOES and FEMA consultants. It was determined that both project activities overlapped each other, and it would be necessary to combine both projects. During this same review, staff was also directed to re-structure the Subapplication into two phases. The phased approach would allow for District staff to develop the application without the upfront expense of engineering efforts. If the Subapplication was approved, the first phase activities would consist of those engineering efforts, subsidized by HMGP. FEMA agreed with this scope change, and a new project was underway.

The Subapplication will be reviewed by CalOES before submitting to FEMA. CalOES's schedule for submitting subapplications to FEMA is in late August. Beyond August, FEMA's review timelines are unknown. Staff can only estimate a response from FEMA based on past experience. The HMGP Tank replacement project of 4382-112 was submitted in April 2019. We continue to await a response from this Subapplication.



0. Table of Contents
1. Subapplication
 - a. DSIRC Subapplication
2. Scope of Work
 - a. HVLCSD Defensive Space and Ignition Resistant Construction (DSIRC) SOW
3. Designs
 - a. NFPA Suggestions
 - b. California Building Code 2016 IRC Excerpts
 - c. Fire Marshall Guidance
 - d. PRC_4291
 - e. 4382-112 Design plans
 - f. 4407-57 Design plans
4. Studies
 - a. Excerpts – Fire Weather Research Laboratory
 - b. CalForestFoundation-org
5. Maps
 - a. Map – Little Peak
 - b. Map – Unit 9
 - c. Map – Tank 4
 - d. Map – Wellfield
 - e. Map – Vicinity&Staging
 - f. Map – FIRM Wellfield
6. Photos
 - a. Photos DSIRC
7. Schedule
 - a. DSIRC – Gantt project Planner
8. Cost Estimate
 - a. Telstar Structure Quote
 - b. Cost Estimate Spreadsheet – DSIRC
 - c. Cost Estimate Narrative
 - d. Pay Rate
 - e. Design & CM Work Estimate 041619
 - f. 4407-57 Geotech quote
 - g. 4382-112 Cost Estimate Narrative
 - h. LCS Proposal 4407-57
 - i. Base & Pea Gravel
 - j. Superior Tank Estimate
 - k. 4382-112 Construction cost estimate spreadsheet
 - l. 4407-57 Geotech quote
 - m. 4382-112 Geotech quote
9. Match



HVLCSD Defensive Space and Ignition Resistant Construction
(DSIRC) Table of Contents

DR4558-PJ398

- a. Match Commitment Letter
- 10. BCA Report
 - a. 4558-398 BCA 3-2-21
 - b. BCA.zip
 - c. Technical Memo BCA
- 11. Maintenance
 - a. Maintenance Letter
- 12. Environmental
 - a. 4382-112 WRA Environmental Study
 - b. 4407-57 EPPI Environmental Study
- 13. Authorization
 - a. Resolution 2021-01 Designation of Subrecipient Agent
- 14. Supporting Docs
 - a. CFHSZ
 - b. Fire History of Lake Co Memo
 - c. Weed Abatement Guidelines
 - d. CPUC Fire Threat Map
 - e. NFPA – Brochure
 - f. Resolution 2014-11

HAZARD MITIGATION GRANT PROGRAM PROJECT SUBAPPLICATION

DISASTER NUMBER:	4558
JURISDICTION NAME:	Hidden Valley Lake Community Services District
PROJECT TITLE:	Defensive Space and Ignition Resistant Construction (DSIRC)
PROJECT NUMBER:	398

PROJECT NUMBER IS THE CONTROL NUMBER RECEIVED AT TIME OF SUCCESSFUL NOI SUBMITTAL



Cal OES
**GOVERNOR'S OFFICE
OF EMERGENCY SERVICES**

HAZARD MITIGATION GRANT PROGRAM (HMGP)

INTRODUCTION

INTRODUCTION

As a result of a major disaster declaration by the President of the United States, the State of California is eligible for HMGP funding. The State has established priorities to accept project subapplications from subapplicants state-wide including, state agencies, Federally Recognized Tribes, local governments, and Private Non-Profits consistent with Title 44 of the Code of Federal Regulations (44CFR), Part 206.2.

Eligible hazard mitigation activities are intended to reduce or eliminate damages to life and improved property. Activities include cost effective hazard mitigation projects, and hazard mitigation planning activities approvable by the Federal Emergency Management Agency (FEMA).

PUBLIC ASSISTANCE

HMGP does not fund repairs for damages that result after a disaster. If your project proposes repairing a damaged facility resulting from a disaster, contact the Public Assistance (PA) Program at disasterrecovery@caloes.ca.gov.

TIME EXTENSIONS

Time extensions may be requested, and will be evaluated on a case-by-case basis. To request additional time to submit a subapplication, send an email to the HMA@caloes.ca.gov mailbox. The subject line must include: "Subapplication Time Extension Request (include Disaster Number and Project Control Number)". The body of the message must include justification and specific details supporting why more time is needed and how much additional time is requested.

QUESTIONS

Submit all HMGP subapplication questions to the following mailbox: HMA@caloes.ca.gov

HAZARD MITIGATION GRANT PROGRAM REGULATIONS

REGULATIONS

Federal funding is provided under the authority of the [Robert T. Stafford Emergency Assistance and Disaster Relief Act \(Stafford Act\)](#) through FEMA and the California Governor's Office of Emergency Services (Cal OES). Cal OES is responsible for identifying program priorities, reviewing subapplications and forwarding recommendations for funding to FEMA. FEMA has final approval for activity eligibility and funding.

The federal regulations governing HMGP are found in Title 44 of the Code of Federal Regulations (44CFR), Part 201 (Planning) and Part 206 (Projects) and in Title 2 of the Code of Federal Regulations (2CFR), Part 200 (Uniform Administrative Requirements).

The Council on Environmental Quality (CEQ) has developed regulations to implement the National Environmental Policy Act (NEPA). These regulations, as set forth in Title 40, Code of the Federal Regulations (CFR) Parts 1500-1508, require an investigation of the potential environmental impacts of a proposed federal action, and an evaluation of alternatives as part of the environmental assessment process. The FEMA regulations that establish the agency-specific process for implementing NEPA are set forth in 44 CFR Part 10. FEMA will undertake the NEPA clearance process.

The subapplicant is responsible for complying with the regulations set forth in the California Environmental Quality Act (CEQA) (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387) and any other state/local permits or requirements.

FEMA GUIDANCE

FEMA requires that all projects adhere to the [Hazard Mitigation Assistance Unified Guidance 2015](#).

HAZARD MITIGATION GRANT PROGRAM ELIGIBILITY CHECKLIST

Before completing the subapplication, review the following HMGP eligibility checklist to ensure project meets the requirements for HMGP funding.

- Construction/Ground Breaking:** No construction or ground breaking activities are allowed prior to FEMA approval. HMGP does not fund projects that are in progress or projects that have already been completed.
- Approved Notice of Interest:** Subapplicant must have an approved Notice of Interest (NOI) to submit a subapplication for HMGP funding. Only activities approved through the NOI process can be submitted for HMGP funding consideration. The approved NOI must be consistent with the subapplication submitted.
- Scope of Work:** The project scope of work (SOW) must be consistent with the SOW provided in the approved Notice of Interest (NOI).
- Benefit Cost Analysis:** Benefit Cost Analysis (BCA) Toolkit Version 6.0 must be used to conduct the BCA. FEMA will only consider subapplications that use a FEMA-approved BCA methodology. Documentation to support BCA must be included in subapplication. Projects with a benefit cost ratio (BCR) of less than 1.0 will not be considered. BCA will be verified by FEMA and Cal OES upon subapplication submittal. 5% Initiative Projects do not need a BCA.
- Subapplicant Eligibility:** Subapplicant must be an eligible State Agency, Local Government (City, County, Special Districts), Federally Recognized Tribe or Private Nonprofit (PNP) Organization. PNP is defined as private nonprofit educational, utility, emergency, medical, or custodial care facility, facilities providing essential governmental services to the general public and such facilities on Indian reservations (see 44 CFR Sections 206.221(e) and 206.434(a)(2)).
- LHMP/MJHMP:** Subapplicant must have a FEMA approved and adopted Local Hazard Mitigation Plan (LHMP), or be participating in a Multi-Jurisdictional LHMP, to be eligible for HMGP funding. If a jurisdiction has its own governing body, jurisdiction must be covered under its own plan. LHMP/Multi-Jurisdictional LHMP's expire five years after FEMA approval. Failure to update plan before expiration date may cause project deobligation.
- Cost Share:** Local funding match of 25% of the total project cost is required by the subapplicant. HMGP matching funds must be from a non-federal source. State does not contribute to local funding match.
- Period of Performance:** Projects must be completed (including close-out) within the 36 month Period of Performance (POP). POP begins upon FEMA approval of the subapplication.

**HAZARD MITIGATION GRANT PROGRAM
ELIGIBILITY CHECKLIST
(continued)**

- Complete Subapplication:** Failure to include all required documentation will delay the processing of your subapplication and may result in denial of project. The SOW, cost estimate, cost estimate narrative, work schedule and BCA must accurately mirror each other to be considered for funding. The budget narrative must include a detailed description of every cost estimate line-item, including the methodology used to estimate each cost.

- Regulations:** Subapplications that are inconsistent with state and federal HMGP regulations, or do not meet eligibility criteria will not be considered.



SUBAPPLICANT MUST BE ABLE TO CHECK EVERY BOX TO QUALIFY FOR HMGP FUNDING.

SUBAPPLICATION FORMAT INSTRUCTIONS

Cal OES requires the following format to be used for all HMGP subapplications. Two complete subapplications must be submitted to Cal OES. Each subapplication must be on two separate CD-RWs. The first copy is logged and retained for Cal OES records. The second copy will be forwarded to FEMA for review and final determination.

COMPLETE SUBAPPLICATION PACKAGE CONSISTS OF THE FOLLOWING:

TWO identical CD-RWs must include functional electronic versions of all subapplication documents/attachments

- Attachments must be in one of the following formats: Microsoft Word Version 2007 (or newer), Microsoft Excel or Adobe PDF
- Benefit Cost Analysis (BCA) 6.0 must be included in a .zip file format
- All electronic attachments must be clearly titled

ORGANIZATION OF THE SUBAPPLICATION MUST BE IN THE FOLLOWING FORMAT:

0. Table of Contents
1. Subapplication
2. Scope of Work
3. Designs
4. Studies
5. Maps
6. Photos
7. Schedule (Additional documentation work schedule components, Gantt chart, etc.)
8. Cost Estimate ([HMGP Cost Estimate Spreadsheet](#) and cost estimate narrative)
9. Match ([Local Match Commitment Letter Template](#))
10. BCA Report ([BCA Version 6.0](#) report and BCA supporting documentation)
11. Maintenance ([Project Maintenance Letter Template](#))
12. Environmental ([FEMA's Site Information, Environmental Review and Checklist](#) and all other environmental documentation)
13. Authorization ([Agent Resolution Form](#))
14. Supporting Docs (Any additional supporting documentation)

MAIL OR DELIVER COMPLETED SUBAPPLICATIONS TO:

California Governor's Office of Emergency Services
Hazard Mitigation Grants Program Unit
Attention: HMGP
3650 Schriever Avenue
Mather, CA 95655

PROJECT SUBAPPLICATION FORM

SUBAPPLICANT INFORMATION

1. **SUBAPPLICANT:**
NAME OF STATE AGENCY, TRIBAL GOVERNMENT, LOCAL GOVERNMENT, PRIVATE NON-PROFIT OR SPECIAL DISTRICT APPLYING FOR FUNDING

2. **TYPE:** STATE/LOCAL GOVERNMENT **FEDERALLY RECOGNIZED** TRIBE PRIVATE NON-PROFIT SPECIAL DISTRICT

3. **FIPS #:** IF YOU DO NOT KNOW YOUR FEDERAL IDENTIFICATION PROCESSING SYSTEM NUMBER (FIPS #), REQUEST BY EMAILING THE HMA@CALOES.CA.GOV MAILBOX

4. **DUNS #:** IF YOU DO NOT KNOW YOUR DATA UNIVERSAL NUMBERING SYSTEM (DUNS) #, CALL DUN & BRADSTREET (D&B) @ 1-866-705-5711 FOR INFORMATION

5. **COUNTY:** THE NAME OF THE COUNTY WHERE THE PROPOSED PROJECT IS LOCATED

6. **POLITICAL DISTRICT NUMBERS:** CONGRESSIONAL: STATE ASSEMBLY: STATE LEGISLATIVE: PROVIDE ONLY THE NUMBERS OF THE POLITICAL DISTRICTS FOR THE SUBAPPLICANT

7. **PRIMARY CONTACT:**
POINT OF CONTACT FOR YOUR PROJECT. CAL OES WILL CONTACT THIS PERSON FOR QUESTIONS AND/OR REQUESTS FOR INFORMATION

NAME: Mr. Ms. **FIRST:** **LAST:**
TITLE:
ORGANIZATION:
ADDRESS:
CITY: **STATE:** **ZIP CODE:**
TELEPHONE: **FAX:**
EMAIL:

8. **ALTERNATIVE CONTACT:**
BACK-UP POINT OF CONTACT FOR YOUR PROJECT. CAL OES WILL CONTACT THIS PERSON IF PRIMARY CONTACT IS UNAVAILABLE

NAME: Mr. Ms. **FIRST:** **LAST:**
TITLE:
ORGANIZATION:
ADDRESS:
CITY: **STATE:** **ZIP CODE:**
TELEPHONE: **FAX:**
EMAIL:

LOCAL HAZARD MITIGATION PLAN INFORMATION

9. LOCAL HAZARD MITIGATION PLAN (LHMP) REQUIREMENT:

i A FEMA approved and locally adopted LHMP is required to receive federal funding for all project subapplication activities. Subapplicants for HMGP funding must have a FEMA-approved Mitigation Plan in place at the time of sub-award. Subapplication will be reviewed to ensure that the proposed activity is in conformance with subapplicant’s plan.

A. NAME/TITLE OF YOUR LHMP: Local Hazard Mitigation Plan of March 2020

<p>B. LOCAL SINGLE JURISDICTIONAL MULTHAZARD MITIGATION PLAN:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">DATE SUBMITTED TO CAL OES:</td> <td style="width: 20%; text-align: center;">3/31/20</td> </tr> <tr> <td>DATE APPROVED BY FEMA:</td> <td style="text-align: center;">6/23/20</td> </tr> <tr> <td>DATE ADOPTED BY LOCAL AGENCY:</td> <td style="text-align: center;">6/29/20</td> </tr> </table>	DATE SUBMITTED TO CAL OES:	3/31/20	DATE APPROVED BY FEMA:	6/23/20	DATE ADOPTED BY LOCAL AGENCY:	6/29/20	OR	<p>LOCAL MULTI JURISDICTIONAL MULTHAZARD MITIGATION PLAN:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">DATE SUBMITTED TO CAL OES:</td> <td style="width: 20%;"></td> </tr> <tr> <td>DATE APPROVED BY FEMA:</td> <td></td> </tr> <tr> <td>DATE ADOPTED BY LOCAL AGENCY:</td> <td></td> </tr> <tr> <td>LEAD AGENCY:</td> <td></td> </tr> </table>	DATE SUBMITTED TO CAL OES:		DATE APPROVED BY FEMA:		DATE ADOPTED BY LOCAL AGENCY:		LEAD AGENCY:	
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DATE APPROVED BY FEMA:																
DATE ADOPTED BY LOCAL AGENCY:																
LEAD AGENCY:																

C. IF YOUR PROJECT IS REFERENCED IN YOUR LHMP, INDICATE WHERE THE PROPOSED PROJECT CAN BE FOUND; USE N/A FOR NOT APPLICABLE BOXES:

CHAPTER	PART	SECTION	PAGE
5	N/A	4	16-17,45-46

STOP DO NOT INCLUDE A COPY OF YOUR PLAN WITH SUBAPPLICATION.

D. PROVIDE A SHORT NARRATIVE DETAILING HOW YOUR PROJECT ALIGNS WITH THE RISK AND HAZARD ASSESSMENTS, STRATEGIES, GOALS AND/OR OBJECTIVES OF YOUR PLAN:

This Defensive Space and Ignition Resistant Construction (DSIRC) Project removes or reduces combustible materials from the vicinity of critical infrastructure, and protects critical infrastructure with ignition-resistant construction materials.

The Calfire Fire Hazards Severity Zones (CFHSZ) Map of 11/28/20, shows the community significantly covered in "High" and "Very High" fire zones (See Section 14. Supporting Docs, "CFHSZ.pdf"). The entire community is only three (3) square miles surrounded by dense forest. A major wildfire could quickly transition to suburban conflagration across the entire community. This county alone has seen an average of two (2) major fires every year for the last five years (See Section 14. Supporting Docs, "Fire History of Lake co.pdf").

The LHMP's Goal 1, Objective 2 is to "Provide protection and reduce damages to HVLCSO critical infrastructure and services and minimize disruption". Goal 4 is to "Increase and maintain wildfire prevention and protections". Given the history of fires, and the particular devastation brought by the Valley Fire of 2015, HVLCSO's LHMP is very focused on mitigation efforts to protect infrastructure from wildfire. This project is aligned with these goals and objectives because this particular mitigation action, is specifically identified in two mitigation action plans of the LHMP.

COMMUNITY INFORMATION

10. COMMUNITY PARTICIPATION:

A. CHECK BOX(ES) IF YOUR COMMUNITY PARTICIPATES IN ANY OF THE FACTORS BELOW:

Select a column appropriate to your type of project. Acronyms include: Community Wildfire Protection Plan (CWPP), California Environmental Quality Act (CEQA), Community Rating System (CRS) Plan and Unreinforced Masonry (URM) Participation.

FIRE	FLOOD	EARTHQUAKE
<input checked="" type="checkbox"/> CWPP, FIRE WIRE, FIRE SAFE	<input type="checkbox"/> CRS PLAN	<input type="checkbox"/> SHAKEOUT DRILL PARTICIPATION
<input type="checkbox"/> CURRENT CEQA ACTIVITY	<input type="checkbox"/> CURRENT CEQA ACTIVITY	<input type="checkbox"/> CURRENT CEQA ACTIVITY
<input checked="" type="checkbox"/> DEFENSIBLE SPACE	<input type="checkbox"/> HYDROLOGY STUDY	<input type="checkbox"/> URM PARTICIPATION

B. PROVIDE A NARRATIVE DESCRIPTION OF ALL OF FACTORS SELECTED FROM LIST ABOVE:

Hidden Valley Lake is a Firewise Community in good standing. The residents, the homeowners association, and HVLCS D have taken measures to mitigate the risk of wildfire in the community (See Section 14. Supporting Docs, "Weed abatement Guidelines.pdf"). Appropriate landscaping, fire sirens, and an emergency notification plan are some of the highlights of this mitigation effort. This Defensive Space and Ignition Resistant Construction is a further extension of this commitment.

Lake County's Community Wildfire Protection Plan also supports "projects that reduce the risks and hazards from wildfire while protecting conservation values in Lake County". The critical infrastructure that will be protected by this project are water tanks and groundwater wells, the cornerstone for providing safe reliable drinking water, while putting this natural resource to the most beneficial use.

C. IS YOUR JURISDICTION REQUIRED TO PROVIDE PUBLIC NOTICE OF THIS PROJECT?

Yes No If yes, provide details:

PROJECT INFORMATION

11. PROJECT TITLE:

MUST USE THE SAME PROJECT TITLE ORIGINALLY USED IN THE APPROVED NOTICE OF INTEREST (NOI). IF YOU NEED TO CHANGE YOUR PROJECT TITLE, CONTACT CAL OES AT HMA@CALOES.CA.GOV

12. PROJECT LOCATION:

A. IDENTIFY THE COUNTY/COUNTIES WHERE THE ACTIVITY WILL OCCUR:

Lake

B. LATITUDE/LONGITUDE COORDINATES:

FEMA requires that all projects be geo-coded using latitude and longitude (lat/long) using NAD-83 or WGS-84 datum. The lat/long coordinates must be expressed in degrees including five or more decimal places (e.g., latitude 36.999221, longitude -109.044883).

LATITUDE	LONGITUDE
38.797563	-122.553753



IF THERE ARE MORE THAN ONE SET OF LAT/LONG COORDINATES, PROVIDE ON SEPARATE DOCUMENT AND ADD TO MAP SECTION.

C. STRUCTURE COORDINATES:

- For projects that protect buildings or other facilities, provide coordinates for each structure at either the front door of the structure or the intersection of the public road and driveway that is used to access the property.
- For large activity areas, such as detention basins or vegetation management projects, the location must be described by three or more coordinates that identify the boundaries of the project.
- The polygon created by connecting the coordinates must encompass the entire project area.

Four major areas of mitigation are 1. Little Peak parcel area, 2. Unit 9 Tank Easement area, 3. Tank 4 parcel area, and 4. Wellfield Easement area. The coordinates are as follows;

1. Little Peak parcel area - See Section 5. Maps "Map - Little Peak.pdf"

A: 38.833302, -122.563883

B: 38.831398, -122.563364

C: 38.831391, -122.562308

D: 38.833298, -122.562714

2. Unit 9 Tank Easement area - See Section 5. Maps "Map - Unit 9.pdf"

A: 38.825934, -122.566739

B: 38.825596, -122.566245

C: 38.824717, -122.564075

3. Tank 4 parcel area - See Section 5. Maps "Map - Tank 4.pdf"

A: 38.796854, -122.549433

B: 38.795968, -122.546334

C: 38.796826, -122.548341

4. Wellfield - See Section 5. Maps "Map - Wellfield.pdf"

A: 38.780154, -122.556556

B: 38.780697, -122.556198

C: 38.782792, -122.555066

D. STAGING AREA:

Describe the project staging area. This is the area where the project equipment, materials and/or debris will be staged. Include a vicinity map with the proposed staging area(s) in the map section.

The staging areas will be within the four major areas of mitigation, which are

1. Little Peak parcel area,
2. Unit 9 Tank easement area,
3. Tank 4 parcel area, and
4. Wellfield easement area.

See Section 5. Maps "Map - Vicinity&Staging.pdf"



AERIAL MAP(S) OF STAGING AREA(S) MUST BE INCLUDED IN SUBAPPLICATION.

E. SEA LEVEL RISE (SLR):

1. Is the risk to the project increased by SLR due to project location and project activity type? Yes No

2. Was SLR considered and included in the mitigation measures implemented in this project? Yes No

F. SITE PHOTOS:

- A minimum of three ground photos per project site are required. Include in photo section.

G. MAPPING REQUIREMENTS:

Provide the following mapping elements in the map section:

- If project area has been mapped using GIS software, include the completed Shapefiles on CD-RW.
- Include a vicinity map of the general area showing major roads. Aerial photographs may be used as vicinity maps.
- Prominently mark the project location on the vicinity map.
- Provide a detailed project map that clearly identifies the project boundaries.
- Project map must show all lat/long coordinates provided in the project description.
- Vicinity map and the project map must both have a north arrow and scale.

***i* DO NOT SEND ROLLED MAPS – MAPS MUST BE FOLDED UNTIL 8.5" x 11" IN SIZE.**

H. PUBLIC ASSISTANCE (PA) PROGRAM FUNDING:

List any Public Assistance Disaster Survey Reports (DSR) or Project Worksheets (PWs) that were completed at the project location from previous disasters. List all current engagement with PA for this current disaster and include date(s) if known:

PA Engagement for DR4558CA include Debris Removal (Cat A) and Emergency Protective Services (Cat B) for approximately \$200,000

I. DEED RESTRICTIONS THAT LIMIT FEDERAL FUNDING:

Is there a deed restriction or permanent conservation easement on the property at the project site that would prohibit federal disaster funding (e.g., a previously FEMA funded acquisition of a structure on this property)? If yes, describe in detail.

No

13. PROJECT DESCRIPTION:

A. APPLICATION TYPE:

- Project 5% Activity

5% activities are defined as mitigation actions that are consistent with your local hazard mitigation plan and meet all HMGP requirements, but may be difficult to conduct a standard BCA to prove cost-effectiveness. Examples: early earthquake warning system, back-up generators for critical facilities, public awareness campaign, mitigation specific community outreach activities.

B. PROJECT TYPE:

Select at least one project type; select as many as needed to accurately describe project.

<input type="checkbox"/> EARTHQUAKE	<input checked="" type="checkbox"/> FIRE	<input type="checkbox"/> FLOOD	<input type="checkbox"/> OTHER
<input type="checkbox"/> CODE ENFORCEMENT	<input checked="" type="checkbox"/> DEFENSIBLE SPACE	<input type="checkbox"/> ACQUISITION	<input type="checkbox"/> CRITICAL FACILITY GENERATOR(S)

<input type="checkbox"/> NON-STRUCTURAL	<input checked="" type="checkbox"/> FIRE RESISTANT BUILDING MATERIALS	<input type="checkbox"/> DRY FLOOD PROOFING	<input type="checkbox"/> DROUGHT	<input type="checkbox"/> TSUNAMI
<input type="checkbox"/> STRUCTURAL	<input checked="" type="checkbox"/> FIRE VEGETATION MANAGEMENT	<input type="checkbox"/> FLOOD CONTROL	<input type="checkbox"/> WIND	
<input type="checkbox"/> NON-STRUCTURAL & STRUCTURAL	<input type="checkbox"/> SOIL STABILIZATION	<input type="checkbox"/> ELEVATION		
<input type="checkbox"/> CLIMATE RESILIENCY MITIGATION ACTION (CRMA): Projects that mitigate risk through restoration of the natural environment				

C. DESCRIBE PROBLEM/HAZARDS/RISKS:

Describe the problem this project is attempting to solve and the expected outcome. Describe the hazards and risks to life, safety and any improvements to property in the project area for at least the last 25 years. Describe in detail how the project reduces hazard effects and risks.

Problem: The three square mile community of Hidden Valley Lake is surrounded by dense forest, underbrush and grasslands. Thirteen acres within the community are owned by HVLCSD and also contain dense forest and brush. The Defensive Space and Ignition Resistance Construction (DSIRC) Project will reduce or potentially eliminate the risk of water service interruption resulting from the damaging effects of wildfire. Three hilltop parcels, and one easement at the water source will have the wildfire fuels surrounding critical infrastructure removed or thinned according to NFPA 1144 (See Section 3. Designs, "NFPA Suggestions.pdf"), and two of these locations will receive ignition resistant construction to further protect critical infrastructure (See Section 3. Designs, "California Building Code 2016 IRC Excerpts.pdf"). The redwood tank in the 4A parcel will be replaced with bolted steel construction, and appropriately sized. Two wells that are currently unprotected, will be covered with an ignition resistant structure (See Section 8. Cost Estimate, "Telstar Structure Quote.pdf").

Outcome: These project efforts will reduce wildfire conflagration, which will increase HVLCSD's resilience to this natural disaster. The protection of the safe and reliable delivery of drinking water to the community of Hidden Valley Lake is thereby ensured.

Hazards: Wildfire is a hazard to the health and safety of the public. The community of Hidden Valley Lake is surrounded by wildlands, and is considered a high fire threat area (See Section 14. Supporting Docs, "CPUC Fire Threat Map.pdf"). The specific hazards in the project area are dead and dying vegetation, ladder fuels under six feet, tree canopies that are within 18' from each other, the immediate ignition zone is not devoid of all vegetation, and some infrastructure itself is undersized and made of combustible material - redwood (See Section 3. Designs, "NFPA Suggestions.pdf").

Historical Improvements: The District made repairs to the infrastructure in the aftermath of the Valley Fire of 2015 (DR4240CA). A five-year rate increase was implemented from 2015 - 2020 to build up reserves to protect against and recover from natural disasters. Prior to 2015, the District made improvements to water storage by adding tanks of non-combustible material (2004) and updating the booster pump capabilities of the utility (1994).

Risk Reduction: Reducing wildfire fuels reduces the risk of immediate danger to life and health of the public, and helps to ensure the reliable delivery of drinking water to every resident of the community. Installing a right-sized water storage tank made of steel, is

also a method by which reliable delivery of drinking water is ensured. Enclosing the area in which the water is sourced, the wellheads, with ignition resistant structures is another means by which reliable delivery of drinking water is ensured.

During the late summer, early fall in Northern California, the area is particularly at risk for large, out of control wildfires due to a weather phenomenon called 'Diablo Winds' (See Section 4. Studies, "Excerpts - Fire Weather Research Laboratory.pdf"). Nestled within a rural area of the Mayacamas mountains, wildlands are abundant and the fuel that is burned during these extreme wind events can expand a wildfire exponentially. By reducing or eliminating the fuels that sustain the fire, and protecting critical infrastructure, potential infrastructure damage is reduced or eliminated, and the continuity of water service sustains the public, and fire-fighters (See Section 4. Studies, "CalForestFoundation-org.pdf").

D. DESCRIBE RECENT EVENTS THAT INFLUENCED THE SELECTION OF THIS PROJECT:

Describe recent events (e.g. changes in the watershed, discovery of a new hazard, zoning requirements, inter-agency agreements, etc.) that influenced the selection of this project.

In the last five years, Hidden Valley Lake Community has been subjected to seven major wildfire events. The Valley Fire of 2015 caused extensive damage to District infrastructure. This damage was repaired but not mitigated. In the years following this fire, rates were increased to build reserves for natural disasters. These reserves were depleted as a result of the following six disasters. The single jurisdictional Local Hazard Mitigation Plan was adopted in July of 2020, and a new rate structure was adopted in December 2020. The District is committed to mitigation actions in this climate of increased frequency and intensity of extreme weather events.

E. SCOPE OF WORK (SOW):

STATE EXACT SOW DOCUMENT TITLE:

HVLCSD Defensive Space and Ignition Resistant Construction (DSIRC) SOW

1. Describe the entire SOW of the project in clear, concise, ample detail.
2. Must provide a thorough description of **all tasks and activities** to be undertaken.
3. Must be written in sequential order from start to finish of the project.
4. Describe any land acquisition activities, and/or right-of-way or access easements that need to be obtained.
5. If structural, discuss how the structure/building/facility will be constructed or retrofitted.
6. Include building or structure dimensions, material types, depth and width of excavations, volume of materials excavated, type of equipment to be used, staging and parking areas, and any phasing of the project.
7. If any tunneling is proposed, describe the method and any temporary trenches or pits.
8. Describe any demolition activities that need to occur prior to construction or retrofitting.



INSERT THIS DOCUMENT IN THE SOW SECTION.

F. HAS YOUR JURISDICTION PREVIOUSLY RECEIVED HMGP FUNDING?

Yes No Unknown | If yes, provide disaster number(s): 4344 - Planning

G. HAS YOUR JURISDICTION RECEIVED ANY OTHER FUNDING?

Describe all other funding received for this project and all other recent projects. Identify the funding source (i.e., Federal, State, Private, etc.).

H. RELATED PROJECTS:

Describe any other projects or project components (whether or not funded by FEMA), which may be related to the proposed project, or are in (or near) the proposed project area. FEMA must look at all projects to determine a cumulative effect. FEMA reviews all interrelated projects under NEPA regulations.

I. HAZARD ANALYSIS TYPE:

Select the hazard(s) below that this project will protect against. Select as many as needed.

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> BIOLOGICAL | <input type="checkbox"/> EARTHQUAKE | <input type="checkbox"/> LAND SUBSISTENCE | <input type="checkbox"/> TERRORIST |
| <input type="checkbox"/> CHEMICAL | <input checked="" type="checkbox"/> FIRE | <input type="checkbox"/> MUD/LANDSLIDE | <input type="checkbox"/> TORNADO |
| <input type="checkbox"/> CIVIL UNREST | <input type="checkbox"/> FISHING LOSSES | <input type="checkbox"/> NUCLEAR | <input type="checkbox"/> TOXIC SUBSTANCES |
| <input type="checkbox"/> COASTAL STORM | <input type="checkbox"/> FLOOD | <input type="checkbox"/> SEA LEVEL RISE | <input type="checkbox"/> TSUNAMI |
| <input type="checkbox"/> CROP LOSSES | <input type="checkbox"/> FREEZE | <input type="checkbox"/> SEVERE ICE STORM | <input type="checkbox"/> WINDSTORM |
| <input type="checkbox"/> DAM/LEVEE BREAK | <input type="checkbox"/> HUMAN CAUSE | <input type="checkbox"/> SEVERE STORM(S) | |
| <input type="checkbox"/> DROUGHT | <input type="checkbox"/> HURRICANE | <input type="checkbox"/> SNOW | |

J. DESIGN PLANS:

If your project requires design plans, plans should be prepared to supplement the SOW and attached in the design section. If the project involves ground disturbance, (e.g. enlarging ditches or culverts, diversion ditches, detention basins, storm water improvements, etc.) include the following:

1. **Scale:** Plans should be drawn to scale (e.g. 1" to 100' or 1" to 200') depicting the entire land parcel, showing buildings, improvements, underground utilities, other physical features, dimensions and cross sections.
 2. **Identification:** Indicate agency name, land owner, civil engineer, soil engineer, geologist, map preparer, and date of map preparation. Also, indicate the name of the project.
 3. **Legend/Orientation:** Include a legend explaining all lines and symbols. Identify property acreage and indicate direction with a north arrow (pointing to top or right hand side of the plan).
 4. **Dimensions:** Show property lines and dimensions. Also, show boundary lines of project and their dimensions if only a portion of the property is being utilized for the project.
 5. **Structures:** Identify all existing and proposed buildings and structures including storm drains, driveways, sidewalks and paved areas.
 6. **Utilities:** Indicate names and location of utilities on property (water, sewage, gas, electric, telephone, cable).
 7. **Roads/Easements:** Indicate location, names, and centerline of streets and recorded roads. Identify any utility, drainage or right-of-way easements on the property.
 8. **Drainage:** Show the location, width and direction of flow of all drainage courses on site.
 9. **Grading/Topographic Information:** Show existing surface contours on-site and bordering the property.
 10. **Parking:** Show all construction parking and staging areas and provide dimensions.
 11. **Cross Sections:** Provide cross sections of proposed buildings, structures or other improvements, and any trenches, temporary pits or catchment basins.
- If applicable, provide studies and engineering documentation, including any Hydrology and Hydraulics (H&H) data.
- If applicable, provide drawings or blueprints that show the footprint and elevations.



DO NOT SEND PRINTED COPIES OF DESIGN PLANS, DRAWINGS OR BLUE PRINTS LARGER THAN 8.5' x 11" SIZE. DO NOT SEND ROLLED COPIES (FOLD TO OBTAIN 8.5" x 11" SIZE).

K. PROJECT ALTERNATIVES:

Identify three project alternatives:

1. ALTERNATIVE #1 – NO ACTION:

Describe the No Action alternative below. The No Action alternative evaluates the consequences of taking no action and leaving conditions as they currently exist.

The no action alternative is summarized by not protecting wellheads and water storage with non-combustible structures, and not removing or thinning wildfire fuel. Given the frequency of damaging wildfire in Lake County, the potential of this natural disaster happening again is highly likely. Damage frequency analyses will show this vulnerability to be true. Thus, the consequence of leaving conditions as they currently exist will continue to deplete District reserves in repairing damages instead of mitigating the vulnerability. The costs of an inoperable water distribution system poses a risk to human life.

2. ALTERNATIVE #2 – PROPOSED ACTION:

Describe the Proposed Action alternative below. The Proposed Action alternative is the proposed project to solve the problem. Explain why the proposed action is the preferred alternative. Identify how the preferred alternative will solve the problem, why the preferred alternative is the best solution for the community, why and how the alternative is environmentally preferred and why the project is the economically preferred alternative.

The proposed action alternative is to thin or remove vegetation surrounding water storage tanks, and to protect source water wellheads and water storage with non-combustible structures, which is supported by local fire officials (See Section 3. Designs, "Fire Marshall guidance.pdf"). This activity is also endorsed by the National Fire Prevention Association, (See Section 3. Designs, "NFPA Suggestions.pdf") under guideline 1144;
"6.1 ...[fuel] modifications shall extend to the limits of the structure ignition zone...6.2.1 Ground fuels, including native vegetation and plants used for landscaping...shall be treated or removed."
as well as the Public Resources Code #4291(See Section 3. Designs, "PRC_4291.pdf");
"A person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall at all times do all of the following:...Maintain defensible space of 100 feet from each side and from the front and rear of the structure..."

While the source water wellheads are located on a utility easement, this easement does not extend 100 feet in all directions, but defensible space will be maintained within the easement. The parcel on which Tank 4A is situated, does extend 100' and is therefore best protected with non-combustible structures, as well as the reduction of hazardous fuels.

As per the NFPA 1144 brochure (See Section 14. Supporting Docs, "NFPA - Brochure.pdf"), the ignition zone is divided into three sub-zones, defined by the distance of each sub-zone from the structure being protected. While the immediate zone should have no flammable materials within the first 5 feet of the structure, the next two zones, intermediate, and extended, promote a vegetative thinning plan. Defensible space that contains thinned vegetation protects local plants and wildlife

and retains existing habitat value that could be lost in an all-consuming fire. Water quality and watershed protection is ensured by reducing the potential for post-fire mudslides or burn scar run-off.

Once removal and thinning activities are completed, maintenance responsibilities would transition to in-house staff, creating a more independent utility, able to better sustain itself during natural disasters.

3. ALTERNATIVE #3 – SECOND ACTION ALTERNATIVE:

Describe the Second Action alternative below. The Second Action alternative described must also solve the described problem. State why this alternative wasn't chosen. It must be a viable project that could be substituted in the event the proposed action is not chosen.

The second action alternative would be to complete this mitigation activity over several years, as District reserves and Capital expenditure plans would allow. This alternative plan would place a higher risk to public safety and health, as well as risks of wildfire damage to water storage tanks. The increased frequency and intensity of extreme weather events has shown that the cost of waiting to execute mitigation activities, will likely be extremely higher. The time and materials needed to make emergency repairs has historically not left much behind for disaster preparation activities.

WORK SCHEDULE INFORMATION

14. PROJECT WORK SCHEDULE:

The intent of the work schedule is to provide a realistic appraisal of the time and components required to complete the project.

- Describe each of the major work elements and milestones in the description section below.
- Project subapplication examples are: construction, architectural, design, engineering, inspection, testing, permits, project management, mobilization and de-mobilization.
- State the total timeframe anticipated for each of the work elements.
- State the total timeframe anticipated to complete the project.
- Work schedule must mirror SOW, budget and BCA.OPTIONAL:
- Provide the work schedule in GANTT chart form as supplemental documentation in the work schedule section, Include this information as an example.

WORK SCHEDULE EXAMPLE		
#	DESCRIPTION	TIMEFRAME
1.	Kick-off, 90% design meetings	3 months
2.	Final contract drawing development	5 months
3.	Open bids and award contract	4 months
4.	Construction – Mobilization	5 months
5.	Construction – Demolition	4 months
6.	Construction – Concrete and conduit work	2 months
7.	Construction – Trenching	2 weeks
8.	Construction – Utility relocation	4 months
9.	Construction – Electrical Installation	1 month
10.	Construction – Site Restoration	1 week
11.	Construction – Complete punch list	2 months
12.	Construction – Demobilization	1 week
13.	Project Close-out and record drawings	2 months
14.	Grant Close out	3 months
TOTAL MONTHS:		36 months



TOTAL PROJECT DURATION (INCLUDING CLOSE-OUT) MUST NOT EXCEED A 36 MONTH PERIOD OF PERFORMANCE (POP).

#	DESCRIPTION	TIMEFRAME
1.	Pre-Award: Subapplication development	2 Months
2.	Phase 1 - Geotechnical, Environmental, Design	6 Months
3.	Phase 2 - Bid development, solicitation & award	3 Months
4.	Phase 2 - Mobilization	1 Month
5.	Phase 2 - Site prep, purchases	1 Month
6.	Phase 2 - Concurrent activities - Begin Defensive Space, Begin Off-hauling, Tank 4A Prep, Begin wellhead IRC	8 Months
7.	Phase 2 - Concurrent activities - Complete defensive Space, Complete wellhead IRC, New Tank 4A construction	8 Months
8.	Phase 2 - New Tank 4A testing & tie-in	2 Months
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.	Project Close-out	2 Months
19.	STANDARD VALUE (DO NOT CHANGE) Grant Close-out	3 months

TOTAL MONTHS:

36

If more lines are needed than provided, indicate the title of document in box 1 and attach a separate work schedule in the schedule section.

COST ESTIMATE INFORMATION

15. HMGP COST ESTIMATE SPREADSHEET:

A. COST ESTIMATE INSTRUCTIONS:

Using the [HMGP Cost Estimate Spreadsheet](#), provide a detailed cost estimate breakdown.

- Cost estimate describes the anticipated costs associated with the SOW for the proposed mitigation activity. Cost estimates must include detailed estimates of cost item categories.
- Only include costs that are directly related to performing the mitigation activity. If additional work, such as remodeling, additions, or improvements are being done concurrently with the mitigation work, do not include these costs in the submitted budget.
- Documentation that supports the budget must be included to the subapplication in the budget section.
- Total costs must be consistent with the requested federal share plus the matching funds and must be consistent with the project cost in the Benefit Cost Analysis (BCA), SOW and work schedule.

#	ITEM NAME	Unit Qty	UNIT	UNIT COST	COST EST TOTAL
1.	Pre-Award Costs: Develop BCA	4	HR	\$150	\$600
2.	Temp. Inlet Filter Rolls	4	EA	\$250	\$1000
3.	Temp. Fiber Roll	1850	LF	\$3	\$5550
4.	Hydraulic Mulch	1000	SQYD	\$2	\$2000
5.	Plane Asphalt Concrete Pavement	650	SQYD	\$22	\$14300
6.	Street Sweeping for 30 days	30	EA	\$350	\$10500
7.	Roadway Excavation	70	CY	\$40	\$2800
8.	Aggregate Base, Class 2	210	CY	\$75	\$15750
9.	Remove Concrete Pavement	650	SQYD	\$340	\$10540
10.	Asphalt Concrete, Type B	180	TON	\$150	\$27000
11.	Asphalt Concrete, Leveling	10	TON	\$300	\$3000
12.	Asphalt Concrete Dike, Type A	235	LF	\$15	\$3525
13.	Asphalt Concrete Dike, Type F	125	LF	\$8	\$120
14.	Place Asphalt Concrete	15	SQFT	\$8	\$120
15.	18" Corrugated Steel Pipe Riser	5	LF	\$125	\$625
16.	24" Reinforced Concrete Pipe	275	LF	\$170	\$46750
17.	84" Reinforced Concrete Pipe Install	572	LF	\$400	\$228800
18.	Precast Triple Concrete Box Culvert	44	LF	\$1500	\$66000
19.	Curb Inlet - Type B-1 (L=9')	1	EA	\$6000	\$6000
20.	Curb Inlet - Type B-1 (L=13')	1	EA	\$6300	\$6300
21.	Curb Inlet - Type B-1 (L=15')	1	EA	\$6800	\$6800
22.	Storm Drain Cleanout - Type A-8	3	EA	\$7500	\$22500
23.	8" PVC Sewer	89	LF	\$100	\$8900
24.	Cellular Block (Precast)	4100	SQFT	\$20	\$82000
25.	Project Identification Sign	2	EA	\$1000	\$2000
Total Project Cost Estimate:					\$573480

B. INELIGIBLE COSTS:

The following are ineligible line items:

- Lump Sums
- Contingency Costs
- Miscellaneous Costs
- "Other" Costs
- Cents (must use whole dollar amounts, round unit prices up to whole dollars)

C. PRE-AWARD COSTS:

Eligible pre-award costs are costs incurred after the disaster date of declaration, but prior to grant award. Pre-award costs directly related to developing the application may be funded.

- Developing a BCA
- Preparing design specifications
- Submission of subapplication
- Gathering environmental and historic data
- Workshops or meetings related to development



Subapplicants who are not awarded funds will not receive reimbursement for pre-award costs.

D. COST ESTIMATE NARRATIVE:

FEMA requires a cost estimate narrative that explains all projected expenditures in detail. The cost-estimate narrative is intended to mirror the cost estimate spreadsheet and should include a full detailed narrative to support the cost estimates listed in the HMGP Project Cost Estimate Spreadsheet. If your cost estimate includes City, County, or State employees' time (your agency), include personnel titles and salary/hourly wages plus benefits for a total hourly cost. Detailed timesheets must be retained.

Title the document "Cost Estimate Narrative" and include in the budget section.

16. FEDERAL/NON-FEDERAL SHARE INFORMATION:

A. FUNDING RESTRICTIONS:

There is no restriction or cap on the federal share that may be requested for each project subapplication. FEMA will contribute no more than 75 percent of the total project cost. A minimum of 25 percent of the total eligible costs must be provided from a non-federal source. State does not contribute to local cost share.

For example: for a \$10,000,000 total project cost, the federal requested share (75 percent) would be \$7,500,000. The non-federal match share (25 percent) provided would be \$2,500,000.

*The sum of the federal and non-federal shares must equal the total project cost.

*The federal share **MUST NOT** exceed 75 percent.

B. TOTAL PROJECT COST ESTIMATE:

\$1,403,617

Enter total cost formulated on the [HMGP Cost Estimate Spreadsheet](#)

ENTER \$ IN BOX ABOVE



VERIFY ALL AMOUNTS ENTERED ARE ACCURATE.

INCORRECT AMOUNTS WILL DELAY PROCESSING OF YOUR SUBAPPLICATION.

FEDERAL SHARE (75% MAXIMUM)	REQUESTED AMOUNT:	\$1,052,713
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	75%
		ENTER % IN BOX ABOVE
NON-FEDERAL SHARE (25% MINIMUM)	REQUESTED AMOUNT:	\$350,904
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	25%
		ENTER % IN BOX ABOVE

C. NON-FEDERAL MATCH SOURCE: MATCH COMMITMENT LETTER:

Use the Local Match Commitment Letter Template to complete this section and add completed letter to the match section.

- A signed Match Commitment Letter must be provided on agency letterhead.
- The non-federal source of matching funds must be identified by name and type.
- If "other" is selected for funding type, provide a description.
- Provide the date of availability for all matching funds.
- Provide the date of the Funding Match Commitment Letter.
- The funds must be available at the time of submission unless prior approval has been received from Cal OES.
- If there is more than one non-federal funding source, provide the same information for each source on an attached document.
- Match funds must be in support of cost items listed in the cost estimate spreadsheet.
- Requirements for donated contributions can be found in 2 CFR 200.306.

BENEFIT/COST EFFECTIVENESS INFORMATION

17. BENEFIT/COST EFFECTIVENESS INFORMATION

A. BCA INSTRUCTIONS:

FEMA will only consider subapplications from subapplicants that use a FEMA-approved methodology to conduct the Benefit Cost Analysis (BCA). BCA must be legible, complete and well-documented.

- Project BCAs must demonstrate cost-effectiveness through a Benefit Cost Ratio (BCR) of 1.0 or greater.
- Projects with a BCR of less than 1.0 will not be considered for funding.
- Total project cost must be used in the BCA.
- Maintenance of a completed HMGP project is not an eligible reimbursement activity, but must be included in the BCA.

BCA Version 6.0 is the only software that is allowed to conduct a BCA. Some project types may qualify for pre-calculated benefits. Additional information on the BCA Toolkit is available at: <https://www.fema.gov/benefit-cost-analysis>.

i The FEMA BCA Technical Assistance Helpline is available to provide assistance with FEMA’s BCA software by calling 1-855-540-6744 or via email at BCHelpLine@FEMA.dhs.gov. The FEMA helpline is only to be utilized for technical assistance questions. The FEMA helpline will not verify the accuracy of your BCA.

B. BCA INFORMATION:

Once the BCA is completed, enter information requested below.

1. NET PRESENT VALUE OF PROJECT BENEFITS:	<input type="text" value="\$2,291,304"/>
2. TOTAL PROJECT COST ESTIMATE:	<input type="text" value="\$1,586,276"/>
3. BENEFIT COST RATIO:	<input type="text" value="1.44"/>

C. ANALYSIS TYPE:

- | | | | |
|--|--|---|-------------------------------------|
| <input type="checkbox"/> FLOOD | <input checked="" type="checkbox"/> WILDFIRE | <input type="checkbox"/> EXEMPT (5% PROJECTS) | <input type="checkbox"/> EARTHQUAKE |
| <input type="checkbox"/> HURRICANE WIND | <input type="checkbox"/> DROUGHT | <input type="checkbox"/> PRE-CALCULATED | <input type="checkbox"/> LANDSLIDE |
| <input type="checkbox"/> DAMAGE FREQUENCY ASSESSMENT (DFA) | | | |

D. ANALYSIS DATE (date BCA was conducted):

E. PROVIDE BCA HARD AND SOFT COPIES IN FORMAT DESCRIBED BELOW:

- Copy the exported BCA in a .zip file format and add to the CD-RW.
- Provide a hard copy of the report in the BCA section.

MAINTENANCE ASSURANCE INFORMATION

18. PROJECT MAINTENANCE INFORMATION:

A. MAINTENANCE ASSURANCE LETTER:

- Using the [Project Maintenance Letter Template](#), identify all maintenance activities required to preserve the long-term mitigation effectiveness of the project.
- Examples of maintenance include: inspection of the project, cleaning and grubbing, trash removal, replacement of worn out parts, etc.
 - Attach a maintenance schedule, estimated annual costs, and a signed maintenance commitment letter for the useful life of the project.

NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

19. NFIP INFORMATION:

i CONTACT YOUR COUNTY OR LOCAL FLOODPLAIN ADMINISTRATOR FOR NFIP INFORMATION.

A. NFIP PARTICIPATION:

1. Is the jurisdiction where the project is located participating in the NFIP? YES NO
- a. If yes, are they in good standing? YES NO
- b. If no, explain:

B. PROJECT LOCATION:

1. Is this project located in a floodplain or floodway designated on a FEMA Flood Insurance Rate Map (FIRM)? YES NO
- a. Mark the project location on the FIRM and attach to subapplication in the maps section.
2. Provide the following information for the location of the project:
- a. FIRM panel number:
- b. FIRM zone designations:
- c. NFIP community ID number:

- c. LAST [COMMUNITY ASSISTANCE VISIT \(CAV\)](#) DATE:

ENVIRONMENTAL INFORMATION

20. ENVIRONMENTAL INFORMATION:

A. FEMA ENVIRONMENTAL CHECKLIST:

- Complete the [FEMA Site Information, Environmental Review, and Checklist](#) and attach to the environmental section. Provide a detailed response to each question. Attach supporting documentation in compliance with [FEMA's frontloading requirements](#).

PRINT THIS PAGE – ORIGINAL SIGNATURE IS REQUIRED

PROJECT CONDITIONS

Indicate by checking each box below that you will adhere to these listed project conditions.

- If during implementation of the project, ground-disturbing activities occur and artifacts or human remains are uncovered, all work will cease and FEMA, Cal OES, and the State Historic Preservation Officer (SHPO) will be notified.
- If deviations from the approved scope of work result in design changes, the need for additional ground disturbance, additional removal of vegetation, or will result in any other unanticipated changes to the physical environment, FEMA will be contacted and a re-evaluation under NEPA and other applicable environmental laws will be conducted.
- If wetlands or waters of the U.S. are encountered during implementation of the project, not previously identified during project review, all work will cease and FEMA will be notified.
- Due to the Federally mandated Environmental and Historic Preservation (EHP) review; no construction will occur for this project prior to FEMA and Cal OES approval.

AUTHORIZATION

The undersigned does hereby submit this subapplication for financial assistance in accordance with the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) and the State Hazard Mitigation Administrative Plan and certifies that the subapplicant (e.g., organization, city, or county) will fulfill all requirements of the program as contained in the program guidelines and that all information contained herein is true and correct to the best of our knowledge.

Subapplicant Authorized Agent:

NAME: Alyssa Gordon

TITLE: Project Manager

ORGANIZATION: Hidden Valley Lake Community Services District

SIGNATURE: 

DATE: 3/2/21



Introduction

Hidden Valley Lake Community Services District has placed a priority on planning and mitigation from natural disaster. In 2020 HVLCSD completed two major strides towards sustainability and resilience. In July a Local Hazard Mitigation Plan was adopted and approved that contained twenty-three different mitigation projects, and in December a new rate structure was adopted to help these projects move forward. Mitigation action plans 4 & 21 of the LHMP are the two specific plans that are represented in this project 4558-398 Defensive Space and Ignition Resistant Construction (DSIRC).

The DSIRC project is specifically designed to reduce both HVLCSD and the community's vulnerability from the damaging effects of wildfire by thinning vegetation according to the guidelines of NFPA 1144.

The approach to achieving this high level of protection will be phased. Phase 1 will focus on the development of environmental compliance, geotechnical review, and design specifications and plans. Phase 2 is essentially the physical enactment of Phase I planning, where defensive space principles will be applied to lands surrounding critical infrastructure, and ignition resistant construction will be applied to key infrastructure.

Each task identified in this Scope of Work has a corresponding task in the Cost Estimate Narrative (Spreadsheet) and DSIRC – Gantt project planner (Work Schedule).

Pre-Award

(Cost Estimate Narrative #1, DSIRC – Gantt project planner #1)

HVLCSD is a small municipality with high wildfire risk. The Notice of Intent, and the DSIRC Subapplication was developed and submitted using internal resources. HVLCSD's project manager has attended HMGP and BCA training, and participated in periodic reviews with CalOES HMA support and FEMA consultants. Previous Hazard Mitigation Grant Program Subapplications have been leveraged to aid in the development of this Subapplication. Costing and scheduling estimates are based on the experience of HVLCSD's engineering firm, Coastland Civil Engineering.

Phase 1

The studies developed in this phase are anticipated to provide a technical body of information that will indicate this project meets HMGP requirements. The three areas of study will be Environmental, Geotechnical, and Design Specifications & Plans.

Environmental Compliance (Cost Estimate Narrative #2, Gantt project planner #2)



– Previous studies have been conducted in the Hidden Valley Lake community which have provided a basis for scheduling and costing for this effort. Additionally, the insight provided by this earlier activity will help provide information on overlapping areas of study with the current project scope. (See Section 12. Environmental, “4382-112 WRA Environmental Study.pdf”, “4407-57 EPPI Environmental Study.pdf”). HVLCSD will engage the services of an environmental firm experienced in the Environmental and Historic Preservation analysis required for this Subapplication.

Geotechnical Investigation (Cost Estimate Narrative #3, Gantt project planner #3)

– A geotechnical study and report will help plan for the Ignition Resistance Construction portion of the project. Water storage tank #4A will require geotechnical investigation to assist in foundation and concrete design. HVLCSD will engage the services of a geotechnical firm to help in the development of the Design Specification & Plans. Geotechnical field testing is also required during construction. Previous studies have offered guidance as to tasks, costs, and scheduling (See Section 8. Cost Estimate, “4407-57 Geotech quote.pdf”, “4382-112” Geotech quote.pdf”).

Design Specifications & Plans (Cost Estimate Narrative #4, Gantt project planner #4)

– Aided by the results of the geotechnical study and report, project designs and plans will be the final task in this first phase of the DSIRC project. In previous Subapplication efforts, Coastland Civil Engineers have built these designs and plans for HVLCSD. (See Section 3. Designs, “4382-112 Design Plans.pdf”, “4407-57 Design Plans.pdf”). Coastland Civil Engineers have been the District engineers since 2014 (See Section 14. Supporting Docs, “Resolution 2014-11.pdf”).

Phase 2

Provided the results of the Phase 1 studies reveal project eligibility, technical feasibility, cost effectiveness, and compliance with EHP requirements, phase 2 tasks will begin.

Bid development, solicitation & award (Cost Estimate Narrative #5, Gantt project planner #5)

– A civil engineering firm will prepare bid documents, including plans and specifications for the proposed project. The plan set will include:

- A defensive space plan for each project area that includes on-going maintenance. This plan will detail clearing, pruning and tree canopy spacing requirements to maintain defensive space according to NFPA 1144, up to 100’ as space allows around critical infrastructure.
- An ignition resistant structure plan for Well 2 and Well 4 that adheres to California Building Code 2016, Chapter 7 (See Section 3. Designs, “California Building Code 2016 Excerpts.pdf”)



- A tank demolition plan that specifies all items (tank, vegetation, piping and appurtenances) to be removed.
- A tank installation plan that specified all items (piping, foundation, tank) to be installed.
- Electrical plans showing tank controls and telemetry
- Additional sheets showing structural details of foundation, section, piping and appurtenances.

The engineering firm will also prepare written instructions for the work or specifications that, together with the plan set, comprise bid documents that are suitable for public bid. The engineers will provide a 60%, 95% and Final submittal. Each submittal will incorporate the District's previous review comments.

The project will be advertised and put out to public bid. Public bid opening and analysis will be conducted according to bid requirements documentation. An award to the lowest bidder will be determined by HVLCSD Board of Directors. Requests for information and any necessary addenda will be prepared as needed.

Mobilization (Cost Estimate Narrative #6, Gantt project planner #6)

– This includes obtaining permits (if necessary), installing environmental protections, moving equipment and materials to the site, hiring subcontractors, ordering materials, preparing submittals and conducting project administration. It also includes the work to demobilize from the sites and the closing of the project and grant.

Site preparation, Purchases (Cost Estimate Narrative #7, Gantt project planner #7)

- Project kick-off meeting, final field visits, and final agreements with civil engineers, contractors, and project managers on plans and schedules take place during this stage. Mobilized equipment will be moved from staging area to project activity areas.
- Base rock, pea gravel, and steel water storage tank will be ordered at this point in the project. The lead time for delivery of the tank has been incorporated into the duration of this task in the DSIRC Gantt project planner (6 months).

Defensive Space

Immediate Ignition Zone, Cut & Fill (Cost Estimate Narrative #8, Gantt project planner #8)

– This is the process of applying defensive space for the Immediate Ignition Zone (0 – 5') at all four project areas (See Section 14. Supporting Docs, "NFPA – brochure.pdf").

"...the area 0-5' from the furthest attached exterior point...; defined as a non-combustible area."
"move any flammable material away from wall exteriors...-anything that can burn."

Based on preliminary site assessment, minimal grading (150CY), .65 acres of clearing and grubbing, and .65 acres of tree removal (10 trees) are expected to be complete at this step in



the project. The bid solicitation will include defensive space principles within the technical specifications section. Contractors, as per their bid proposal, will be apprised and prepared to conduct these tasks.

Off-hauling (Cost Estimate Narrative #9, Gantt project planner #9)

– Within a month of the Immediate Ignition Zone work, off-hauling is scheduled to begin at the four project sites. HVLCSD’s debris storage site is located adjacent to the reclamation pond at the Wastewater Treatment Plant. HVLCSD Field Operators will be available to assist with time and trucks to off-haul vegetative debris to the debris storage site. Costs (\$80/hr) reflect this shared activity between contractor and in-house staff. Scheduling (11 months) reflects the incorporation of off-hauling activities for all three ignition zones (Immediate, Intermediate, and Extended) within project sites and their timelines.

Intermediate & Extended Ignition zone (Cost Estimate Narrative #10, Gantt project planner #10)

– This is the process of applying defensive space principles to zones that extend 5’ – 30’ from critical infrastructure, and 30’ – 100’ from critical infrastructure at all four project sites when practical (See Section 14. Support Docs. “NFPA – Brochure.pdf”). The bid solicitation documentation will include defensive space principles within the technical specifications section. Contractors, as per their bid proposal, will be apprised and prepared to conduct these tasks.

- Intermediate Zone: “Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to six to ten feet from the ground; for shorter trees do not exceed 1/3 of the overall tree height. Space trees to have a minimum of eighteen feet between crowns...Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.”
- Extended Zone: “Remove dead plant and tree material. Remove small conifers growing between mature trees. Trees 30-60’ from [structure] should have at least 12’ between canopy tops. Trees 60-100’ from [structure] should have at least 6’ between canopy tops.”

Since 95% of a 100’ perimeter is 12.35 acres in this project (13 acres total) the above-mentioned principles will be applied to the remaining 12.35 acres of this project. Based on preliminary site assessment, clearing and grubbing activities are reduced in these zones, by 75%. Tree removal is increased to 20 trees per acre. The bid solicitation will include defensive space principles within the technical specifications section. Contractors, as per their bid proposal, will be apprised and prepared to conduct these tasks.



Ignition Resistant Construction

Tank 4A

Piping to Tank 4A, 4B isolation (Cost Estimate Narrative #11, Gantt project planner #11)

– Once defensive space principles have been applied to the water storage area known as tank 4, work can begin on the Ignition Resistance Construction portion of the project. Current flow to 4A will be closed, thus isolating Tank 4B as the sole water source for this pressure zone. Pressure reducing valves will be adjusted to accommodate the water demand during the construction process. Water main piping will be extended from the tank to the junction at the street. The depths of main will stay at 40" below grade and will match existing materials of C900 PVC pipe. Exposed water main will be ductile iron. No connections will be made at this time. The Ignition Resistance Construction portion of the project is discrete and distinct from the Defensive Space portion of the project, and therefore many tasks will overlap.

Demolish existing Tank 4A (Cost Estimate Narrative #12, Gantt project planner #12)

– While Defensive Space activities and Ignition Resistant Construction activities may overlap, tank preparation, demolition, and construction must be, by nature, sequential. After Tank 4A has been removed from service, the redwood tank and foundation will be demolished using an excavator and will be removed from the site in 10-wheeler dump trucks. During this time, work will continue on the Defensive Space portion of the project.

New Tank 4A Foundation (Cost Estimate Narrative #13, Gantt project planner #13)

– Once the old Tank 4A has been demolished and removed, a new reinforced concrete ring foundation will be poured and tested for new Tank 4A according to designs developed from Phase 1. During this time, work will continue on the Defensive Space portion of the project.

Tank 4A Construction (Cost Estimate Narrative #14, Gantt project planner #14)

– Once the new Tank4A foundation has been poured and successfully tested, the new Tank 4A will be assembled from pre-coated steel panels onsite. After assembly, the tank coating will be spot-repaired as necessary. Appurtenances will be added such as caged ladders, manways, drains with vortex breaker, vents, and overflow pipes. The tank will be tested for leaks. During this time, work will be finishing up on the Defensive Space portion of the project and is estimated to be complete prior to the completion of tank construction.

New Tank Testing & Tie-In (Cost Estimate Narrative #16, Gantt project planner #16)

– Once the new Tank 4A has been constructed, and successfully tested for leaks, water main tie-in will begin. The tank and water piping will be disinfected prior to making the connection to the existing water main piping. After the tie-in, Tank 4A will be in service, and all pressure reducing valves will be adjusted accordingly.



Wellhead Protection

Wellhead Structure Construction (Cost Estimate Narrative #15, Gantt project planner #15)

– As previously mentioned, several tasks of this project may overlap, particularly the separate and distinct tasks of Defensive Space and Ignition Resistant Construction. In the case of Wellhead Structure Construction, the only prerequisite to construction is the development of Defensive Space on this municipal easement. The tasks listed here are independent of the Tank 4A construction project, and is listed as occurring concurrently with Tank4A preparation, demolition, and construction. The construction tasks for wellhead protection do not require piping, demolition, or tie-in. This structure will be built around existing wellhead infrastructure.

- Well 2 - A metal frame building of the dimensions 6' x 20' with Hardie board siding will be installed at the well site. A metal gable roof with a removable hatch will be installed. The technical specifications will be included in the bid solicitation package, and therefore the Contractor will be apprised and prepared to conduct these tasks.
- Well 4 - A metal frame building of the dimensions 12' x 18' with Hardie board siding will be installed at the well site. A metal gable roof with a removable hatch will be installed. The technical specifications will be included in the bid solicitation package, and therefore the Contractor will be apprised and prepared to conduct these tasks.

Demobilization (Cost Estimate Narrative #6, Gantt project planner #6)

– While included in the mobilization section of the Cost Estimate Narrative and Gantt project planner, actual demobilization activities will occur at the completion of the project. This involves final inspection, completion of the final punch-list tasks, and the removal of equipment and supplies from the site.

Project close-out and record drawings (Cost Estimate Narrative #6, Gantt project planner #17)

– While included in the mobilization section of the Cost Estimate Narrative, this task involves completion of project paperwork and records, as well as preparing as-built drawings.

Grant close-out (Gantt project planner #18) – This involves completing the paperwork and inspections required to complete the project to the satisfaction of FEMA and CalOES. These costs are tracked separately as Grant Management Costs.

Project Management and Construction Management (Gantt project planner #19,20)

– This iterative processes of HVLCSD project management and outsourced construction management are noted here but have continued throughout the progression of the project.

What are the primary threats to homes during a wildfire?

Research around home destruction vs. home survival in wildfires point to embers and small flames as the main way that the majority of homes ignite in wildfires. Embers are burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind can cause spot fires and ignite homes, debris and other objects.

There are methods to prepare their homes to withstand ember attacks and minimize the likelihood of flames or surface fire touching the home or any attachments. Experiments, models and post-fire studies have shown homes ignite due to the condition of the home and everything around it, up to 200' from the foundation. This is called the Home Ignition Zone (HIZ).

What is the Home Ignition Zone?

The concept of the home ignition zone was developed by retired USDA Forest Service fire scientist Jack Cohen in the late 1990s, following some breakthrough experimental research into how homes ignite due to the effects of radiant heat. The HIZ is divided into three zones.

Immediate zone

The home and the area 0-5' from the furthest attached exterior point of the home; defined as a non-combustible area. Science tells us this is the most important zone to take immediate action on as it is the most vulnerable to embers. Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers.

- Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. Remove anything stored underneath decks or porches.

Intermediate zone

5-30' from the furthest exterior point. Landscaping/hardscaping- employing careful landscaping or creating breaks that can help influence and decrease fire behavior

- Create fuel breaks with driveways, walkways/paths, patios, and decks.
- Keep lawns and native grasses mowed to a height of four inches.
- Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to **six to ten feet from the ground**; for shorter trees do not exceed 1/3 of the overall tree height.
- Space trees to have a minimum of **eighteen feet between crowns** with the distance increasing with the percentage of slope.
- Tree placement should be planned to ensure the mature canopy is no closer than **ten feet to the edge of the structure**.
- Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.

Extended zone

30-100 feet, out to 200 feet. Landscaping – the goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground.

- Dispose of heavy accumulations of ground litter/debris.
- Remove dead plant and tree material.
- Remove small conifers growing between mature trees.
- Remove vegetation adjacent to storage sheds or other outbuildings within this area.
- Trees 30 to 60 feet from the home should have at least 12 feet between canopy tops.*
- Trees 60 to 100 feet from the home should have at least 6 feet between the canopy tops.*

**The distances listed for crown spacing are suggested based on NFPA 1144. However, the crown spacing needed to reduce/prevent crown fire potential could be significantly greater due to slope, the species of trees involved and other site specific conditions. Check with your local forestry professional to get advice on what is appropriate for your property.*

Chapter 6 Fuel Modification Area

6.1* General. Where the wildland fire mitigation plan requires establishment of a fuel modification area, the modifications shall extend to the limits of the structure ignition zone.

6.2 Fuels Modification and Treatment.

6.2.1* Ground fuels, including native vegetation and plants used for landscaping within the defined landscaping zones, shall be treated or removed.

6.2.2 Live vegetation within the fuel modification area shall have dead material removed and shall be thinned and pruned in conformance with the wildland fire mitigation plan, as approved by the AHJ.

6.2.3 Dead and downed fuels within 30 ft (9 m) of all buildings shall be removed or treated to maintain the fuel modification area in conformance with the wildland fire mitigation plan, as approved by the AHJ.

6.2.4 Vegetation under trees within the fuel modification area shall be maintained at a height that will preclude ground fire from spreading in the tree crown.

6.2.5* Tree crowns within the structure ignition zone shall be spaced to prevent structure ignition from radiant heat.

6.2.6 The fuel modification plan shall include a maintenance element identifying and defining the responsibility for continued and periodic maintenance.

CALIFORNIA BUILDING CODE 2016
CHAPTER 7A Materials & Construction Methods for Exterior Wildfire Exposure
SECTION 704A Ignition Resistant Construction

704A.3 Conditions of Acceptance for Ignition-Resistant Material Tested in Accordance With ASTM E84 or UL 723

A material shall comply with the conditions of acceptance in Items 1 and 2 below when the test is continued for an additional 20-minute period, meaning for a total test period of an "extended" 30-minute test period.

1. The material shall exhibit a flame spread index not exceeding 25 and shall show no evidence of progressive combustion following the extended 30-minute test period.
2. The material shall exhibit a flame front that does not progress more than 10¹/₂ feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test period.

704A.4 Alternative Methods for Determining Ignition-Resistant Material

Any one of the following shall be accepted as meeting the definition of [ignition-resistant material](#):

1. [Noncombustible](#) material. Material that complies with the definition for [noncombustible](#) materials in [Section 202](#).
2. Fire-retardant-[treated wood](#). Fire-retardant-[treated wood](#) identified for exterior use that complies with the requirements of [Section 2303.2](#).
3. Fire-retardant-[treated wood](#) shingles and shakes. Fire-retardant-[treated wood](#) shingles and shakes, as defined in [Section 1505.6](#) and listed by State Fire Marshal for use as "Class B" [roof covering](#), shall be accepted as an ignition-resistant [wall](#) covering material when installed over [solid](#) sheathing.

DEFENSIBLE SPACE DESIGN #1

Jennifer Melman

From: Alyssa Gordon <agordon@hvlcsd.org>
Sent: Monday, February 25, 2019 9:59 AM
To: Jennifer Melman
Subject: FW: Water Tank - Defensible Space

Jenny,

Here is the work from our local Battalion Chief regarding defensible space for the Unit 9 Tank(s).

Also, we are still awaiting consensus on the exact date for the Special Meeting, probably either 3/4 or 3/5 .

From: Wink, Mike@CALFIRE [mailto:Mike.Wink@fire.ca.gov]
Sent: Sunday, February 24, 2019 6:13 PM
To: agordon@hvlcsd.org
Cc: Kirk Cloyd <kclloyd@hvlcsd.org>
Subject: Water Tank - Defensible Space

Good afternoon Alyssa. I attached some pic and info below. In general terms, if you own 100 feet from the water tank to your property boundary, you should reduce the fuels for the full 100 feet. If not, you should reduce the fuels to the edge of your property. There are some good examples in the links below. Also, the access road should also have a minimum of 14 feet of vertical clearance and be cleared 10 feet from each edge of the road per the California Fire Code. Thanks, Mike

<http://www.readyforwildfire.org/Defensible-Space/>

Defensible Space - Ready For Wildfire

www.readyforwildfire.org

USE THE CAL FIRE APP TO GET STARTED Keep your property lean and green to help protect your family and home. Creating defensible space is essential to improve your home's chance of surviving a wildfire.

<http://ucanr.edu/sites/SAFElandscapes/files/79420display.jpg>





https://www.researchgate.net/profile/Domingo_Molina_Terren/publication/327602485/figure/fig5/AS:670062046363648@1536766649414/Firewise-planning-model-of-defensible-space-around-a-house-Firewise-planning-entails.png



Mike Wink

**Battalion Chief
Middletown Battalion**

CAL FIRE

**Sonoma - Lake - Napa Unit
21095 Hwy 175 - P.O.Box 1360**

Middletown, Ca. 95461

Office: 707.987-3089 ext 3

Cell: 707.889.4225

Fax: 707.987.9478

Emial Mike.Wink@fire.ca.gov

State of California

PUBLIC RESOURCES CODE

Section 4291

4291. (a) A person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall at all times do all of the following:

(1) Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in paragraph (2). The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.

(2) A greater distance than that required under paragraph (1) may be required by state law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the state law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.

(3) An insurance company that insures an occupied dwelling or occupied structure may require a greater distance than that required under paragraph (1) if a fire expert, designated by the director, provides findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure. The greater distance may not be beyond the property line unless allowed by state law, local ordinance, rule, or regulation.

(4) Remove that portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe.

(5) Maintain a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood.

(6) Maintain the roof of a structure free of leaves, needles, or other vegetative materials.

(7) Prior to constructing a new building or structure or rebuilding a building or structure damaged by a fire in an area subject to this section, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code, and shall provide a copy of the certification, upon request, to the insurer providing course of construction insurance coverage for the building or structure. Upon completion of the construction or rebuilding, the owner shall obtain from the local building official, a copy of the final inspection report that demonstrates that the dwelling or structure was constructed in compliance with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code, and shall provide a copy of the report, upon request, to the property insurance carrier that insures the dwelling or structure.

(b) A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the consent of the owner of the property.

(c) (1) Except as provided in Section 18930 of the Health and Safety Code, the director may adopt regulations exempting a structure with an exterior constructed entirely of nonflammable materials, or, conditioned upon the contents and composition of the structure, the director may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding those structures.

(2) An exemption or variance under paragraph (1) shall not apply unless and until the occupant of the structure, or if there is not an occupant, the owner of the structure, files with the department, in a form as the director shall prescribe, a written consent to the inspection of the interior and contents of the structure to ascertain whether this section and the regulations adopted under this section are complied with at all times.

(d) The director may authorize the removal of vegetation that is not consistent with the standards of this section. The director may prescribe a procedure for the removal of that vegetation and make the expense a lien upon the building, structure, or grounds, in the same manner that is applicable to a legislative body under Section 51186 of the Government Code.

(e) The department shall develop, periodically update, and post on its Internet Web site a guidance document on fuels management pursuant to this chapter. Guidance shall include, but not be limited to, regionally appropriate vegetation management suggestions that preserve and restore native species that are fire resistant or drought tolerant, or both, minimize erosion, minimize water consumption, and permit trees near homes for shade, aesthetics, and habitat; and suggestions to minimize or eliminate the risk of flammability of nonvegetative sources of combustion such as woodpiles, propane tanks, decks, and outdoor lawn furniture.

(f) As used in this section, "person" means a private individual, organization, partnership, limited liability company, or corporation.

(Amended by Stats. 2018, Ch. 641, Sec. 7. (AB 2911) Effective January 1, 2019.)

ORIGINAL PLOT DATE: 09/15/18

PRELIMINARY PLANS FOR :

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT WATER SYSTEM STORAGE RELIABILITY PROJECT

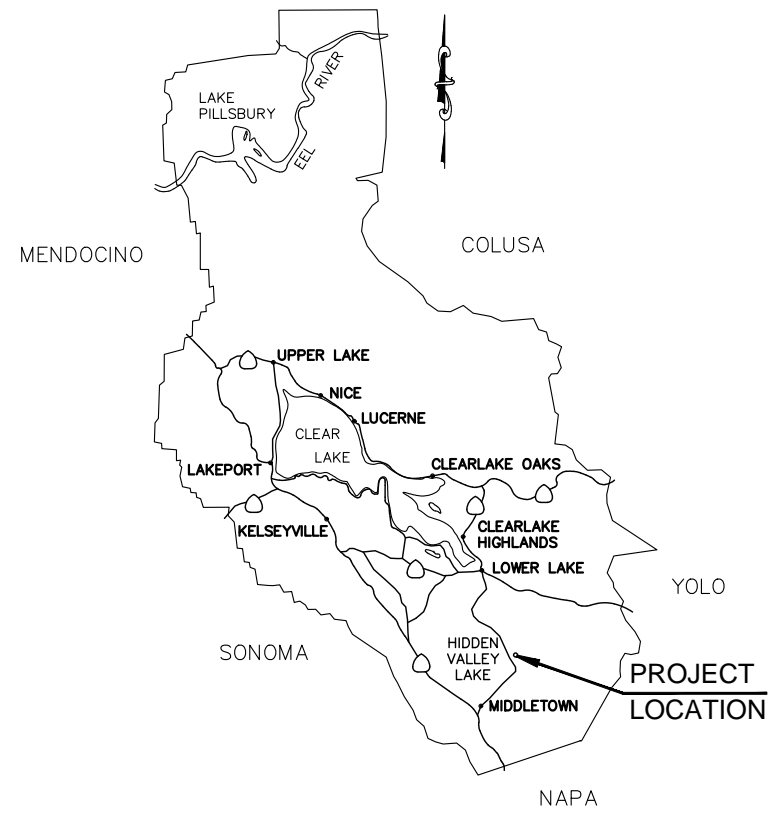
APRIL 2019

HIDDEN VALLEY LAKE
LAKE COUNTY, CALIFORNIA

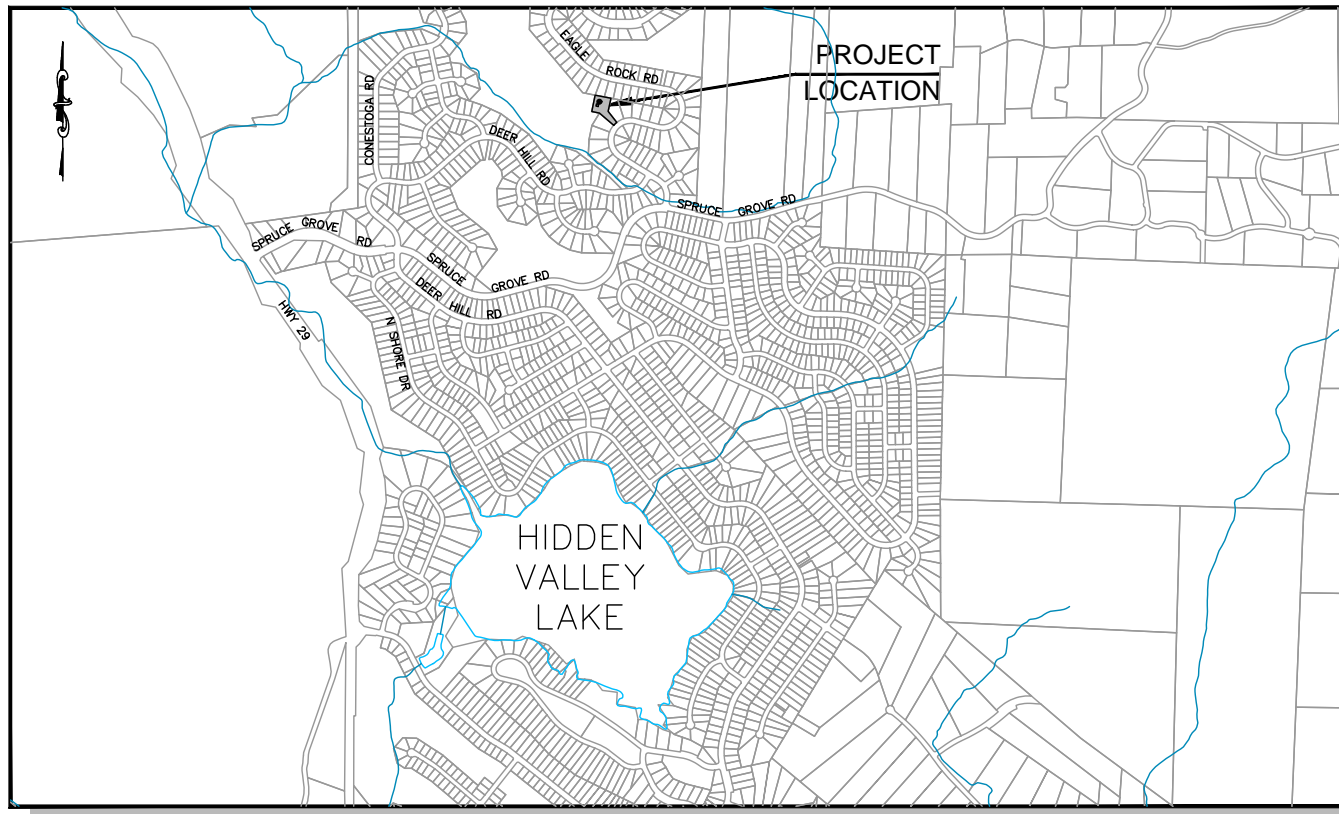
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VICINITY MAP
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LOCATION MAP
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SHEET INDEX

- | No. | Sheet Title |
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| 1 | TITLE SHEET |
| 2 | LEGEND & ABBREVIATIONS |
| 3 | PROJECT AREA, STAGING AREAS & PROPOSED LOT LINE ADJUSTMENT |
| 4 | SITE PLAN - PHASE 1 |
| 5 | SITE PLAN - PHASE 2 |
| 6 | TANK SECTIONS - PHASE 1 & 2 |
| 7 | DEFENSIBLE SPACE PLAN |

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Coastland Civil Engineering, Inc.
1400 Neotomas Avenue, Santa Rosa, CA 95405
707.571.8005 707.571.8037 Fax

**PRELIMINARY
NOT FOR
CONSTRUCTION**

JENNIFER A. MELMAN, RCE C62260 DATE



PROJECT NUMBER 99-4013
DRAWING DATE APRIL 2019
DRAWING NUMBER 1 OF 7

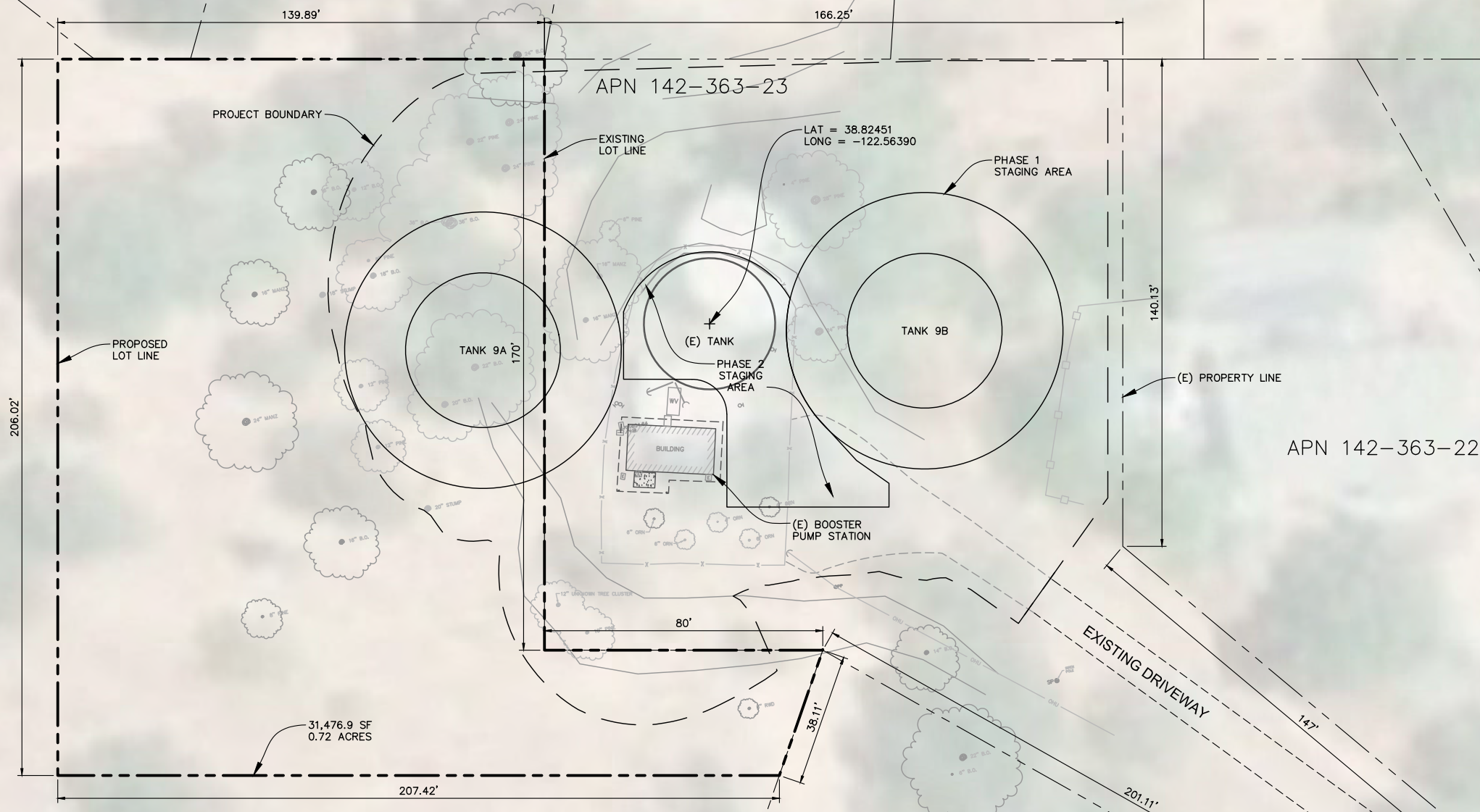
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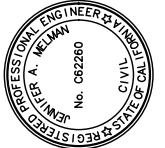


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APN 142-301-01

APN 142-363-24

APN 142-363-22



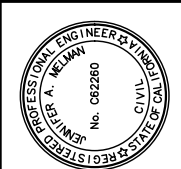
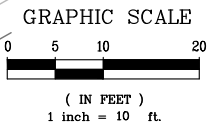
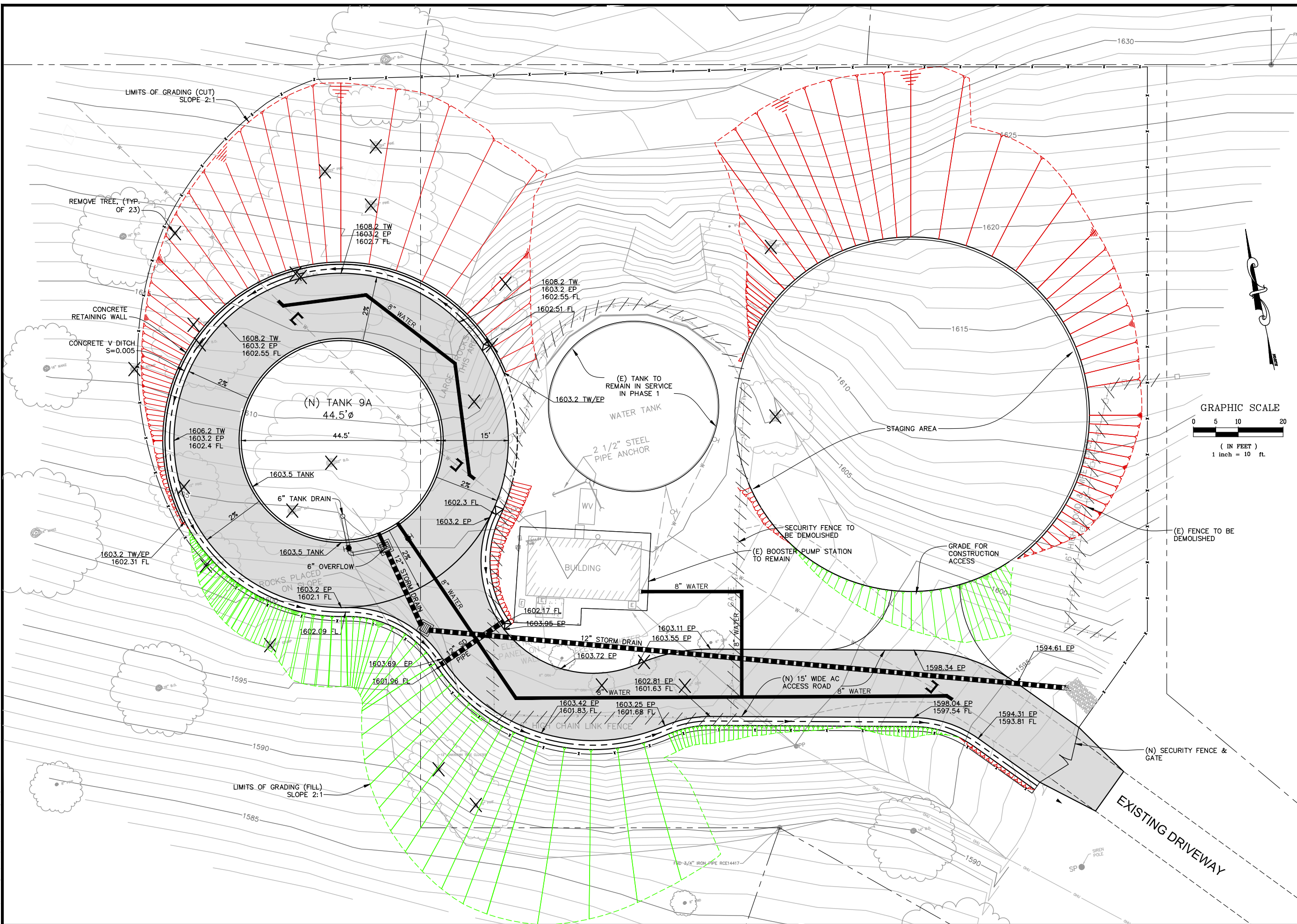
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JENNIFER A. MELMAN, RCE C62260 DATE
DESIGNED BY JAM
DRAWN BY WJK
REVIEWED BY JLLW

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HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
 WATER SYSTEM STORAGE RELIABILITY PROJECT
 HIDDEN VALLEY LAKE CALIFORNIA
PROJECT AREA, STAGING AREAS & PROPOSED LOT LINE ADJUSTMENT

PROJECT NUMBER
99-4013
 DRAWING DATE
APRIL 2019
 SHEET NUMBER
3 OF 7

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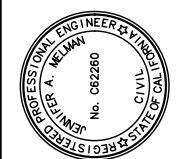
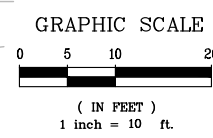
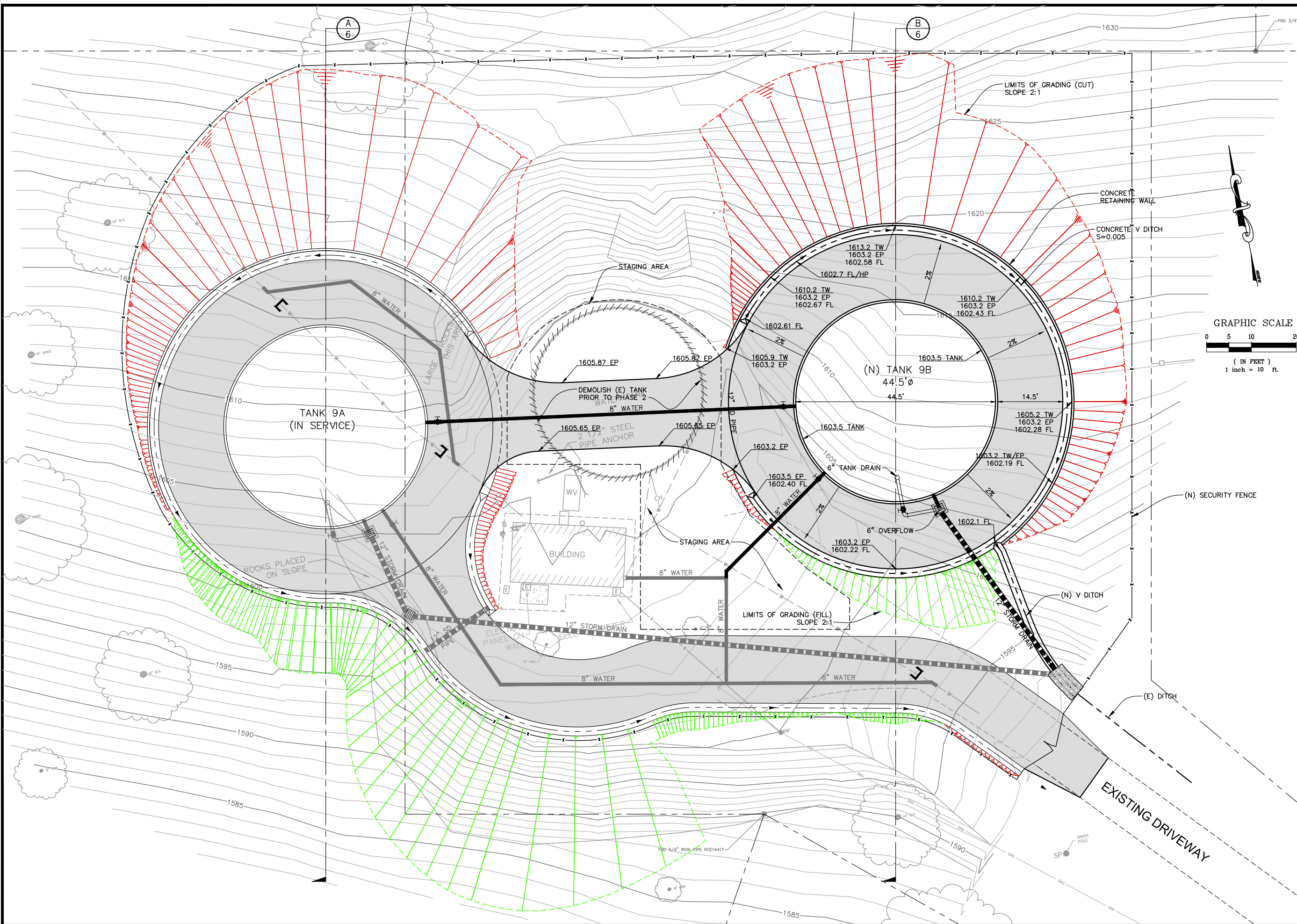
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 707.571.8037 Fax 707.571.8005

CALIFORNIA
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 WATER SYSTEM STORAGE RELIABILITY PROJECT
 HIDDEN VALLEY LAKE
SITE PLAN PHASE 1

PROJECT NUMBER: 99-4013
 DRAWING DATE: APRIL 2019
 SHEET NUMBER: 4 OF 7

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 JENNIFER A. MELMAN, RCE C62260 DATE
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HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
 WATER SYSTEM STORAGE RELIABILITY PROJECT
 HIDDEN VALLEY LAKE CALIFORNIA

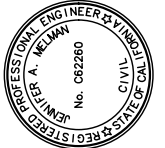
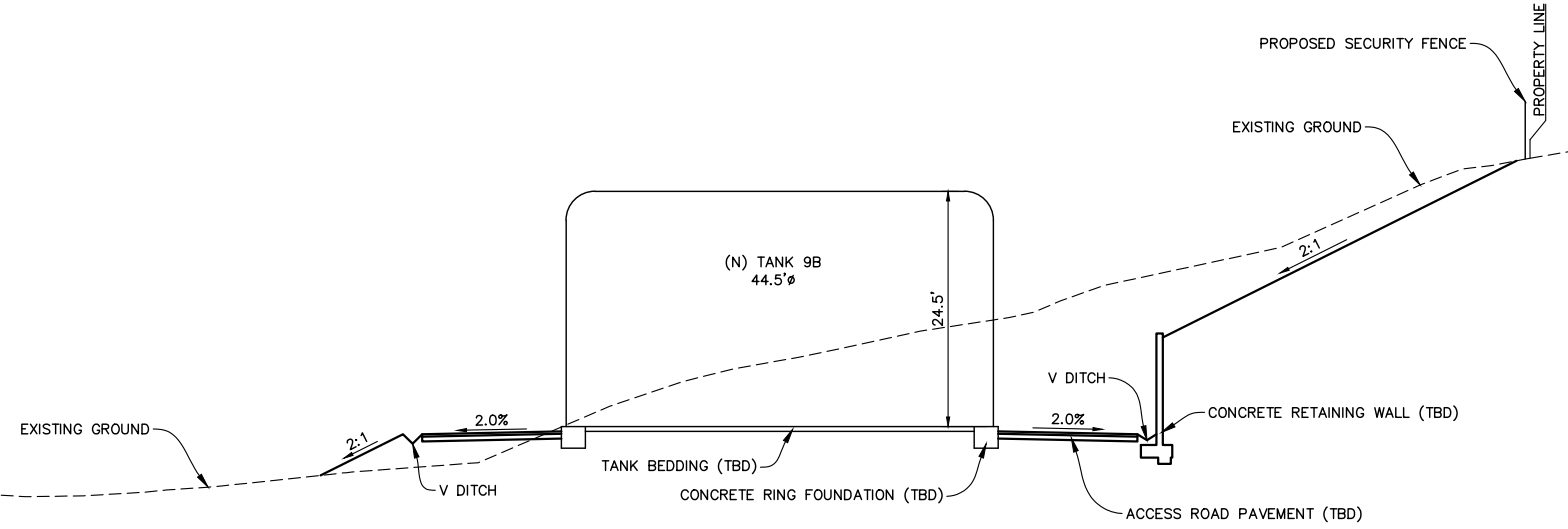
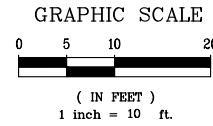
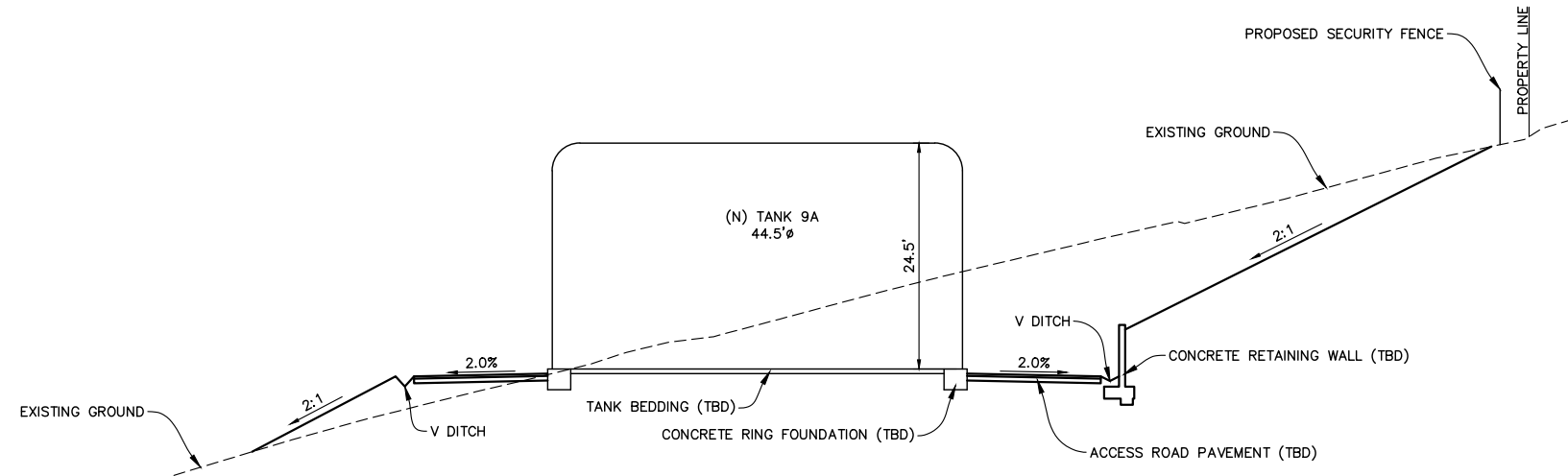
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SITE PLAN PHASE 2

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JENNIFER A. MELMAN, RCE C62260
PRELIMINARY NOT FOR CONSTRUCTION
DATE: _____
DESIGNED BY: JAM
DRAWN BY: WJK
REVIEWED BY: JLW

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HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER SYSTEM STORAGE RELIABILITY PROJECT
HIDDEN VALLEY LAKE
CALIFORNIA

**TANK SECTIONS
PHASE 1 & 2**

PROJECT NUMBER
99-4013

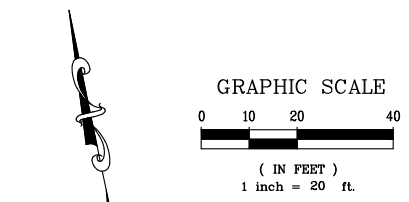
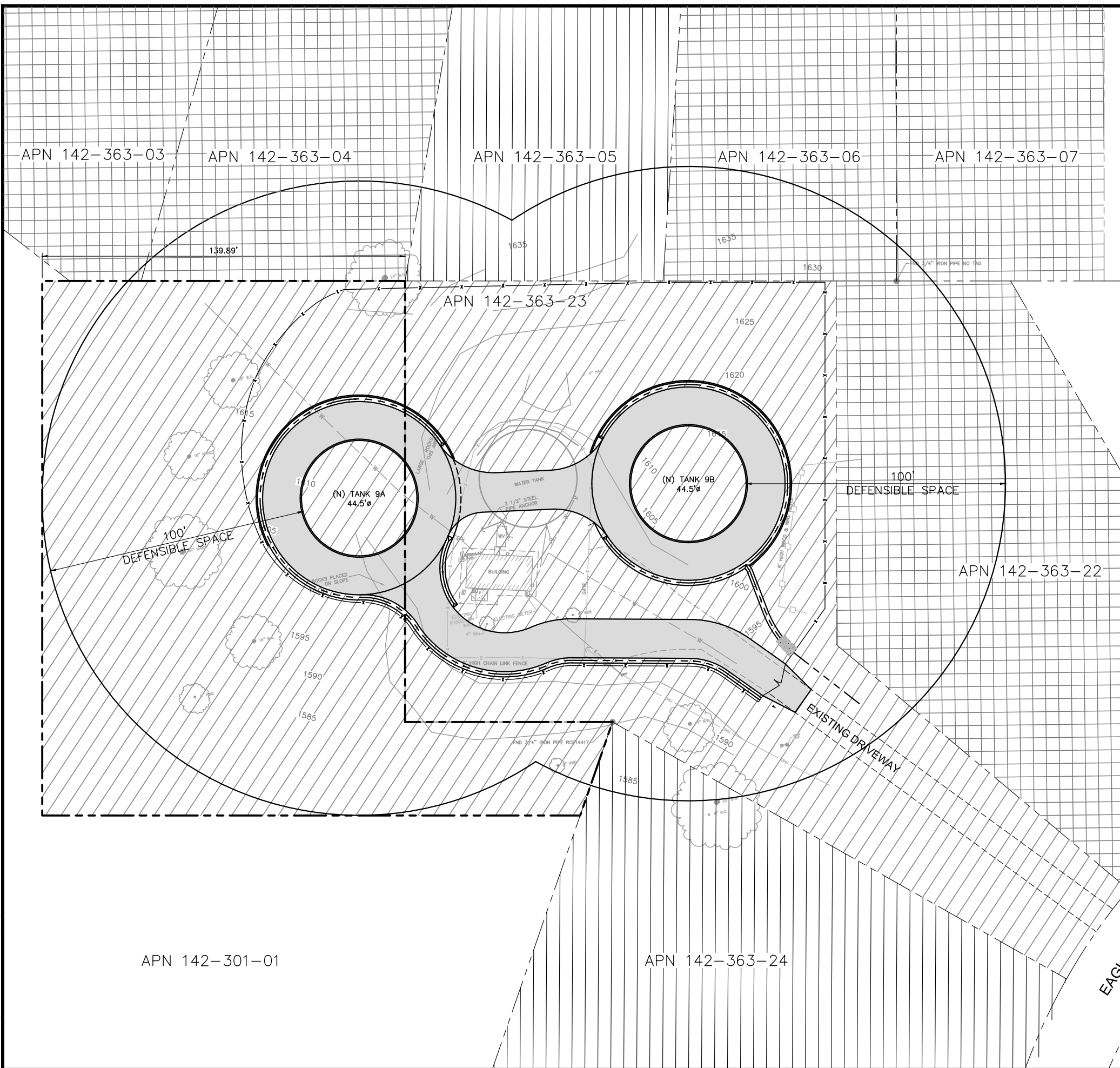
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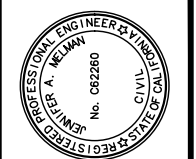


LEGEND

- PROPOSED LOT LINE ADJUSTMENT
- TANK PARCEL - DEFENSIBLE SPACE TO BE MAINTAINED BY HVL CSD
- RESIDENTIAL PARCEL - DEFENSIBLE SPACE TO BE MAINTAINED BY OWNER
- VACANT PARCEL - DEFENSIBLE SPACE TO BE MAINTAINED BY HVL HOA

DEFENSIBLE SPACE MAINTENANCE PLAN

- ONE HUNDRED PERCENT (100%) OF EACH LOT MUST BE ABATED TO THE FOLLOWING STANDARDS BY JUNE 15 OF EACH YEAR.
- ALL GRASS AND WEEDS MUST BE CUT. HEIGHT SHALL BE NO MORE THAN THREE (3") INCHES AT TIME OF INSPECTION. SPRAYING AND SCRAPING IS PROHIBITED DUE TO EROSION AND ENVIRONMENTAL CONCERNS.
- BRUSH IS TO BE TRIMMED AND THINNED WITH ALL DEAD MATERIAL REMOVED. THERE MUST BE SOME OPEN SPACE BETWEEN BRUSH.
- TREE GROWTH, INCLUSIVE OF BRANCHES, MUST BE TRIMMED UP AT LEAST SIX (6') FEET FROM THE GROUND OR ONE-THIRD (1/3) OF THE TREE HEIGHT, EXCEPT EVERGREENS.
- ALL DEAD MATERIAL MUST BE REMOVED. TREE LIMBS AND BRANCHES ARE TO BE TRIMMED WELL AWAY FROM ROOF AND CHIMNEY AREAS.
- ROOF SURFACES ARE TO BE KEPT FREE OF ACCUMULATION OF LEAVES, NEEDLES, TWIGS AND ANY OTHER COMBUSTIBLE MATERIAL.
- ALL VEGETATION AND DEBRIS MUST BE REMOVED OR STACKED IN THE RIGHT OF WAY FOR CHIPPING IN ACCORDANCE WITH HVLA'S CHIPPING PROCEDURE.



PREPARED UNDER THE DIRECTION OF
JENNIFER A. MELMAN, RCE C62260 DATE
DESIGNED BY JAM
DRAWN BY WJK
REVIEWED BY JLLW

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HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
 WATER SYSTEM STORAGE RELIABILITY PROJECT
 HIDDEN VALLEY LAKE CALIFORNIA
DEFENSIBLE SPACE PLAN

PROJECT NUMBER
99-4013
 DRAWING DATE
APRIL 2019
 SHEET NUMBER
7 OF 7

ORIGINAL PLOT DATE: DATE

PRELIMINARY PLANS FOR :

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT BACK-UP POWER RELIABILITY

JUNE 2019

HIDDEN VALLEY LAKE
LAKE COUNTY, CALIFORNIA

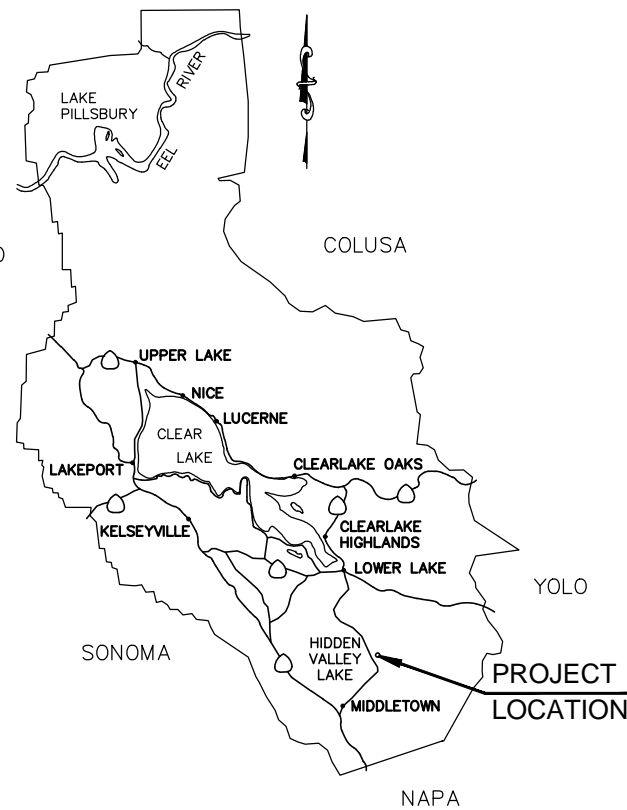
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CALTRANS STANDARD SPECIFICATIONS DATED 2015
CALTRANS STANDARD PLANS DATED 2015

FOR REDUCED PLANS, THE
ORIGINAL SCALE IS IN INCHES

3
2
1
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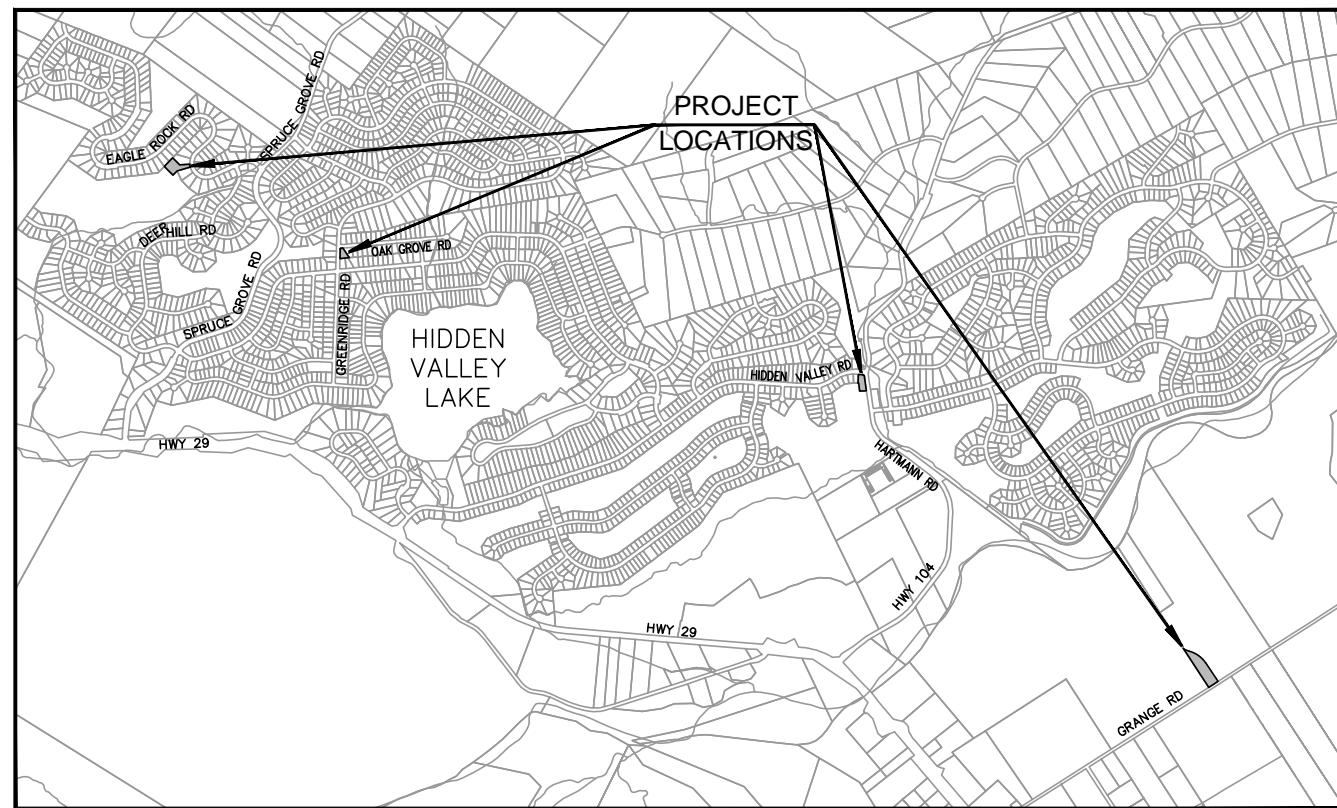
MENDOCINO

COLUSA



VICINITY MAP

NOT TO SCALE



LOCATION MAP

NOT TO SCALE

SHEET INDEX

NO.	Sheet Title
1	TITLE SHEET
2	LEGEND & ABBREVIATIONS
3	SITE PLAN - WELL FIELD
4	SITE PLAN - WATER TREATMENT PLAN
5	SITE PLAN - GREENRIDGE BOOSTER PUMP STATION SITE PLAN
6	SITE PLAN - UNIT 9 BOOSTER PUMP STATION
S1	EXTERIOR BUILDING ELEVATIONS - UNIT 9 BOOSTER PUMP STATION

Images: Xref: Calypso B-maps.dwg; COE-ENGINEERS STAMPS-COVER.dwg; COE-ENGINEERS STAMPS-PLAN.dwg
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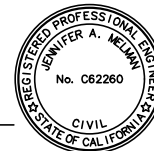
Coastland Civil Engineering, Inc.

1400 Neotomas Avenue, Santa Rosa, CA 95405
707.571.8005 707.571.8037 Fax



JENNIFER A. MELMAN, RCE C62260

DATE



PROJECT NUMBER
99-4117

DRAWING DATE
JUNE

DRAWING NUMBER

1 OF 7

BACK-UP POWER RELIABILITY

LEGEND

DESCRIPTION OF LINETYPE	PROPOSED	EXISTING
PROPERTY LINE	---	---
EASEMENT	---	---
FLOWLINE	---	---
CENTERLINE/CONTROL LINE	---	---
CHAIN LINK FENCE	---o---o---o---	---o---o---o---
WOOD FENCE	---x---x---x---	---x---x---x---
WIRE FENCE	---x---x---x---	---x---x---x---
WATER MAIN PIPE	---W---	---W---
SANITARY SEWER PIPE	---SS---	---SS---
STORM DRAIN PIPE	---SD---	---SD---
GAS LINE	---G---	---G---
TELEPHONE LINE/CONDUIT	---T---	---T---
ELECTRICAL LINE/CONDUIT	---E---	---E---
OVERHEAD UTILITY	---OHU---	---OHU---

DESCRIPTION OF SYMBOL	PROPOSED	EXISTING
CONCRETE	[Pattern]	[Pattern]
ASPHALT CONCRETE	[Pattern]	[Pattern]
ROCK SLOPE PROTECTION	[Pattern]	[Pattern]
WATER MAIN GATE VALVE	[Symbol]	[Symbol]
WATER MAIN BLOWOFF	[Symbol]	[Symbol]
WATER METER	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
BACKFLOW PREVENTER	[Symbol]	[Symbol]
SANITARY SEWER MANHOLE	[Symbol]	[Symbol]
SANITARY SEWER CLEANOUT	[Symbol]	[Symbol]
STORM DRAIN MANHOLE	[Symbol]	[Symbol]
STORM DRAIN CURB INLET/CATCH BASIN	[Symbol]	[Symbol]
STORM DRAIN DROP INLET (TOP OPENING)	[Symbol]	[Symbol]
STORM DRAIN DROP INLET (SIDE OPENING)	[Symbol]	[Symbol]
STREET LIGHT	[Symbol]	[Symbol]
TREE AND DRIP LINE	N/A	[Symbol]
SURVEY CONTROL POINT	N/A	[Symbol]
JOINT UTILITY POLE	[Symbol]	[Symbol]
ADDRESS	N/A	[Symbol]

ABBREVIATIONS

AC	ASPHALT CONCRETE	OH	OVERHEAD UTILITY
AB	AGGREGATE BASE	PB	PULL BOX
ACP	ASBESTOS CEMENT PIPE	PC	POINT OF CURVATURE
A.P.N.	ASSESSORS PARCEL NUMBER	PCC	POINT OF COMPOUND CURVE
A.R.V.	AIR RELEASE VALVE	PED	PEDESTRIAN
BC	BEGIN CURVE	PI	POINT OF INTERSECTION
BFP	BACK FLOW PREVENTER	PL	PROPERTY LINE
BO	BLOWOFF	PVC	POLY VINYL CHLORIDE
BRC	BEGIN REVERSE CURVE	PVI	POINT OF VERTICAL INTERSECTION
BSW	BACK OF SIDEWALK	PRV	PRESSURE REDUCING VALVE
BWV	BACKWATER VALVE	R	RADIUS
BVC	BEGIN VERTICAL CURVE	R.C.	RELATIVE COMPACTION
CB	CATCH BASIN	RCP	REINFORCED CONCRETE PIPE
C&G	CURB & GUTTER	RET	RETAINING
CI	CAST IRON	RPB	REDUCED PRESSURE BACKFLOW PREVENTER
CL	CENTERLINE	R&R	REMOVE & REPLACE
CLC	CONTROL LINE COORDINATE	RT	RIGHT
CMP	CORRUGATED METAL PIPE	RW	RECLAIMED WATER
CO	CLEANOUT	R/W	RIGHT-OF-WAY
CONC	CONCRETE	S	SLOPE
CP	CONTROL POINT	SD	STORM DRAIN
CR	CURB RETURN	SDE	STORM DRAIN EASEMENT
CSP	CORRUGATED STEEL PIPE	SDMH	STORM DRAIN MANHOLE
CV	CHECK VALVE	SL	STREET LIGHT
DET.	DETECTOR	SS	SANITARY SEWER
DI	DROP INLET	SSE	SANITARY SEWER EASEMENT
DIP	DUCTILE IRON PIPE	SS LAT	SANITARY SEWER LATERAL
DWY	DRIVEWAY	SSMH	SANITARY SEWER MANHOLE
E	ELECTRICAL, ELECTRICAL CONDUIT	SSCO	SANITARY SEWER CLEANOUT
EC	END CURVE	STA	STATION
EG	EXISTING GRADE	STL	STEEL PIPE
ELEC	ELECTRIC	STD	STANDARD
EL. ELEV	ELEVATION	TB	TOP OF BANK
EP	EDGE OF PAVEMENT	TBD	TO BE DETERMINED
EVC	END VERTICAL CURVE	TC	TOP OF CURB
EX.(E)	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FBG	FEET BELOW GRADE	TEL	TELEPHONE
FC	FACE OF CURB	TG	TOP OF GRATE
FG	FINISHED GRADE	TOE	TOE OF SLOPE
FL	FLOW LINE	TOP	TOP OF PIPE
FS	FINISH SURFACE	TP	TELEPHONE POLE
FSW	FRONT OF SIDEWALK	TS	TRAFFIC SIGNAL
G	GAS	TW	TOP OF WALL
GB	GRADE BREAK	TYP.	TYPICAL
G SER	GAS SERVICE	U	UNDERGROUND UTILITY
GV	GATE VALVE	UG	UNDERGROUND
HDPE	HIGH DENSITY POLYETHYLENE	UPC	UNIFORM PLUMBING CODE
HP	HIGH POINT	UTIL	UTILITY
IC	INTERCONNECT	VC	VERTICAL CURVE
IG	INVERT GRADE	VIF	VERIFY IN FIELD
INV	INVERT GRADE	VLT	VAULT
IP	IRON PIPE	VAR.	VARIES
JP	JOINT POLE	W. WTR	WATER, WATER MAIN
JT	JOINT TRENCH	WM	WATER MAIN
LAT	SANITARY SEWER LATERAL	WS	WATER SERVICE
LF	LINEAR FEET	W SER	WATER SERVICE
LG	LIP OF GUTTER	WV	WATER VALVE
LT	LEFT	< PT	ANGLE POINT
MB	MAILBOX		
MH	MANHOLE		
OG	ORIGINAL GROUND		
OD	OUTSIDE DIMENSION		

**PRELIMINARY
NOT FOR
CONSTRUCTION**

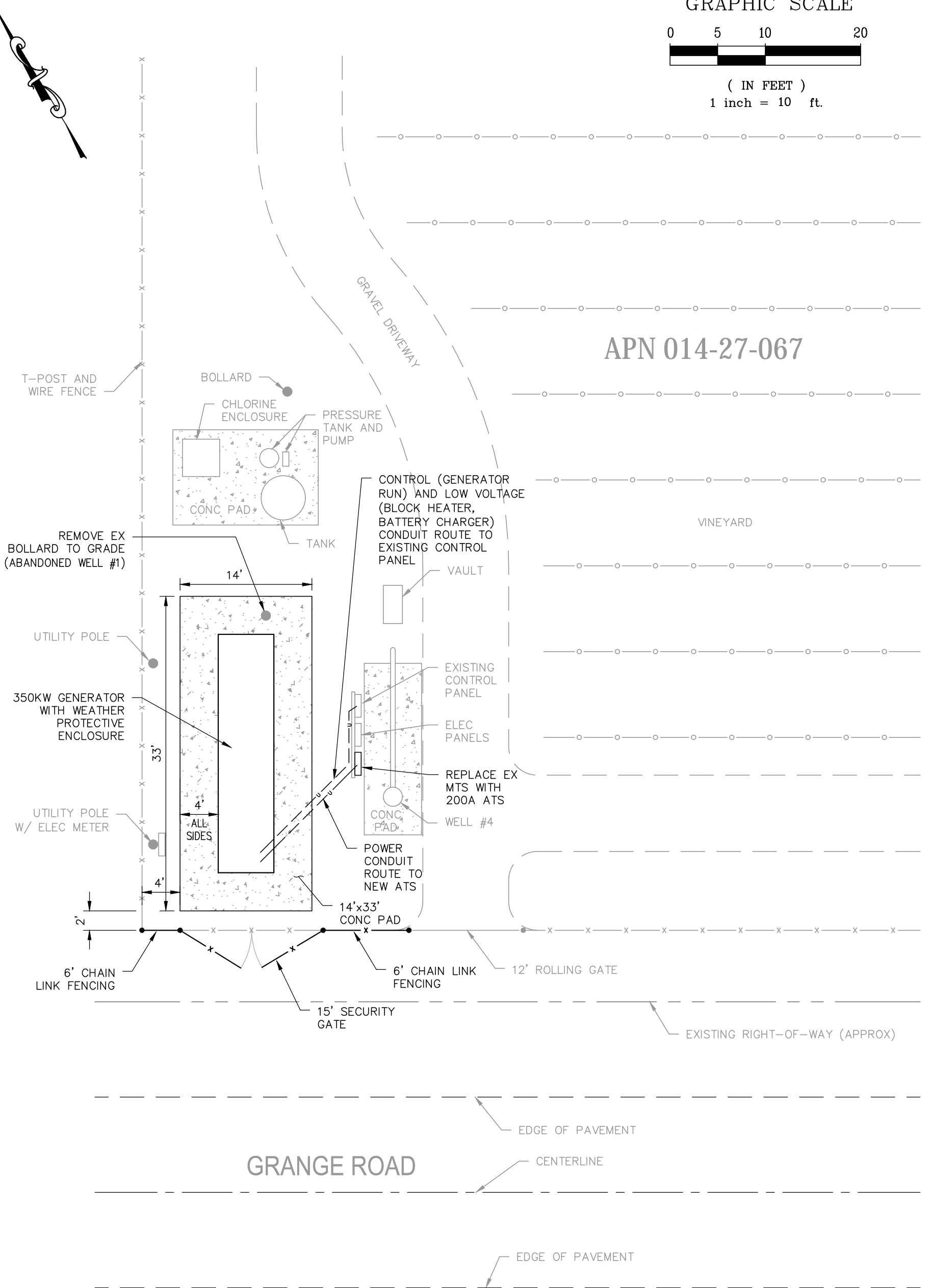
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		DRAWING DATE JUNE 2019
		SHEET NUMBER 2 OF 7

GRAPHIC SCALE



(IN FEET)
 1 inch = 10 ft.

APN 014-27-067



**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

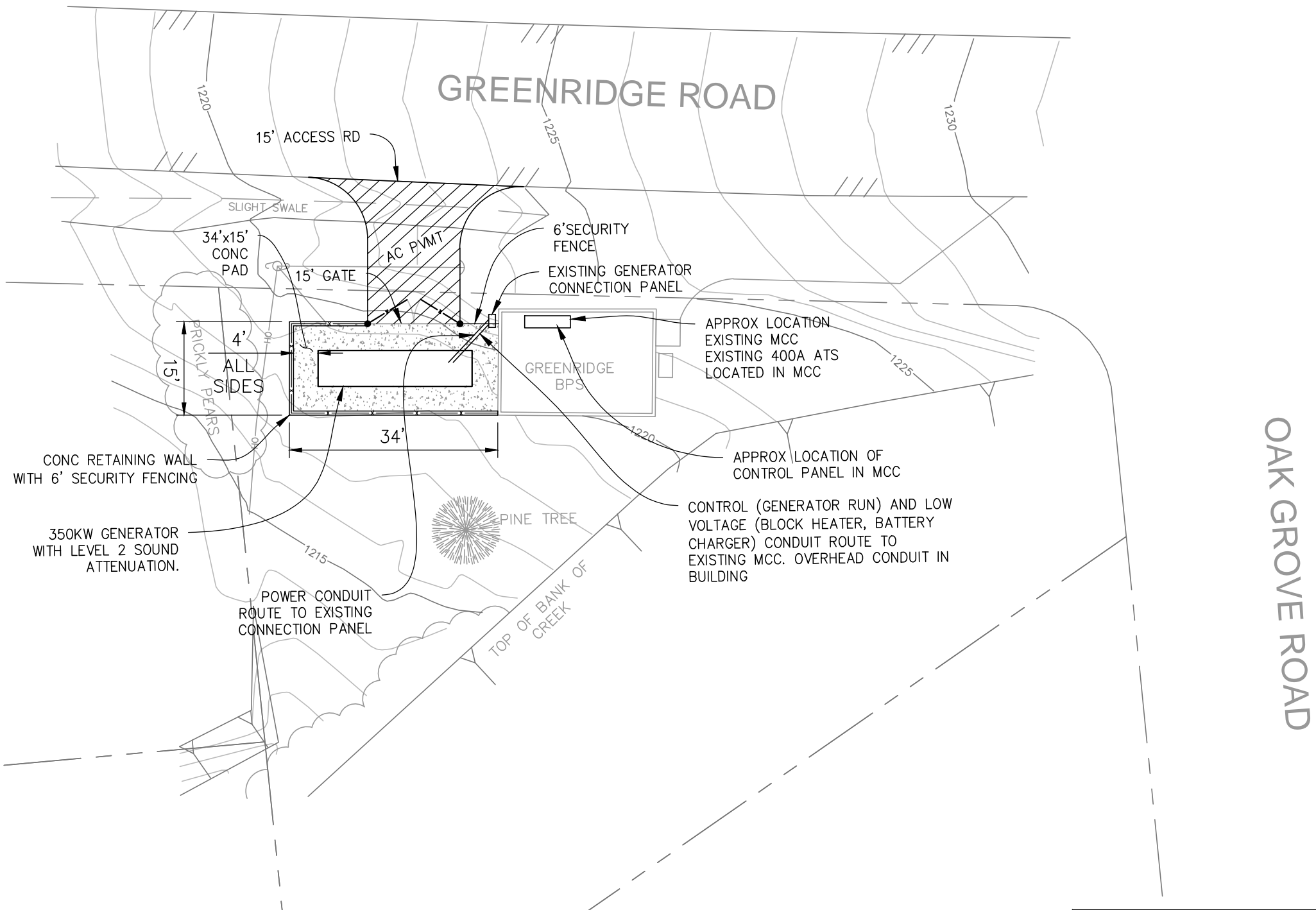
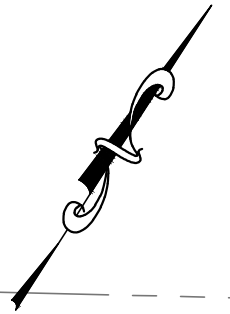
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT BACK-UP POWER RELIABILITY PROJECT	PROJECT NUMBER 99-4117
	DRAWING DATE JUNE 2019
	SHEET NUMBER 3 OF 7

ORIGINAL PLOT DATE: DATE

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.



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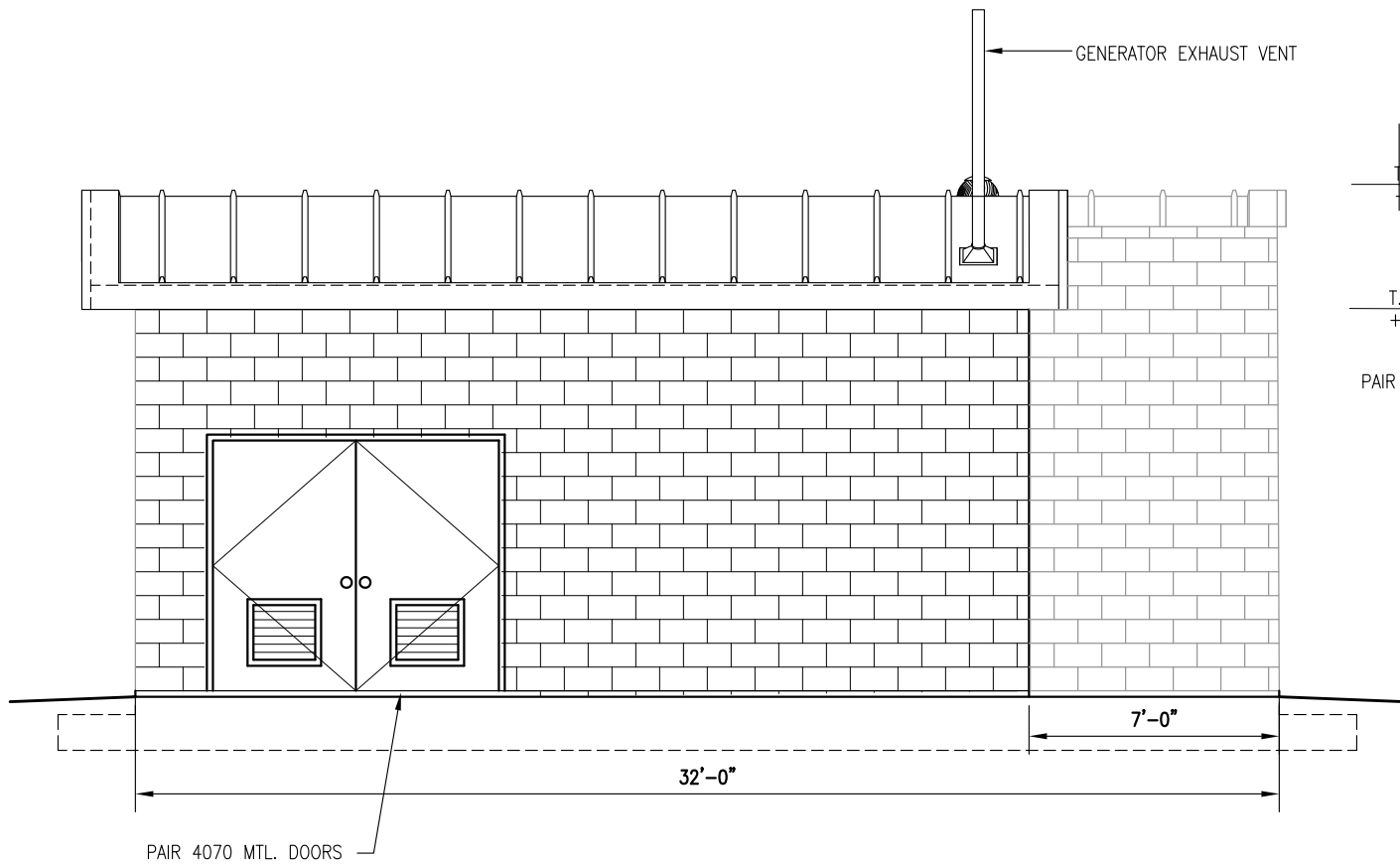


Coastland Civil Engineering, Inc.
 1400 Neotomas Avenue, Santa Rosa, CA 95405
 707.571.8005 707.571.8037 Fax

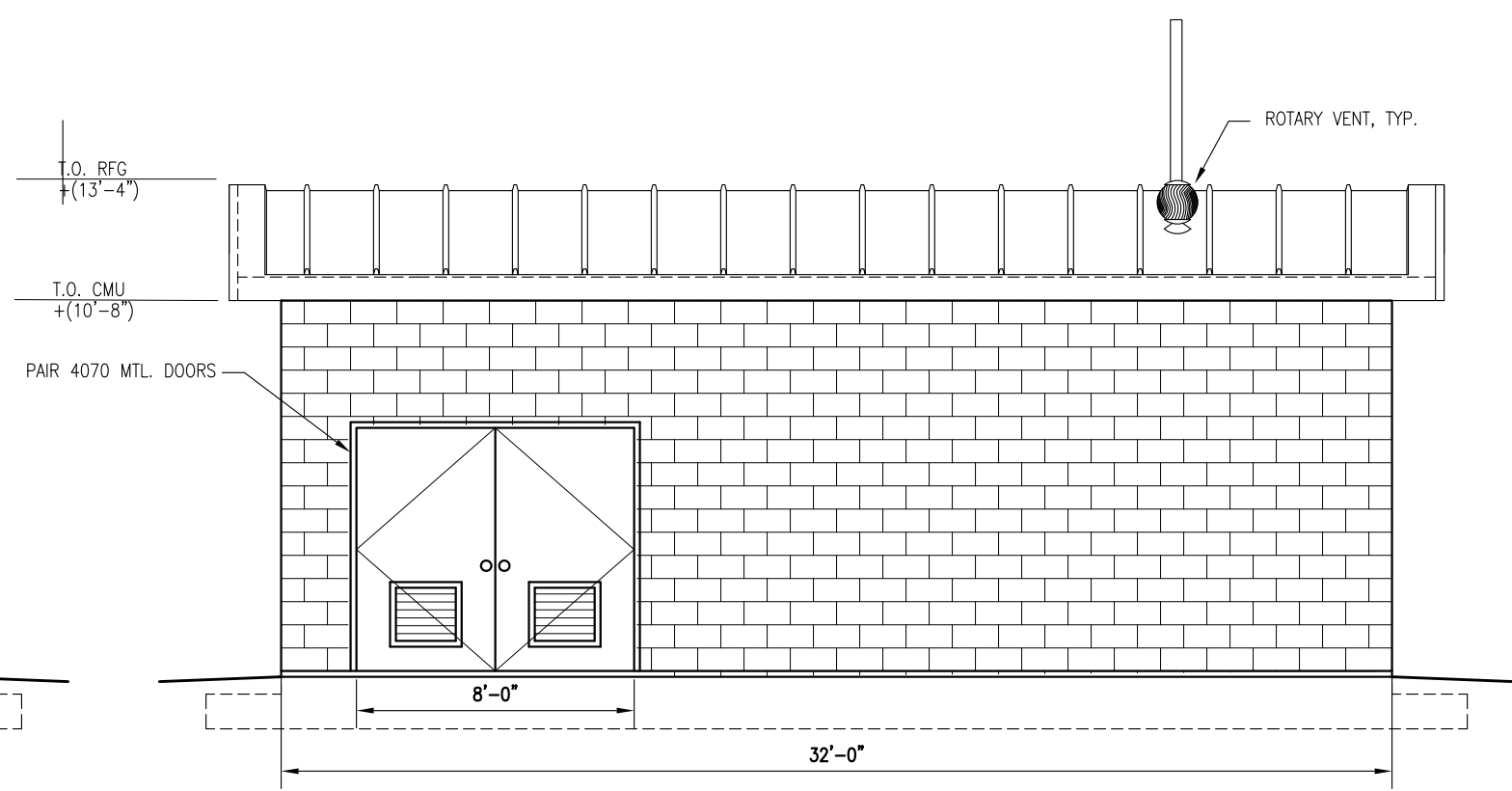
**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
 BACK-UP POWER RELIABILITY PROJECT
**GREENRIDGE BOOSTER PUMP STATION
 SITE PLAN**

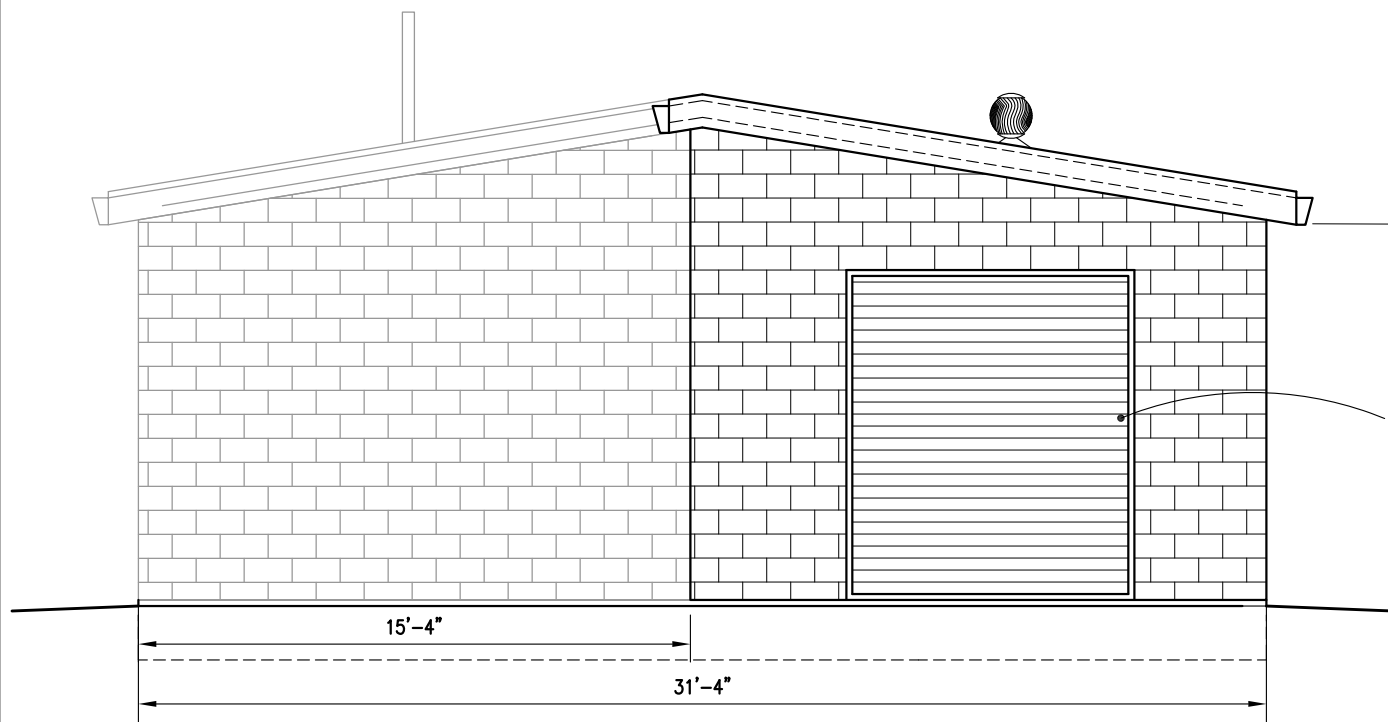
PROJECT NUMBER
99-4117
 DRAWING DATE
JUNE 2019
 SHEET NUMBER
5 OF 7



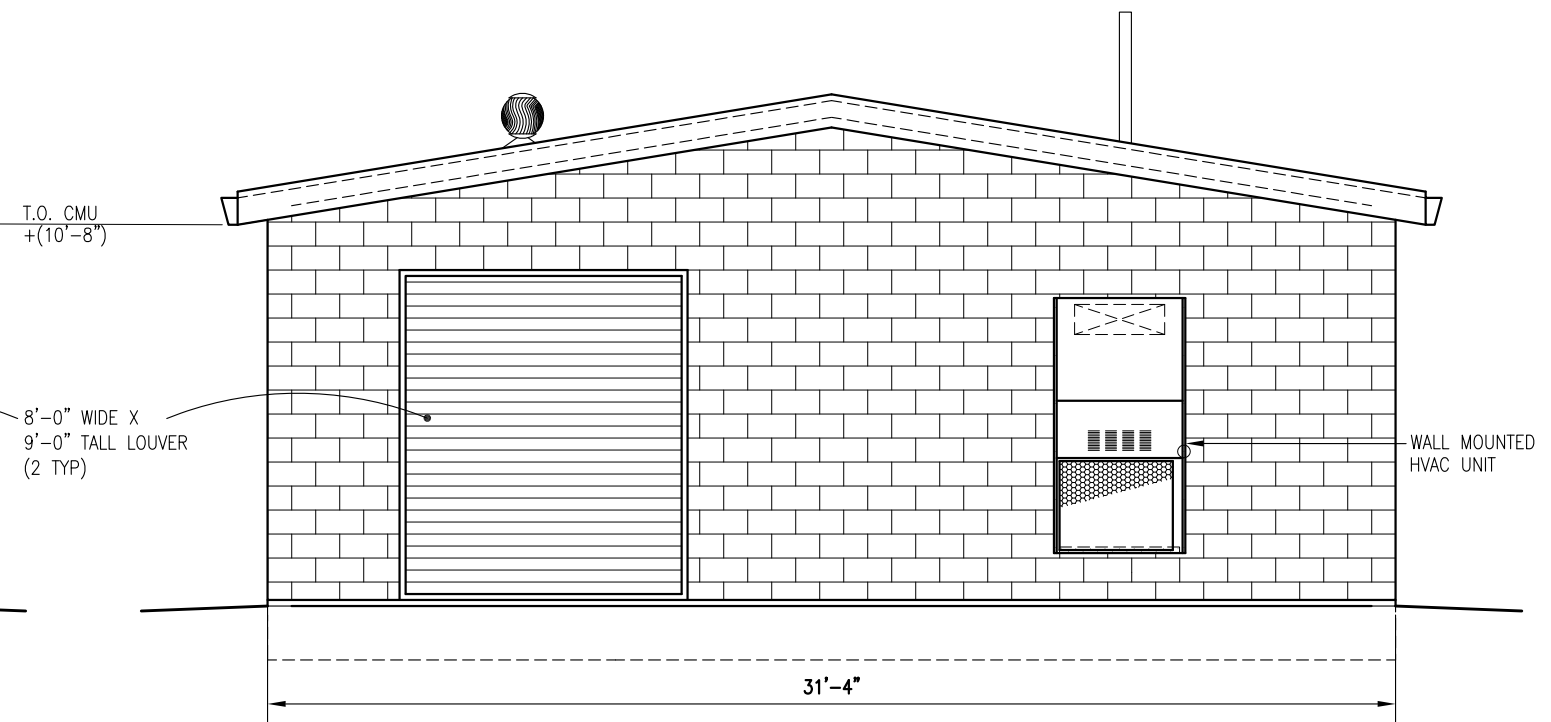
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SCALE: 3/8"=1'-0"



NORTH ELEVATION
SCALE: 3/8"=1'-0"



EAST ELEVATION
SCALE: 3/8"=1'-0"



WEST ELEVATION
SCALE: 3/8"=1'-0"

CAD FILE: G:\Projects\Coastland\19-065- Hidden Valley Lake\SS-1.dwg DATE: 6/25/2019 6:26 PM

EXTERIOR BUILDING ELEVATIONS
Coastland Civil Engineering, Inc.
Hidden Valley Lake CSD
Emergency Generator Project
Hidden Valley Lake, California

Luhdorff & Scalmanini
Consulting Engineers
500 First Street
Woodland, California

NO.	DATE	REVISION

DATE: JUNE 2019	JMC
JOB NO. : 19-5-065	AC
DESIGN BY:	
DRAWN BY:	
CHECKED BY:	
FILE: SS-1.dwg	

SHEET:
S-1

FIRE WEATHER RESEARCH LABORATORY (WWW.FIREWEATHER.ORG/DIABLO-WINDS)

Diablo Winds: California's Critical Fire Weather Pattern

As we enter the fall in northern California, one thing is on everyone's mind. Are we going to have Diablo winds like we did in 2017? Next week marks the one-year anniversary of the deadly Wine Country Fires. Three of the Wine Country Fires (Tubbs, Redwood Valley, and Atlas) as well as the Tunnel Fire (Oakland Hills) of 1991, rank in the top twenty of California's deadliest wildfires (CalFire, 2017). All four of those fires, with the addition of the Nuns Fire (2017) are also ranked in the top twenty most destructive fires (CalFire, 2018) in California's history. The Tubbs Fire alone burned over 36,000 acres and caused 22 fatalities. These fires were driven by extreme winds known as Diablo Winds.

What is a Diablo Wind?

Diablo winds are offshore wind events that flow northeasterly over Northern California's Coast Ranges, often creating extreme fire danger for the San Francisco Bay Area. Diablo winds are driven by a surface pressure gradient that forms in response to an inverted pressure trough that develops over California.

How frequent are Diablo Winds?

A 17-year climatology of regional surface stations was used to develop a definition of Diablo wind events as well as an analysis of their spatial distribution and event frequency. A synoptic composite of the identified events illustrate that Diablo wind events are associated with an inverted pressure trough that develops over California creating a pressure gradient from higher pressure over the interior northern Great Basin to lower pressure near the California coast. Results indicate Diablo winds affect regions throughout the San Francisco Bay Area with greater frequencies concentrated in the Coast Ranges nearest the Sacramento Valley. **During the 17-year study period, the region experienced a mean annual frequency of 2.5 events with the highest frequency of Diablo wind events occurring in October when the live fuel moisture is also at a**

seasonal minimum leading to the most severe fire danger conditions for the San Francisco Bay Area.

The critical issue for the Bay Area is that Diablo Winds are most frequent during the fall and in particular October, when the fuel moisture content is lowest (See Figure 1 below).

FIGURE 1: MONTHLY FREQUENCY OF DIABLO WINDS AND AVERAGE LIVE FUEL MOISTURE CONTENT (DASHED LINE).

Numerical Simulations

To better understand the dynamics of Diablo Winds, Graduate student Carrie Bowers, who is wrapping up her MS thesis investigating Diablo Winds and the cause of the extreme fire spread observed during the Tubbs Fire, conducted high-resolution computer simulations of the Tubbs Fire event. Below is a cross-section of her high-resolution model simulations using WRF. You can see that the surface winds were extremely high during the event and that a unique hydraulic-jump feature formed in the lee of Mt. Helena east of Santa Rosa. This unique aspect of the wind flow classifies Diablo Winds as a downslope windstorm.

WILDFIRE

California wildfires threaten more than 33 million acres of forestlands every year — killing wildlife, forests and natural habitats, creating smog and polluting our waterways with dangerous runoff. But **we can reduce the risk of wildfires with the help of healthy forest management — which includes forest thinning and the removal of excess “fuels” that can feed and increase the size of a fire.**

- Historically, our forests have contained 50 - 70 trees per acre, and today our forests have more than 500 - 1,000 trees per acre – increasing the risk of catastrophic wildfire.
- Wildfire has always been a part of forests, but were generally low-intensity fires that were kept low to the ground, and burned small trees and excess forest debris. This helped to clear the understory, keep the forest canopy open, and as a result guarded against mega fires.
- **Without this natural thinning, forests grew more crowded and shade tolerant trees filled the understory, providing ladder fuels for today's crown fires, that jump to the crown of the trees and quickly spread.**
- **Drought, disease, insect infestation and excess forest fuels have combined to create what fire officials call California's new year-round wildfire season.**
- Over half of California's freshwater resources originate from forests. Wildfires can compromise water quality and supply during active burning and for months and years after by increased susceptibility to both flooding and erosion.
- The Mendocino Complex Fire in 2018 burned more than 459,000 acres, the largest complex fire in the state's history.
- The two single – largest recorded wildfires in California have occurred in the last two seasons, the Ranch Fire - 282, 479 acres and the Thomas Fire – 281, 893 acres.
- In 2018, California spent almost \$2 billion fighting wildfires, which only accounts for 40% of actual economic loss.
- Two of California's most damaging and destructive wildfires in state history were the Camp Fire (2018) and the Tubbs fire (2017) which accounted for over 20 deaths and over 20,000 structures burned.
- **Fire prevention through properly managed forests can save not only tax dollars, but loss of wildlife, forest lands and the potential loss of human life.**

[Incident Information System](#) - Nationwide

[California Dept of Forestry & Fire Protection](#) - Statewide

WILDFIRE RECOVERY

Once wildfire has ravaged a landscape, landowners must consider the restoration of the lands to mitigate further damage and once again establish a diverse forest that provides for wildlife, clean air, clean water and/or sustainable wood products.

After a catastrophic wildfire, doing nothing to restore the forest can be just as damaging as the fire itself. High severity fires, which we are experiencing today, burn so hot they crystalize the soil. In these areas, the soil chemistry is changed and can no longer absorb rainfall. Without trees or roots to hold the soil in place, these areas see severe soil erosion and landslides which threaten drinking water supplies, public health and safety, and fisheries.

Charred and falling trees create hazards and contribute to future fire danger as they build up.

In large, high-severity burn areas, there are often no trees left to naturally reseed the area, so oftentimes shrubs and/or hardwoods sprout quickly and begin to overtake the nutrients needed for conifers to grow – leaving former forests as brush fields and ripe to burn again.

In these circumstances, human restoration efforts are needed. In fact, California has a 230,625 acre backlog of public land in need of restoration.

Recovery efforts differ based upon land management objectives, however, restoration efforts after wildfires are critical in mitigating further damage and establishing a new forest for future generations.

- Private forestland owners quickly harvest dead trees after a wildfire in an effort to recoup costs and to quickly reestablish a new forest. They remove hazardous trees along roadways and public rights of way.
- Salvage logging follows the strict guidelines of the California Forest Practice Rules and is enforced by multiple state and local agencies.
- Fire-killed trees retain their value for up to two years before disease sets in.
- Foresters plant a mix of native species to ensure the biodiversity of the forest.
- They leave snags and logs to provide for wildlife.
- They mitigate erosion by tilling the landscape and breaking up the burned soil to allow for new growth. They clean out and restore culverts for water runoff and restore watersheds for fisheries.
- The costs to restore forests are huge and cannot be funded through public monies alone. Allowing private companies to harvest the burned trees and sell the logs, can potentially cover the costs of reforestation, however, costly lawsuits and delays can make reforestation economically impossible.

Defensive Space: Little Peak area

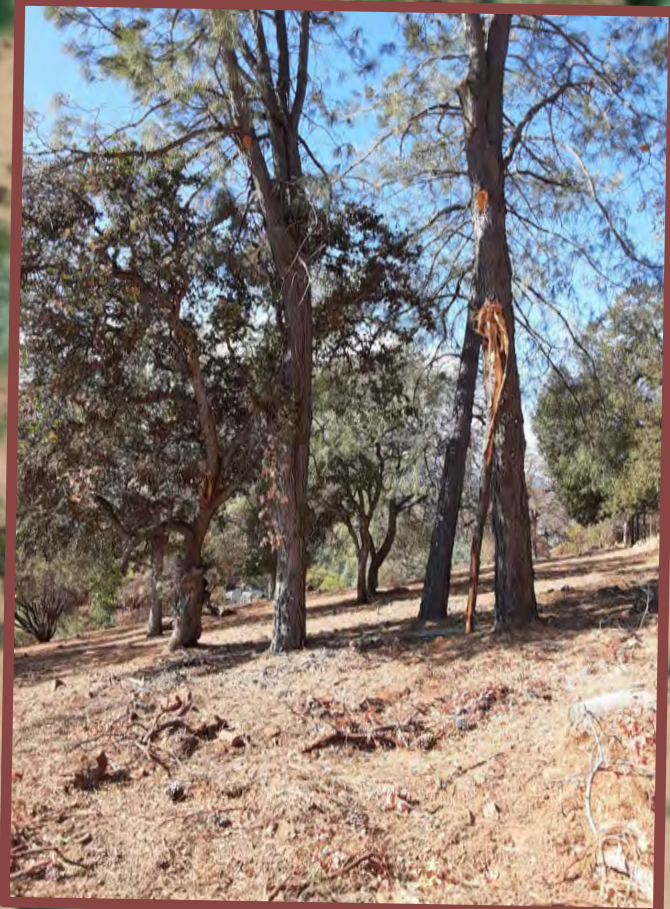


Boundary Coordinates

- A: 38.833302, -122.563883**
- B: 38.831398, -122.563364**
- C: 38.831391, -122.562308**
- D: 38.833298, -122.562714**

0 170 340 680 Feet

Defensive Space: Unit 9 Tank Easement area



Boundary Coordinates

- A: 38.825934, -122.565739**
- B: 38.825596, -122.566245**
- C: 38.824156, -122.564233**
- D: 38.824717, -122.564075**

A

B

D

C



Defensive Space, Ignition Resistant Construction: Tank 4 area



Boundary Coordinates:

- A: 38.796854, -122.549433**
- B: 38.795968, -122.549334**
- C: 38.796151, -122.546230**
- D: 38.796826, -122.548341**

A

D

C

B

0 235 470 940 Feet

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Defensive Space, Ignition Resistant Construction: Wellfield area

Structure Coordinates:

A: 38.780154, -122.556556

B: 38.780697, -122.556198

C: 38.782792, -122.555066

Grange Road
Well 3

C



Grange Road
Well 2

B

Grange Road
Well 4

A

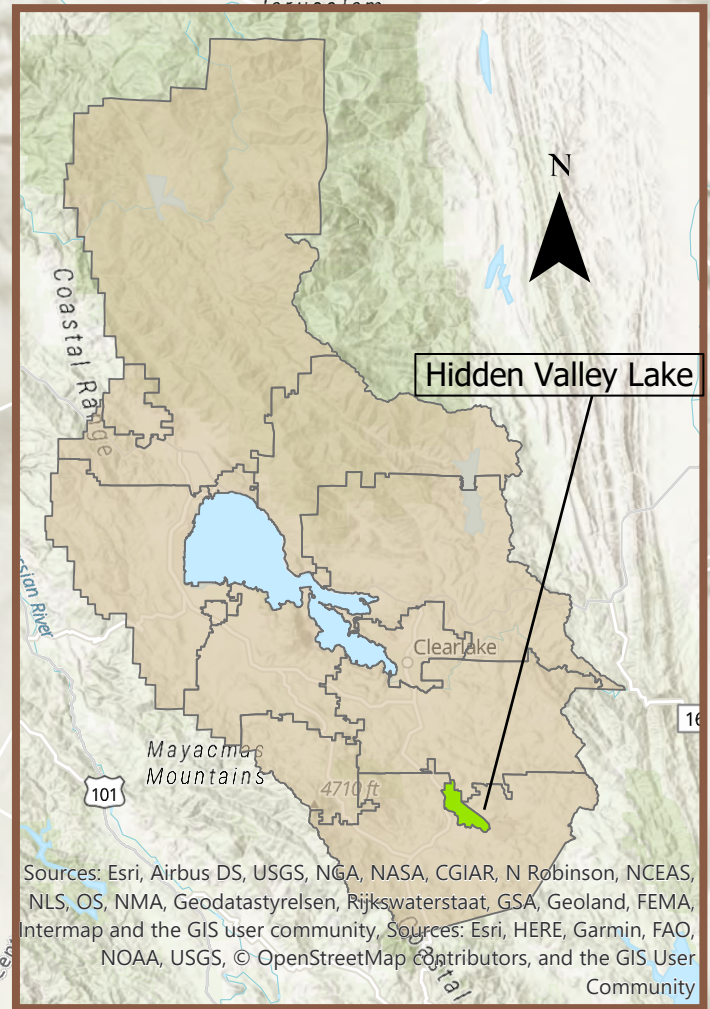


Grange Rd

Grange R

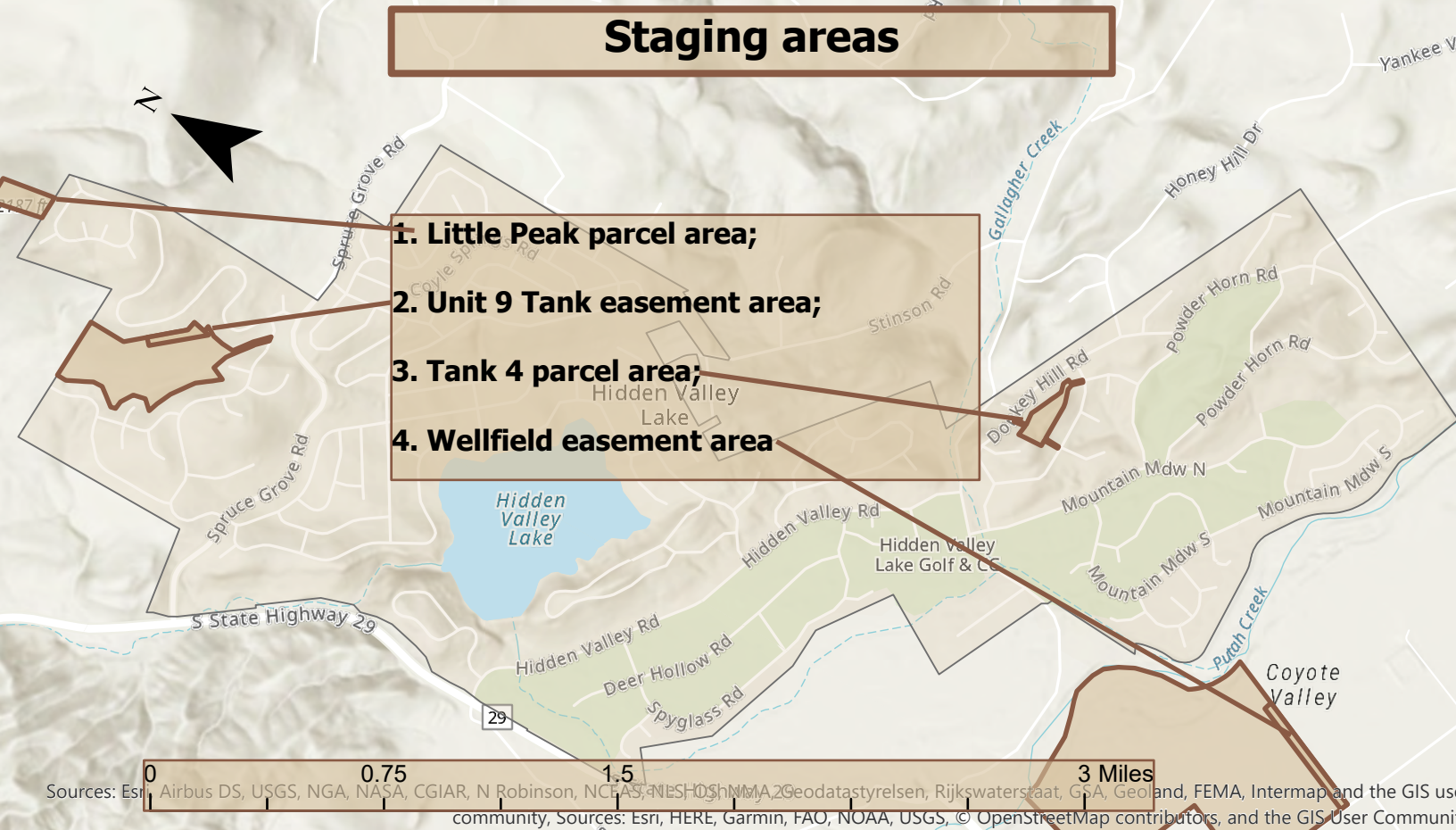
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VICINITY



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Staging areas



- 1. Little Peak parcel area;**
- 2. Unit 9 Tank easement area;**
- 3. Tank 4 parcel area;**
- 4. Wellfield easement area**

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

National Flood Hazard Layer FIRMette



122°33'41"W 38°47'4"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **1/8/2021 at 10:53 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



USGS The National Map: Orthoimagery. Data refreshed October, 2020.



Rd

Grange Rd



Little Peak





Unit 9





HVLCSD Defensive Space and Ignition Resistant Construction (DSIRC) Photos

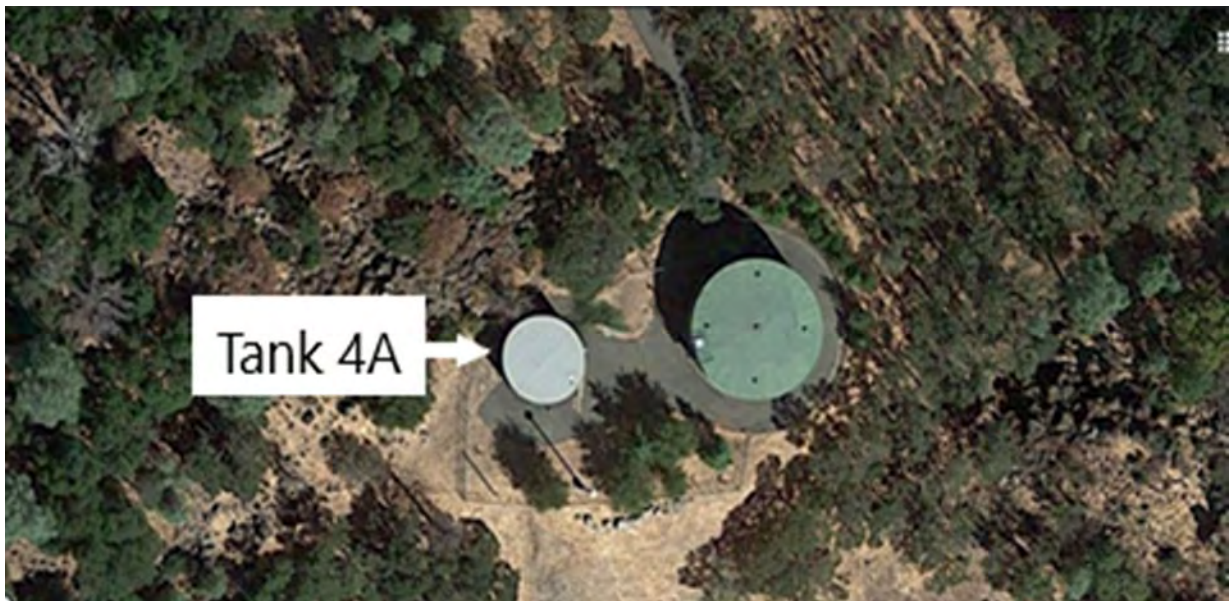
DR4558-PJ398





Tank 4







Wellfield



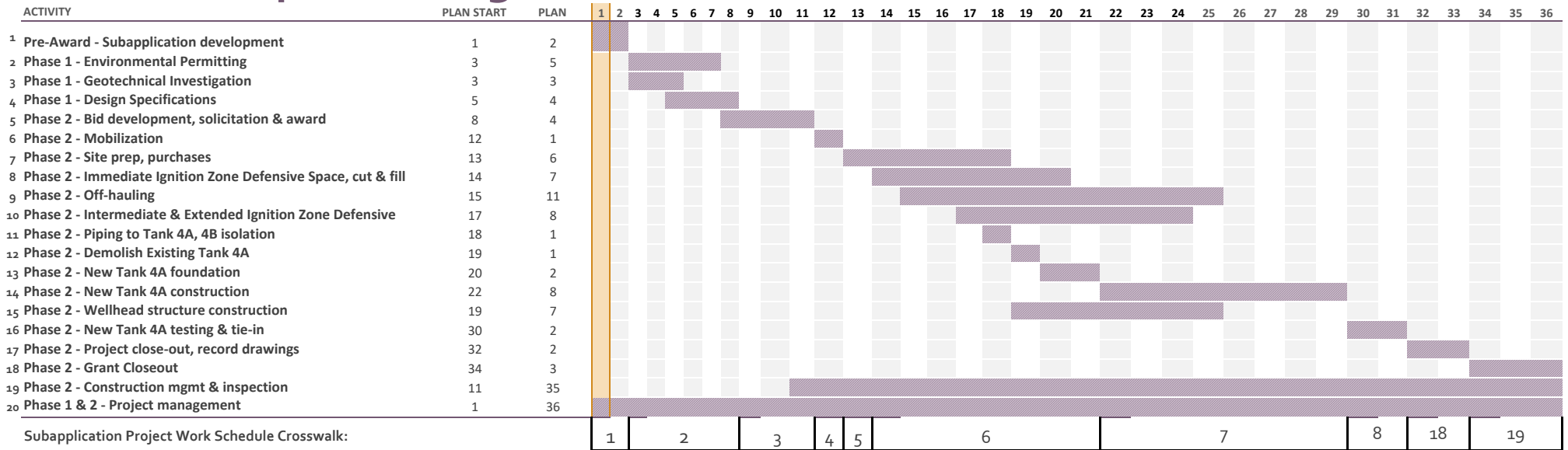


HVLCSD Defensive Space and Ignition Resistant Construction
(DSIRC) Photos

DR4558-PJ398



Defensive Space and Ignition Resistant Construction (DSIRC)





Contractor License #422364
Contractor DIR #100000899

**CONTROL SYSTEM INTEGRATION • INSTRUMENTATION SERVICES
SCADA/AUTOMATION • PLC/HMI • ELECTRICAL • CALIBRATION • MAINTENANCE**

January 13, 2021

Hidden Valley Lake CSD
18896 Grange Road, Middletown, CA,95461
Sent via Email: DWHITE@HIDDENVALLEYLAKECSD.COM

Attn: Dennis White
Subject: Hidden Valley Lake CSD /Building for Well 2
Reference: SR 30-37756

Drawings: N/A
Specifications: N/A

Dear Mr. White,

Telstar Instruments (“Telstar”) is pleased to provide a quote for the referenced project to the above identified purchaser (“Customer”). Building for Well 2

By accepting this proposal from Telstar, you agree to treat this as confidential information.

SCOPE OF SUPPLY / SERVICES

1. Telstar will provide and install a metal frame building at your Well site with a metal Gable roof and concrete Hardie board siding. A removable roof section hatch will be provided to remove your well motor or well if necessary.
2. A concrete foundation will be provided as required.
3. The building size will be 6’ x 20’ and will be equipped with overhead LED lighting powered from your existing lighting panel.

Lump Sum Quote for this Scope.....\$32,374.00

Shipping and Handling for Telstar Supplied Materials is included.
Sales Tax is included.

This quotation is based on Customer’s representation that this is a prevailing wage project.

CLARIFICATIONS, EXCEPTIONS, AND EXCLUSIONS

- a. This quotation is based on the inclusion of Telstar’s standard Terms and Conditions as part of any purchase order, contract, or other agreement.



Contractor License #422364
Contractor DIR #100000899

**CONTROL SYSTEM INTEGRATION • INSTRUMENTATION SERVICES
SCADA/AUTOMATION • PLC/HMI • ELECTRICAL • CALIBRATION • MAINTENANCE**

- b. Telstar's quotation includes only those items listed above. Requests for additions/deletions from our scope will require a change in the quoted price.
- c. Telstar assumes no responsibility for performance, applicability, compatibility, start-up, testing, or acceptance of any equipment not furnished by Telstar under this proposal.
- d. Telstar is supplying only equipment specified and noted above.
- e. Cost to obtain and pay for Building Permits are excluded.
- f. Please reference the above stated quote number in all correspondence and purchase orders.

TERMS AND CONDITIONS

Base Terms: Quotation is valid for 30 days from the date of Telstar's quotation. Payment is due and payable 30 days from date of invoice. If payment is not received by the 30th day, a .05% daily service charge (18-3/4% per annum) will be charged on all accounts past due. In the event of a dispute concerning payment, attorney's fees, court costs and costs of collection will be paid to the prevailing party. The cost for permits and bonding are excluded unless expressly referenced in Telstar's quotation. Our standard insurance applies unless agreed to in writing by Telstar. Telstar's standard one year parts only warranty applies to this quotation. All other warranties, express or implied, or referenced elsewhere in contract documents are excluded, including but not limited to implied warranties of merchantability or fitness for purpose. Unless expressly stated in Telstar's estimate, this quote is based on standard straight time hours and does not include any prevailing wage rates. The price quoted herein is for the labor and materials specifically listed within the body of this quote. Service calls are charged at a 4-hour minimum per person, excluding travel time. Unless expressly stated in the quotation, training, operation and maintenance manuals, and preparation of as built drawings are excluded from Telstar's scope of work.

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Force Majeure: Telstar shall neither be liable for loss, damage, detention or delay nor be deemed to be in default for failure to perform when prevented from doing so by causes beyond its reasonable control including but not limited to acts of war (declared or undeclared), Acts of God, fire, strike, labor difficulties, acts or omissions of any governmental authority or of Customer, compliance with government regulations, insurrection or riot, embargo, delays or shortages in transportation or inability to obtain necessary labor, materials, or manufacturing facilities from usual sources or from defects or delays in the performance of its suppliers or subcontractors due to any of the foregoing enumerated causes. In the event of delay due to any such cause, the date of delivery will be extended by period equal to the delay plus a reasonable time to resume production, and the price will be adjusted to compensate Telstar Instruments for such delay.



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Bonding: Cost of Bonding is not included. Contact Telstar for a quote if bonding is required.

We look forward to working with you on this project. If you have any questions, please contact me at the phone number below.

Sincerely,

Alan D. Strong

Alan D. Strong
Senior Project Manager
Telstar Instruments
(559) 469-3175

CC: John Gardiner



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Contractor DIR #100000899

**CONTROL SYSTEM INTEGRATION • INSTRUMENTATION SERVICES
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January 13, 2021

Hidden Valley Lake CSD
18896 Grange Road, Middletown, CA,95461
Sent via Email: DWHITE@HIDDENVALLEYLAKECSD.COM

Attn: Dennis White
Subject: Hidden Valley Lake CSD /Building for Well 3
Reference: SR 30-37756

Drawings: N/A
Specifications: N/A

Dear Mr. White,

Telstar Instruments ("Telstar") is pleased to provide a quote for the referenced project to the above identified purchaser ("Customer"). Building for Well 3

By accepting this proposal from Telstar, you agree to treat this as confidential information.

SCOPE OF SUPPLY / SERVICES

1. Telstar will provide and install a metal frame building at your Well site with a metal Gable roof and concrete Hardie board siding. A removable roof section hatch will be provided to remove your well motor or well if necessary.
2. A concrete foundation will be provided as required.
3. The building size will be 10' x 16' and will be equipped with overhead LED lighting powered from your existing lighting panel.

Lump Sum Quote for this Scope.....\$33,042.00

Shipping and Handling for Telstar Supplied Materials is included.
Sales Tax is included.

This quotation is based on Customer's representation that this is a prevailing wage project.

CLARIFICATIONS, EXCEPTIONS, AND EXCLUSIONS

- a. This quotation is based on the inclusion of Telstar's standard Terms and Conditions as part of any purchase order, contract, or other agreement.



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- b. Telstar's quotation includes only those items listed above. Requests for additions/deletions from our scope will require a change in the quoted price.
- c. Telstar assumes no responsibility for performance, applicability, compatibility, start-up, testing, or acceptance of any equipment not furnished by Telstar under this proposal.
- d. Telstar is supplying only equipment specified and noted above.
- e. Cost to obtain and pay for Building Permits are excluded.
- f. Please reference the above stated quote number in all correspondence and purchase orders.

TERMS AND CONDITIONS

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We look forward to working with you on this project. If you have any questions, please contact me at the phone number below.

Sincerely,

Alan D. Strong

Alan D. Strong
Senior Project Manager
Telstar Instruments
(559) 469-3175

CC: John Gardiner



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**CONTROL SYSTEM INTEGRATION • INSTRUMENTATION SERVICES
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January 13, 2021

Hidden Valley Lake CSD
18896 Grange Road, Middletown, CA,95461
Sent via Email: DWHITE@HIDDENVALLEYLAKECSD.COM

Attn: Dennis White
Subject: Hidden Valley Lake CSD /Building for Well 4
Reference: SR 30-37756

Drawings: N/A
Specifications: N/A

Dear Mr. White,

Telstar Instruments ("Telstar") is pleased to provide a quote for the referenced project to the above identified purchaser ("Customer"). Building for Well 4

By accepting this proposal from Telstar, you agree to treat this as confidential information.

SCOPE OF SUPPLY / SERVICES

1. Telstar will provide and install a metal frame building at your Well site with a metal Gable roof and concrete Hardie board siding. A removable roof section hatch will be provided to remove your well motor or well if necessary.
2. A concrete foundation will be provided as required.
3. The building size will be 12' x 18' and will be equipped with overhead LED lighting powered from your existing lighting panel.

Lump Sum Quote for this Scope.....\$36,154.00

Shipping and Handling for Telstar Supplied Materials is included.
Sales Tax is included.

This quotation is based on Customer's representation that this is a prevailing wage project.

CLARIFICATIONS, EXCEPTIONS, AND EXCLUSIONS

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Alan D. Strong
Senior Project Manager
Telstar Instruments
(559) 469-3175

CC: John Gardiner

HMGP Cost Estimate Spreadsheet

DATE	JURISDICTION NAME	DISASTER & PROJECT OR PLANNING #	PROJECT OR PLANNING TITLE
2/23/2020	Hidden Valley Lake Community Services District	4558-398	DSIRC

#	Item Name	Unit Quantity	Unit of Measure	Unit Cost	Cost Estimate Total
1	Pre-Award Costs:	220	HR	\$ 60.63	\$ 13,339
2	P1 - Environmental Compliance	274	HR	\$ 130.00	\$ 35,620
3	P1 - Geotechnical Study	206	HR	\$ 137.00	\$ 28,222
4	P1 - Design & Specifications	515	HR	\$ 140.00	\$ 72,100
5	P2 - Bid development, solicitation& award	25	HR	\$ 153.00	\$ 3,825
6	P2 - Mobilization	1	EA	\$ 66,839.00	\$ 66,839
7	P2 - Site prep, purchases	1	HR	\$ 192,976.00	\$ 192,976
8	P2 - Immediate Ignition Zone, Cut & Fill	1	EA	\$ 28,733.00	\$ 28,733
9	P2 - Off-hauling	1760	HR	\$ 80.00	\$ 140,800
10	P2 - Intermediate & Extended Ignition Zone	12.35	AC	\$ 37,890.00	\$ 467,942
11	P2 - Piping to Tank 4A, 4B isolation	1	EA	\$ 83,970.00	\$ 83,970
12	P2 - Demolish existing Tank 4A	1	EA	\$ 10,800.00	\$ 10,800
13	P2 - New Tank 4A Foundation	42.8	CY	\$ 2,700.00	\$ 115,560
14	P2 - Tank 4A Construction	1	EA	\$ 74,364.00	\$ 74,364
15	P2 - Wellhead structure construction	2	EA	\$ 34,264.00	\$ 68,528
16	P2 - New Tank 4A testing & tie-in				\$ -
17	P2 - Project close-out (mobilization)				\$ -
18	P2 - Grant Closeout (Separately tracked via Management Costs)				\$ -
19					\$ -
20					\$ -
21					\$ -
22					\$ -
23					\$ -
24					\$ -
25					\$ -
26					\$ -
27					\$ -
28					\$ -
29					\$ -
30					\$ -
31					\$ -
32					\$ -
33					\$ -
34					\$ -
35					\$ -
36					\$ -
37					\$ -
38					\$ -
39					\$ -
40					\$ -
Total Project Cost Estimate:					\$ 1,403,617



Introduction

The estimates presented here are a result of industry research, and engineering experience in bid tabulation calculations. Each cost explained below will reference a document presenting the source of costs. Consistent with the Project Scope of Work and Project Work Schedule, this narrative will be categorized into three discrete sections, Pre-Award Costs, Phase 1 Costs, and Phase 2 Costs.

The tasks are numbered according to the line item in the Cost Estimate Spreadsheet. Numbers in parenthesis reference the corresponding Work Schedule Line Item. The numbers in the Cost Estimate Spreadsheet are parallel to the DSIRC – Gantt project planner spreadsheet (See Section 7. Schedule, “DSIRC Gantt project planner.pdf”).

#1. Pre-Award Tasks (Work Schedule #1, Cost Estimate Spreadsheet #1)

The HVLCSD Project Manager will be responsible for attending HMGP/BCA Training, and research and development of the Subapplication to include the derivation of the Benefit Cost Ratio. Having served HVLCSD for seven years in increasingly responsible roles, the current Project Manager (PM) will provide as much in-kind support as deemed necessary and possible. Due to the phased approach of this project, it will not be necessary for HVLCSD to outsource Subapplication development. Several projects and funding opportunities during the PM’s seven-year tenure have provided a rich database of costing methods, and industry standard procedures.

As has been the case with previous HMGP funding opportunities, this effort is expected to require 220 hours of the PM’s time. The salary and benefit rate of the PM is \$60.63 (See Section 8. Cost Estimate, “Pay Rate.pdf”).

Phase 1 Tasks

Three phase 1 deliverables are Environmental Health and Preservation Review, Geotechnical feasibility study, and project Design and Specifications.

#2. Environmental Compliance (Work Schedule #2) – An environmental review was previously conducted for HVLCSD on a similar hazard mitigation project within the community. In Section 8. Cost Estimate, the document “Design & CM Work Estimate 041619.pdf” identifies environmental costs in Task 1 (Environment Compliance Investigations), and Task 2.2 Environmental Compliance. Total hours of 274, at a total cost of \$35,620 produced an average hourly rate of \$130.

#3. Geotechnical Investigation (Work Schedule #2) – In preparation for the 4382-112 HMGP project and the 4407-57 HMPG project, Coastland Engineering developed quotes for a



geotechnical study and report. Project 4382-112 (Design & CM Work Estimate 041619 Task 2.3) covered geotechnical activities that overlap with one project area of this current Subapplication 4558-398, and project 4407-57 overlaps with four project areas of this current Subapplication. The hourly costs of \$137 and time estimates of 206 hours are therefore derived from previous costing models (See Section 8. Cost Estimate, “Design & CM Work Estimate 041619.pdf” and “4407-57 Geotech quote.pdf”).

#4. Design and Specifications (Work Schedule #2) – Design and specifications for a new water storage tank, as was investigated in Design & CM Work Estimate 041619 (Task 1 Design Calculations, Task 1 Preliminary Design, Task 2.5 Prepare Bid Documents) total 515 hours and total costs of \$72,100.

Total costs for Pre-award and Phase 1 are \$145,436

Pre-Award	Environmental	Geotechnical	Design & Specs	Total
\$9,494	\$35,620	\$28,222	\$72,100	\$145,436

Phase 2 Tasks

Phase 2 is essentially the construction phase, that will begin if the Phase 1 deliverables have been met and are approved. Coastland Engineers describe their costing method as follows:

“Coastland Engineering provides municipal engineering services to cities throughout the North Bay. Part of our services are to prepare bid packages and oversee the award of contracts for public works construction. This role allows us to have a constant supply of current Contractor pricing for various construction tasks obtained from the bid tabs of work we oversee. We compile this pricing information and use it as a basis for estimating construction costs. We also get quotes directly from suppliers and manufacturer’s for specific costs, as needed.”

#5. Bid development, solicitation & award (Work Schedule #3) – This cost is based on Task 2.6 of the Design & CM Work Estimate 041619, and the description provided in Section 8. Cost Estimate, “4382-112 Cost Estimate Narrative, pdf”, as

“Contract Bid and Award. The project will be advertised, put out to public bid and awarded to the lowest bidder. Coastland Engineers will prepare any necessary addenda and respond to requests for information from contractors, provide assistance to the District as needed during the advertising process, attend the bid opening, and analyze the bids to ensure that they meet the bid requirements”.

#6. Mobilization (Work Schedule #4) – Total project costs were calculated prior to mobilization costs at \$1,336,778. Five percent (5%) of this cost \$66,839 increases the final total project costs



to \$1,403,617. Coastland has experience in tasks that are comprised of mobilization and demobilization, and costs based on bid tabulation review. As is the case with this project, \$66,839 includes tasks such as obtaining permits, installing environmental protections, moving equipment and materials to the site, hiring subcontractors, preparing submittals, demobilization, and closeout tasks for both project and grant.

#7. Site preparation, purchases (Work Schedule #5) –

- The site prep activities are defined as the last planning step of contractors, project managers, and construction management, that transitions into staging and actual construction. The cost of labor for each project area is \$5,000, for one month. Which totals \$20,000, given all parameters. This estimate has its basis in the site preparation costs of HMGP project 4407-57, from Luhdorff & Scalmanini Consulting Engineers (See Section 8. Cost Estimate, LCSE Proposal 4407-57.pdf”).

Time per project area	Number of project areas	Number of contractors	Hourly rate	Total site prep cost
20 Hrs	4	2	\$125/hr	\$20,000

- Fill costs have been calculated based on past invoices, and the amount of Xeriscape needed for this project. Defensible space guidelines state the first five (5) feet from critical infrastructure should have zero vegetation. The lack of pavement at some of the project areas has allowed for some vegetative growth that will be remediated in this project. These unpaved areas will be cut & filled with base and gravel to secure a permeable surface for protection against soil erosion as well as fire protection. A total of 150 CY will be replaced with 80% base, and 20% pea gravel. Please see Section 8. Cost Estimate “Base & Pea Gravel.pdf” for invoice information. The following table represents the steps to arrive at cost per ton, and total cost of **\$2990**.

Step	Task	Calculate	Result
1.	120 CY of base rock is converted to 168 Tons	\$12.80/T	\$2,150.40
2.	30 CY of pea gravel is converted to 42 Tons	\$20/T	\$840.00
3.	Calculate total costs	\$2,150.40 + \$840.00	\$2,990.
4.	Calculate total tonnage	168+42	200
5.	Average per ton cost	\$2,990 / 200	\$14.95



- Tank cost is estimated at **\$169,986** given the Superior Tank Estimate, from a previous project (See Section 8. Cost Estimate, “Superior Tank Estimate.pdf”).
- Adding the three separate items, \$20,000 + \$2990 + \$169,986 reveals the total cost for this line item, **\$192,976.00**.

#8. Immediate Ignition Zone, cut & fill (Work Schedule #6) -

- The Immediate Ignition Zone is defined as the first 5 feet in a total of 100’ diameter of defensible space (See Section 14. Supporting Docs, “NFPA Brochure.pdf”). In other words, this is 5% of the total defensible space calculation. Of the total 13 acres targeted for defensible space, .65 acres qualifies for zero landscaping. Coastland Engineering’s Cost Estimate Narrative (See Section 8. Cost Estimate, “4382-112 Cost Estimate Narrative.pdf”) reports that clearing and grubbing activities, are costing at \$9,000/acre, and bid tabulation review shows that tree removal costs are at \$1,620/tree. It has also been observed that clearing and grubbing will be the predominant activity in these first five feet, with an average of only 15 trees removed per acre. Total cost of tree removal per acre = \$1,620 * 15 = \$24,300
- Cut & fill is another activity in which Coastland engineering has familiarity. *“The cost of \$47.25/cy is based on the average of bid tab information from multiple projects.”*

The condition of project area immediate ignition zones varies. The Little Peak project area is 0% paved. The Unit 9 tank project area is 100% paved, the Tank 4 project area is 50% paved. The costs of cutting and filling are contingent upon the amount of unpaved area that is in the immediate ignition zone. This area is estimated at 150CY.

Task	Unit Cost	Area	Totals
Cut & Fill	47.25/CY	150 CY	\$7,088.
Clearing & Grubbing	\$9,000/ac	.65 acres	\$5,850.
Tree Removal	\$24,300/ac	.65 acres	\$15,795.
			\$28,733

#9. Off-hauling (Work Schedule #6,7) – This is simply the effort to remove cleared vegetation from the project areas. It is listed as a con-current activity with the development of defensive space in the four project areas. The duty will be shared with HVLCSD personnel using HVLCSD equipment, and the contractor. The in-kind service contribution of labor and equipment is considered a portion of the HVLCSD match commitment. Vegetation will be stored on HVLCSD land adjacent to the Wastewater



Treatment Plant at 18896 Grange Road, Middletown. Since off-hauling will be required as a result of vegetation removal in both steps 8 & 10, total time expected is 11 months, or 1,760 hours. While the total time spent by internal vs external labor and equipment will not be finalized until Phase 2 begins, this line item incorporates the hourly rate of field staff, FEMA equipment codes for HVLCSD trucks, and contracted labor and equipment costs.

#10. Intermediate & Extended Ignition Zone (Work Schedule #6,7) – The NFPA definition of intermediate zone of defensive space is 5’-30’ from the structure, and extended space is 30’-100’ from the structure being protected (See Section 14. Supporting Docs, “NFPA Brochure.pdf”). Significantly more tree work will be required in these zones, but less clearing and grubbing. Since this represents 95% of the defensive space, the per acres estimates provided use a multiplier of 12.35 (95% of 13 acres). To maintain 18’ between tree canopies in the intermediate ignition zone, and the removal of ladder fuels 6’-10’ from the ground, and an average of 22 trees removed per acre ($\$1,620 * 22 = \$35,640$), and 25% of standard clearing and grubbing costs per acre ($\$9,000 * .25 = \$2,250$) was used in this calculation.

Task	Unit Cost	Area	Totals
Clearing & Grubbing	\$2,250/ac	12.35 acres	\$27,788
Tree Removal	\$35,640/ac	12.35 acres	\$440,154
			\$467,942

#11. Piping to Tank 4A, 4B isolation (Work Schedule #6) – From Coastland’s “4382-112 Cost Estimate Narrative.pdf” (Section 8. Cost Estimate),

“Unit costs for water main pipe and valves are based on the average of bid tab data from similarly sized projects...buried water main will be 8” C900 PVC pipe, and ...exposed water main will be ductile iron. This cost also includes connecting the new water pipe to the existing water main (once the tank [is built]).”

Measurements taken for the Tank 4 storage area were taken from the junction at the street to the tank at the top of the hill. Exposed piping lengths were drawn from the “4382-112 Construction cost estimate spreadsheet.pdf” (See Section 8. Cost Estimate), with the 4558-398 having a slightly smaller footprint. Gate Valve quantity was also extrapolated based on the footprint of the Tank 4 storage area piping configuration.

Description	Quantity	Unit Cost	Totals
-------------	----------	-----------	--------



C900 PVC	410 LF	\$162/LF	\$66,420
Ductile Iron Pipe (DIP)	20 LF	\$270/LF	\$5,400
Gate Valve	5	\$2,430 EA	\$12,150
			\$83,970

These costs also incorporate the testing and tie-in of water mains prior to the completion of Phase 2.

#12. Demolish existing Tank 4A (Work Schedule #6) – The size of the tank to be demolished in a previous HMGP Subapplication 4382-112 is the same size as the tank to be demolished in this 4558-398 Subapplication. Prices derived from 4382-112 Construction cost estimate spreadsheet.pdf (See Section 8. Cost Estimate) at **\$10,800**.

#13. New Tank 4A Foundation (Work Schedule #6) – The size of the tank to be installed in a previous HMGP Subapplication 4382-112 is the same size as the tank to be installed in this 4558-398 Subapplication. Prices derived from 4382-112 Construction cost estimate spreadsheet.pdf (See Section 8. Cost Estimate) at 42.8 CY @ \$2,700/CY = **\$115,560**.

#14. Tank 4A Construction (Work Schedule #7) – Three portions of the 4382-112 Construction Cost Estimate spreadsheet (See Section 8. Cost Estimate), were drawn upon to calculate this item. Line 22 of the 4382-112 Construction Cost Estimate spreadsheet includes both the cost of the tank, and the labor to construct. Subtraction of tank cost (See Section 8. Cost Estimate, “Superior Tank Estimate.pdf”) from Line 22 results in the tank construction cost.

$$\$229,500 - \$169,986 = \$59,514$$

Other tasks involved in tank construction are the Electric System, and the Cathodic Project (Lines 25 & 26 of “4382-112 Construction Cost Estimate spreadsheet.pdf, Section 8. Cost Estimate)

Tank Construction	Electrical System	Cathodic Protection	Total
\$59,514	\$8,100	\$6,750	\$74,364



#15. Wellhead structure construction (Work Schedule #6,7) – This portion of the project has been vetted by a local municipality contractor, Telstar Instruments (See Section 8. Cost Estimate, “Telstar Structure Quote.pdf”). Well 4 and Well 2 are targeted for the ignition resistant structure. The Well 4 structure is quoted at \$36,154, and the Well 2 structure is quoted at \$32,374. These two prices were added together, then divided by 2, to reach a per each price,
 $(\$36,154 + \$32,374)/2 = \$34,264$
 $\$34,264 * 2 = \mathbf{\$68,528}$

The three remaining line items in the Cost Estimate Spreadsheet have no costs associated but appear here to remain consistent with the Work Schedule and DSIRC Gantt project planner.

#16. New Tank 4A testing & tie-in (Work Schedule #8) – The costing is included in the “Piping to Tank 4A” Cost Estimate.

#17. Project closeout (mobilization) (Work Schedule #18) – The costing is included in the “Mobilization” Cost Estimate.

#18. Grant Closeout (Work Schedule #19) – These costs will be tracked separately via Management Costs.



HVLCSD Defensive Space and Ignition Resistant Construction
(DSIRC) Pay Rates

DR4558-PJ398

March 2, 2021

RE: Pay Rates

I hereby verify that the Pay Rates schedule below is a current and accurate depiction of wages and fringe benefit rates.

HOURLY LABOR COSTS		Current Step	* Employee Compensation							CalPERS	MEDICARE	TOTAL	
1 Employee		Hourly Wage	Health	Denatal	Vision	Life	Sick	Vacation	0.07	0.0145	hourly rate		
2 General Manager	Dennis	\$ 60.00	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.77	\$ 4.61	\$ 7.20	\$ 0.87	\$ 86.30	Dennis	
3 Admin Svrc Mgr	Penny	\$ 36.22	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.67	\$ 1.39	\$ 2.54	\$ 0.53	\$ 53.54	Penny	
5 Acct Supervisor	Trish	\$ 45.21	\$ 5.53	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.09	\$ 3.48	\$ 5.43	\$ 0.66	\$ 62.37	Trish	
6 Sr Acct Rep	Marty	\$ 31.25	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.44	\$ 1.20	\$ 2.19	\$ 0.45	\$ 47.80	Marty	
7 Acct Rep	Donna	\$ 21.82	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.01	\$ 0.84	\$ 1.53	\$ 0.32	\$ 40.58	Donna	
8 Project Manager	Alyssa	\$ 41.67	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.92	\$ 2.41	\$ 2.92	\$ 0.60	\$ 60.63	Alyssa	
9 Water Respirece	Hannah	\$ 28.11	\$ 5.53	\$ 0.19	\$ 0.12	\$ 0.08	\$ 1.30	\$ 1.08	\$ 1.97	\$ 0.41	\$ 38.39	Hannah	
10 Utility Supervisor	Barry	\$ 43.87	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 2.02	\$ 1.69	\$ 5.26	\$ 0.64	\$ 68.24	Barry	
11 OP II	Brandon	\$ 30.33	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 50.41	Brandon	
12 OP II	Nate	\$ 30.33	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 46.74	Nate	
13 OP I	Nik	\$ 24.70	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.14	\$ 0.95	\$ 2.96	\$ 0.36	\$ 45.14	Nik	
14 Utility Tech	Domminic	\$ 19.12	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 34.75	Dominic	
15 Utility Tech	Russell	\$ 19.12	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 1.34	\$ 0.28	\$ 37.46	Russell	
16 Utility Tech	Jesse	\$ 19.12	\$ 14.38	\$ 0.40	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 38.11	Jesse	
Utility Tech	Vacant	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ -		\$ -	\$ -	\$ 0.08	Vacant	
** Red number indicates PEPR class													

Trish Wilkinson

Trish Wilkinson
Accounting Supervisor
Hidden Valley Lake Community Services District



WORK ESTIMATE

HMGP Application
Water Storage Reliability

Estimate for Design and Construction Management Services

Hidden Valley Lake CSD

Task #	Task Description	Coastland Engineering							Surveyor			RGH Consultants			WRA Consultant				Sonoma Electrical Engineering			Total Hours	Additional Costs	Total Cost	Subconsultant / Notes																		
		Principal Engineer	Senior Civil Engineer/PM	Struct Engineer	CAD Designer	Junior Engineer	Const Manag	Inspector	Principal LS	Survey Tech	2-Person Field Party	Principal	Senior Engineer	Project Geologist	Principal	Senior Planner	Field Biologist	Cultural Res. Tech	Principal Engineer	Senior Civil Engineer	CAD Designer																						
		\$190	\$150	\$160	\$140	\$135	\$190	\$160	\$195	\$140	\$275	\$195	\$140	\$120	\$190	\$155	\$135	\$125	\$195	\$150	\$65																						
1 PRE-AWARD DESIGN TASKS (In pr																																											
	Site Visit		4																					4		\$600																	
	Attend HMGP Training		8																				8		\$1,200																		
	Survey							1	2	8													11		\$2,730	Cinquini & Passarino																	
	Environmental Compliance Investigations													20	60	60	60						200		\$25,000	WRA subconsultant																	
	Prepare Engineering Calculations		8			8																	16		\$2,280																		
	Preliminary Design	1	10		50		2																63		\$9,070																		
	Prepare Scope of Work, Cost Estimates and Schedule	1	8			8																	17		\$2,470																		
	Prepare Benefit-Cost Analysis (BCA)		8																				8		\$1,200																		
	Prepare Sub-Application	1	8			5																	14		\$2,060																		
	Subtotal Pre-Award Design																						341		\$46,610																		
2 POST-AWARD DESIGN TASKS																																											
2.1 Meeting with District																																											
	Kick Off Meeting/ Review Design Criteria and Tank Operation and Control (1)	4	4		4																			12		\$1,920																	
	Progress Design Review Meetings (2)	3	6																					9		\$1,470																	
	Subtotal																						21		\$3,390																		
2.2 Environmental Compliance																																											
	Prepare Env. Compliance Documentation													10	20	20	20							70		\$10,200	WRA subconsultant																
	Coordination with Environmental Planner	1	3																				4		\$640																		
	Subtotal																						74		\$10,840																		
2.3 Geotechnical Study																																											
	Geotechnical Study										6	20	25											51		\$6,970	RGH Consultants																
	Coordination with Geotechnical Engineer		1	1																			2		\$310																		
	Subtotal																						53		\$7,280																		
2.4 Lot Line Adjustment																																											
	Obtain Title Reports and Pay County Fees					5																		5	\$3,900	\$675																	
	Prepare Grant Deed and Legal Descriptions					5																		5		\$675																	
	Coordination with District and HOA		3			10																		13		\$1,800																	
	Subtotal																						23	\$3,900	\$3,150																		
2.5 Prepare Bid Documents																																											
60% Submittal																																											
	Improvement Plans (Partial set - 11 sheets)		50	8	88	10																		156		\$22,450																	
	Preliminary Specifications		10	4		15																	29		\$4,165																		
	Preliminary Cost Estimate		4		5																		9		\$1,300																		
	QC Review/Value Engineering	3	4				2																9		\$1,550																		
	50% Submittal Subtotal																						203		\$29,465																		
95% Submittal																																											
	Improvement Plans (Full set - 19 sheets)		24	2	80																			106		\$15,120																	
	Electrical/SCADA Design													4	35		30						69		\$7,980																		
	Specifications		10			15																	25		\$3,525																		
	Cost Estimate		4		5																		9		\$1,300																		
	QC Review/Constructability Review	2	4				1																7		\$1,170																		
	95% Submittal Subtotal																						216		\$29,095																		
Final Submittal																																											
	Final Documents	1	6		10																			17		\$2,490																	
	100% Submittal Subtotal																							17		\$2,490																	
	Subtotal																						436		\$61,050																		
2.6 Contract Bid and Award																																											
	Addendum/questions during bid	1	2		2	4																		9		\$1,310																	
	Notice to bidders/advertisement		4			3																		7		\$1,005																	
	Bid Opening attendance	3	3																					6		\$1,020																	
	Bid analysis/recommendation	1	2																					3		\$490																	
	Subtotal																						25		\$3,825																		
2.7 Construction Management and Inspection																																											
	Construction Management	6																						1420		\$227,338																	
	Inspection	6					60																	66		\$12,464																	
	Subtotal																							1485		\$239,800																	
SUBTOTAL POST-AWARD DESIGN & CM//																																											
Total Hours		33	198	15	244	88	65	1414	1	2	8	6	20	25	30	80	80	80	4	35	30	2459																					
Total Project Cost		\$6,342	\$29,700	\$2,400	\$34,160	\$11,875	\$12,350	\$226,240	\$195	\$335	\$2,200	\$1,170	\$2,800	\$3,000	\$5,700	\$12,400	\$10,800	\$10,000	\$780	\$5,250	\$1,950		2459		\$379,845																		

From: [Matt Moyneur](#)
To: [Jason Coleman](#)
Cc: [Jennifer Melman](#)
Subject: RE: Hidden Valley Lake - Emergency Generator Project
Date: Monday, June 17, 2019 4:27:35 PM

Hi Jason,

My cost estimates are provided below. If the project moves forward, then I will get you a formal proposal with a more detailed description of our work. Let me know if that will work or if you need a more detailed scope by Wednesday.

My estimated budgets for the scope you outlined in your email are as follows:

Geotechnical Report	\$10,000
Peer Plan Review	\$1500
Construction Testing	\$9000

Matt Moyneur, MS, PE, GE
Senior Engineer
mmoyneur@wallace-kuhl.com
916-372-1434 phone / 916-870-8834 cell



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Geotechnical Engineering | Environmental & Ecological Services | Engineering Geology | Earthwork and Construction Materials Testing and Inspection | Construction Materials Laboratory

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From: Jason Coleman <jcoleman@lsce.com>
Sent: Monday, June 17, 2019 3:35 PM
To: Matt Moyneur <mmoyneur@wallace-kuhl.com>
Cc: Jennifer Melman <melman@coastlandcivil.com>
Subject: Hidden Valley Lake - Emergency Generator Project

Matt,

As we discussed on the phone moments ago, I am seeking a quick-turnaround cost estimate for geotechnical design and construction services needed for a project in Hidden Valley Lake, CA. Part of the project scope that will require WK's support includes demolition of an existing wooden framed building and construction of a replacement CMU block building which will house an emergency

generator at the Unit 9 site, and grading/construction of a new small retaining wall at the Greenridge booster pump station site to place an emergency generator. I've attached preliminary plans of both sites for your reference. The Unit 9 site is located at 38°49'27.84"N 122°33'50.43"W and the Greenridge site is located at 38°49'1.68"N 122°33'46.11"W.

I envision your scope of work will include the following items below:

1. Conduct a site visit at Unit 9 to review physical conditions, identify potential trenching locations and overall grading requirements. Inform US Alert subscribers to verify location of existing underground utilities prior to field investigation.
2. Soil borings and sampling at the Unit 9 site and followup laboratory testing needed for preparing geotechnical recommendations.
3. Preparation of a geotechnical report including a site map showing the location of borings, boring logs, a summary of lab test results, findings and conclusions, and recommendations for:
 - a) Site clearing, grading, excavation, subgrade, paving, etc. requirements
 - b) Foundation (footing/slab) design
 - c) Bearing capacity/settlement potential
 - d) Utility trench backfill and utility installation
 - e) Corrosion Potential
4. Provide peer plan review of small retaining wall design at the Greenridge site.
5. Perform geotechnical field testing onsite during construction at the Unit 9 site including the following:
 - a) Compaction Testing (I assume a total of 6 compaction tests should be adequate for overall grading/earthwork/trenching activities onsite at Unit 9). I assume testing would occur over 3 days.
 - b) Concrete Testing (Assume sampling of footing concrete, slab concrete, CMU grout and CMU mortar are required)

As I indicated on the phone, please send me your scope, budget by EOD tomorrow via email or pdf letter.

Thanks Matt,

Jason Coleman, PE
Supervising Engineer
Luhdorff & Scalmanini, Consulting Engineers
500 First Street
Woodland, CA 95695
Office (530) 661-0109
Direct (530) 207-5711

jcoleman@lsce.com

www.lsce.com



Hidden Valley Lake Community Services District

Water System Storage Reliability Project

Cost Estimate Narrative

The estimated design and construction costs described herein are based upon 28 years of Coastland Engineering's design and construction management experience. Below is a description of each task and the basis for estimating its cost.

PRE-AWARD DESIGN TASKS

(Refer to Work Estimate: Estimate for Design and Construction Management Services)

Site Visit. A Coastland Senior Engineer met onsite with a District representative to discuss the project and review site conditions. It takes about 1 hour of travel time each way for the Engineer to reach the site. The total meeting time was 2 travel hours and 2 meeting hours. Coastland Senior Engineer hourly rates for this project are \$150/hr. See the Cost Estimate Narrative Document (CEN) #1 in the Budget Section of the binder.

Attend HGMP Training. A Coastland Senior Engineer attended HMGP training in order to better understand the application process. The training was 8 hours in length.

Survey. A topographic ground survey was conducted of the tank site. The proposal from the survey firm Cinquini & Passarino was \$2,730. See CEN #2 for the survey proposal.

Environmental Compliance Investigations. Environmental planners conducted biological and cultural investigations and/or site surveys to identify any circumstances that warrant special protection and may impact the use of the site. The proposal from the environmental firm, WRA, is attached as CEN #3. The Pre-Award Environmental tasks are shown as Phase I.

Prepare Engineering Calculations. Coastland Engineers reviewed the 2001 Hidden Valley Lake CSD Water Master Plan Update and updated the calculations therein to determine that the appropriate capacity of the replacement tank(s). Other work conducted in this task was (1) reviewing available plans and other documentation related to the water system and tank and (2) researching steel tank specifications and costs. Coastland Engineering estimated 8 hours of Senior Civil Engineering time and 8 hours of Junior Engineering time for this work.

Preliminary Design. The preliminary design consisted of preparation of a title sheet showing a vicinity map and sheet index; a legend and abbreviations sheet; a project area plan showing property dimensions, staging areas on an aerial background, and a proposed lot line adjustment; two site plans showing the construction of two tanks; sections; and a defensible space plan. Preparation of the preliminary plan set was estimated to take 10 hours of Senior Engineering time, 50 hours of CAD designer time, 2 hours of Construction Manager review time, and 1 hour of Principal Engineer review time. See CEN #1 for Coastland Engineering hourly rates.

Prepare Scope of Work, Cost Estimates and Schedule. For Coastland Engineering to prepare a scope of work, cost estimates and schedules, Coastland Engineers estimated 8 hours of Senior Civil Engineer time, 8 hours of Junior Engineer time, and 1 hour of Principal Engineer review time. See CEN #1 for Coastland Engineering hourly rates.

Prepare Benefit-Cost Analysis. A BCA analysis was conducted in order to demonstrate a benefit-cost ratio greater than one. Coastland Engineers provided justifications and data as required for all assumptions. Coastland Engineers estimated 8 hours of Senior Engineer time to complete this task. See CEN #1 for Coastland Engineering hourly rates.

Prepare Sub-Application. The FEMA sub-application was prepared, including project documentation as required. Coastland Engineers estimated 8 hours of Senior Engineer time, 5 hours of Junior Engineer time, a 1 hour of Principal Engineer time. See CEN #1 for Coastland Engineering hourly rates.

POST-AWARD DESIGN TASKS

Kick-off Meeting. A kick-off meeting will be conducted post-award to review the scope and discuss details of tank operation and control, environmental constraints, and other issues that will shape the final design. For this meeting, a Principal Engineer, Senior Engineer and CAD Designer will travel to the tank site (2 hours total) and attend a 2-hour meeting.

Progress Design Review Meetings. Two other progress design meetings via conference call (1.5 hours each) will be attended by the Principal Engineer and Senior Engineer following District review of progress submittals. An additional 3 hours of Senior Engineer time will be needed to coordinate these meetings and prepare agenda and meeting minutes.

Prepare Environmental Permits. The environmental planning firm, WRA, will provide documentation and prepare permits that are necessary for the proposed project. The proposal for the Post-Award Environmental tasks are shown as Phase 2 in the proposal attached as CEN #3.

Geotechnical Investigation. A geotechnical investigation will be conducted to provide design guidance for the tank foundation, retaining walls, pavement design, and site grading. The geotechnical scope will include borings, soil analyses, and preparation of a report. Coastland Engineers estimates that the geotechnical work will require 6 hours of Principal Engineering time, 20 hours of Senior Engineer time, and 25 hours of Project Geologist. A proposal for a similar scope of work, by RGH Geotechnical Engineers, is attached as Cen #4.

Lot-Line Adjustment. A 0.72-acre lot-line adjustment is necessary to fit both tanks and their 100-foot defensible corridor within the tank site. This task will require obtaining title reports (\$1,000) and paying County fees (up to \$2,900), preparing a grant deed and legal description, coordination with the property owners, the HVL Community Services District and the HVL Homeowner's Association and filing the necessary documents with the County of Lake. Coastland estimates that it will take 23 hours of effort by Coastland Engineers to prepare the grant deed and legal descriptions and coordinate with the property owners.

Prepare Bid Documents. Coastland Engineering will prepare bid documents, including plans and specifications, for the proposed project. The plan set will include:

- A demolition plan that shows the limits of removal for the existing fencing, tank, trees, piping and appurtenances to be removed;
- A grading and drainage plan that shows the location of retaining walls, if necessary, the expanded pad, and drainage features that will convey stormwater to existing drainage channels;
- A site plan that shows the extent of paving for a new access road around the tanks and the location of new fencing;
- A vegetation maintenance plan that shows the extent of vegetation clearing and pruning for maintaining the defensible space around the tank;
- A retaining wall and foundation plan that shows a reinforced-concrete ring foundation for the tank, and the retaining walls;
- A tank and piping plan that shows the new tank and appurtenances, and new piping connections to the existing water mains;
- Electrical plans showing tank controls and telemetry; and
- Additional sheets that show structural details for the retaining walls and foundation, sections, details for fencing, piping, and tank appurtenances.

Coastland Engineering will also prepare written instructions for the work, or specifications, that, together with the plan set, comprise bid documents that are suitable for public works bid. Coastland will provide a 60%, 95% and Final submittal. Each submittal will incorporate the District's previous review comments. Coastland estimates a total of 436 hours of time for engineers and CAD designers to complete this task.

Also included is 69 hours of electrical engineering time, to be conducted by Sonoma Electrical Engineering, to design and prepare plans and specifications for tank electrical operations and control. The Sonoma Electrical Engineering hourly estimate was taken from a similar and recent tank project. Sonoma Electrical's Schedule of Hourly Rates are included as CEN #5.

Contract Bid and Award. The project will be advertised, put out to public bid and awarded to the lowest bidder. Coastland Engineers will prepare any necessary addenda and respond to requests for information from contractors, provide assistance to the District as needed during the advertising process, attend the bid opening, and analyze the bids to ensure that they meet the bid requirements.

These tasks are estimated to take a total of 25 hours of time. The bid opening will be attended by a Principal Engineer and a Senior Engineer and includes 2 hours of travel time.

Construction Management and Inspection. Construction management and inspection occurs during the construction phase, but it is normally estimated as a percentage of the construction's total cost. For this project, we estimated that 13% of the total construction cost would be needed to complete this task. Construction Manager hours bill out at \$190/hour and Inspectors have an hourly rate of \$160/hr.

CONSTRUCTION TASKS

Coastland Engineering provides municipal engineering services to cities throughout the North Bay. Part of our services are to prepare bid packages and oversee the award of contracts for public works construction. This role allows us to have a constant supply of current Contractor pricing for various construction tasks obtained from the bid tabs of work we oversee. We compile this pricing information and use it as a basis for estimating construction costs. We also get quotes directly from suppliers and manufacturer's for specific costs, as needed.

Mobilization includes obtaining permits, installing environmental protections, moving equipment and materials to the site, hiring subcontractors, ordering materials, preparing submittals, and conducting project administration. This task also includes the work to demobilize from the site, and closing out the project and grant. The construction estimate for mobilization is normally estimated as a percentage of the total construction cost, and in this case, was estimated as 5%. The basis for this estimate is from the review of bid tabs for similar projects.

Remove Trees and Grind Roots will involve removing 23 trees from the project area. The cost of \$1,620/tree is based on bid tab review.

Clearing and Grubbing/Vegetation Management involves removing vegetation, rock, and organic soils within the 0.75-acre of excavated area as well as conducting weed abatement and pruning trees within the 100 foot-radius defensible corridor around each tank. Clearing and grubbing and vegetation management was estimated to be \$9,000/acre based on similar tasks of other projects.

Demolish Security Fence involves the removal of 344 linear feet of fencing (lf). The estimated cost of \$13.50/lf is based on the average of bid tab information from multiple projects.

Site Excavation involves excavating 3,136 cubic yards (cy) of soil, building a road embankment, and off-hauling 2,690 cy of soil 5 miles to the HVL wastewater treatment plant. An excavator will be used to excavate the soil directly into 10-wheeler dump trucks. The off-hauling of soil will take approximately 280 trips. Mass grading will occur for both tank sites simultaneously. The Tank 9B site will be used as a staging area during the construction of Tank 9A. The cut and fill quantities, as obtained by Civil 3D, are attached as CEN#7. The cost of \$47.25/cy is based on the average of bid tab information from multiple projects.

Drainage includes the installation of 190 of 12" storm drain piping and 2 drop inlets. The costs for installing drop inlets and piping is based on the average of bid tab information from multiple projects.

Security Fencing. Approximately 670 feet of 8' tall security fencing will be constructed at the property boundaries to protect the site. A 15 feet-wide gate will be installed at the access road.

Water Main Piping. Water main piping modifications will be constructed but no connections will be made at this time. Buried water main will match the existing 8-inch C900 PVC pipe and will be buried with 40 inches of cover. Trench excavation will be conducted using an excavator. Some piping will be removed out of the footprint of the new tanks. Exposed water main or drain piping will be ductile iron. Overflow drains will also be constructed (once the tanks are built). This task also includes connecting the

new water pipe to the existing water main (once the tanks are built). Unit costs for water main pipe and valves are based the average of bid tab data from similarly sized projects.

Concrete Retaining Walls and Tank 9A Foundation. Retaining walls for both Tank 9A and 9B will be constructed simultaneously. Tank 9A's retaining wall will be 140 feet long with heights ranging from 1 to 5 feet high. Tank 9B's retaining wall will be 130 feet long with heights ranging from 1 to 10 feet high. A reinforced concrete ring foundation will be poured for Tank 9A. Detailed wall design has not been completed at this time. Wall thicknesses of 10 inches were assumed as well as spread footing dimensions. The ring foundation has not yet been designed, but the assumed dimensions were taken from another tank project of similar size. This task also includes the construction of 565 lf of valley gutter at the base of the retaining walls. The unit cost for construction of reinforced concrete used is \$2,700/cy.

Tank 9A Construction and Testing. Tank 9A will be assembled from pre-coated steel panels onsite. After assembly, the tank coating will be spot-repaired as necessary. Appurtenances will be added such as caged ladders, manways, drains with vortex breaker, vents and overflow pipes. The tank will be tested for leaks. Coastland obtained a quote to furnish to the site and install the proposed bolted steel tanks from Superior Tanks. The quote is included as CEN#6.

Tank 9A Tie-in to Water System. The tank and water piping will be disinfected prior to making the connection to the existing water main piping. After the tie-in, Tank 9A will be in service. The costs for water pipe tie-in is included in the water main piping costs.

Demolish Existing Tank. Once Tank 9A is in service, the existing 150,000-gallon redwood tank and foundation will be demolished using an excavator and removed from the site in 10-wheeler dump trucks. The cost of demolition and removal is based on the judgment of our construction management team.

Water Main Piping to Tank 9B. Water main piping will be extended from the existing water main to Tank 9B (no connections will be made at this time). Buried water main will match the existing 8-inch C900 PVC pipe and will be buried with 40 inches of cover. Trench excavation will be conducted using an excavator. Some piping will be removed out of the footprint of the new tanks. Exposed water main or drain piping will be ductile iron. Overflow drains will also be constructed (once the tanks are built). This task also includes connecting the new water pipe to the existing water main (once the tanks are built). Unit costs for water main pipe and valves are based the average of bid tab data from similarly sized projects.

Tank 9B Foundation. A reinforced concrete ring foundation will be poured for Tank 9B. The ring foundation has not yet been designed, but the assumed dimensions were taken from another tank project of similar size. The unit cost for construction of reinforced concrete used is \$2,700/cy.

Tank 9B Construction and Testing. Tank 9B will be assembled from pre-coated steel panels onsite. After assembly, the tank coating will be spot-repaired as necessary. Appurtenances will be added such as caged ladders, manways, drains with vortex breaker, vents and overflow pipes. The tank will be tested for leaks. Coastland obtained a quote to furnish to the site and install the proposed bolted steel tanks from Superior Tanks. The quote is included as CEN#6.

Tank 9B Tie-in to Water System. The tank and water piping will be disinfected prior to making the connection to the existing water main piping. After the tie-in, Tank 9B will be in service. The costs for water pipe tie-in is included in the water main piping costs.

Paving. The 15-foot wide access road will be paved with 3 inches of asphalt concrete over 6 inches of aggregate base. The costs for installing the access road is based on bid tab data for similarly-sized projects.

Demobilization. Demobilization includes final inspection, completion of the final punch-list tasks, and the removal of equipment and supplies from the site. The costs of demobilization are included in the costs of mobilization as described above.

Project Close-out and Record Drawings. This task involves completion of project paperwork and records, as well as preparing as-built drawings. The costs of project close-out and record drawings are included in the costs of mobilization as described above.

Grant Close-out. Grant close out involves completing the paperwork and inspections required to complete the project to the satisfaction of FEMA and CalOES. The costs of grant close-out are included in the costs of mobilization as described above.

May 31st, 2019
File No. 19-065

John Wanger, P.E. Principal
Coastland Civil Engineering Inc.
1400 Neotomas Avenue
Santa Rosa, CA 95405

**SUBJECT: Proposal to Provide Engineering Services for
Hidden Valley Lake Community Services District
Emergency Generator Project**

Dear Mr. Wanger:

In response to your request, Luhdorff and Scalmanini Consulting Engineers, Inc. (LSCE) is pleased to submit this proposal to provide engineering services related to the emergency generator project and associated grant application for The Hidden Valley Lake Community Services District (CSD) located in Hidden Valley Lake, California.

The proposed scope of work primarily consists of providing structural, civil, and electrical/SCADA engineering support to Coastland Civil Engineering towards development of a CalOES grant application to be prepared by Hidden Valley Lake CSD. The specific scope of work includes field site visits to each of the proposed sites to be improved, general evaluation of SCADA replacement/modification alternatives, review and assistance with development of conceptual/preliminary engineering drawings for the proposed improvements, evaluation and sizing of 4 emergency generators, development of preliminary engineering cost estimates for the design and construction of the proposed improvements, and a schedule for the design and construction work.

BACKGROUND

LSCE understands that the Pacific Gas and Electric Company (PG&E) has notified the Hidden Valley Lake CSD of its Public Safety Power Shutoff Policy which authorizes PG&E to shut down electrical power service due to extreme weather and wildfire danger. According to Coastland, without power from the grid, the CSD does not own enough portable emergency generators to operate its wells and three booster pump stations, which are critical water supply facilities and necessary for maintaining sufficient water pressure and capacity to fight a wildfire.

Coastland has indicated that the District is preparing a subapplication to CalOES through FEMA's Hazard Mitigation Grant Program (HMGP) to fund the detailed design and construction of four permanent emergency/standby diesel-fueled generators, three noise-attenuation buildings, associated security and access improvements, and electrical, SCADA, and other site improvements which would serve to power the District's water supply system during power outages. Furthermore, LSCE understands in June of 2017, Coastland prepared a conceptual scale engineer's estimate of design and construction costs for this project, which the CSD used in their Notice of Intent submittal for the HMGP application. Coastland

has also already performed preliminary generator sizing for 3 of the 4 identified sites. The project elements identified in Coastland's effort comprise the current scope of work, with the addition of a new buildings at 3 of the 4 CSD sites to house the proposed emergency standby generators and SCADA improvements to allow notifications to the water plant when the generators are operating.

SCOPE OF WORK

LSCE's project approach is integrated into the three main tasks discussed below. Each task description provides the key activities on which cost estimating is based. Budgets for each task are summarized in the Fee Estimate below. We anticipate that regular interaction with Coastland Civil Engineering and Hidden Valley Lake CSD will occur via phone and e-mail to facilitate the work.

Task 1 - Review Existing Information and Perform Site Evaluation

Under Task 1, LSCE will conduct a site visit with Coastland Civil Engineering and Hidden Valley Lake CSD representatives to verify site conditions, inspect existing infrastructure present, and identify design criteria and constraints of the existing and proposed facilities. LSCE plans to attend the site visit with Frisch Engineering, LSCE's electrical engineering subconsultant. The site visit will also for collection of field notes and measurements which will be needed to develop preliminary drawings (Task 2). Note LSCE assumes Coastland will prepare the preliminary design drawings for LSCE's review and markups. Locations for proposed building, generator and other site improvements will also be verified by LSCE/Coastland. This task also includes coordination with CSD Representatives during preparation of the HMGP subapplication.

Key Activities:

- Review existing site plan drawings and files provided by CSD and Coastland
- Perform site visit (1 LSCE representative, 1 Frisch Engineering representative)

Deliverables:

- None (information will be presented in tasks below)

Task 2 - Prepare Preliminary Design Drawings

After the site visit has been completed LSCE will assist Coastland with development of the preliminary design drawings. The proposed preliminary drawings will be prepared by Coastland however LSCE will provide peer review and drawing changes/markups to Coastland for drafting changes.

LSCE will indicate the recommended sizes and locations of the proposed buildings as required to house and maintain the appropriately sized generator for 3 of the 4 sites. LSCE assumes Coastland's preliminary drawings will include building and generator footprint dimensions and preliminary building design and elevations identifying major building features. SCADA or electrical improvements will not be included in the preliminary drawings. A "draft" drawing set will be prepared by Coastland for CSD review, followed by a "final" drawing set with comments/changes addressed as requested or needed by the CSD.

LSCE will also work with Frisch Engineering to perform a detailed review the existing XiO SCADA improvements proposal provided to the CSD. Following the review and site visit, LSCE/Frisch will reach out to Coastland and Hidden Valley Lake CSD to discuss evaluation of the XiO proposal, and present other options and alternatives to improve or replace the SCADA system for the CSD's consideration.

Key Activities:

- *Review and confirm generator sizing for all 4 project sites*
- *Review and evaluate existing SCADA system by Frisch Engineering, communicate SCADA improvement options to Coastland and Hidden Valley Lake CSD*

Deliverables:

- *Provide review comments for a “draft” and “final” set of preliminary design drawings prepared by Coastland.*

Task 3 – Prepare Cost Estimates and Project Schedule

Under Task 3, LSCE and Coastland will develop cost estimates for the detailed design and construction of the proposed improvements. LSCE understands that FEMA does not allow lump sum, miscellaneous or contingency costs, therefore unit costs will be conservatively estimated to account for project unknowns/uncertainties during design and construction. Unit costs will be rounded to the nearest dollar. LSCE will be responsible for estimating the engineering and construction costs associated with SCADA improvements, building, generator and electrical/switchgear/conduit improvements. LSCE understands Coastland will develop cost estimates for all other aspects of the project including site improvements, demolition, grading, fencing, paving, etc. LSCE and Coastland cost estimates will be consolidated into the final design/construction estimate submitted to the CSD.

LSCE will also assist Coastland with development of an overall project schedule to complete the project improvements. The schedule will be in Gantt-chart format and will demonstrate completion of the design and construction within 3 years, as required by the grant.

Key Activities:

- *Develop cost estimates for design and construction of the project.*
- *Develop preliminary project schedule for design and construction phases of the project.*

Deliverables:

- *Provide SCADA, electrical, building, generator, design and construction costs*
- *Provide project duration estimates for design and construction of SCADA, electrical, building, generator, design and construction costs*

PROJECT SCHEDULE

LSCE recognizes the need to start this project immediately and is prepared to commence work upon approval. LSCE understands that the critical schedule milestones are the Notice to Proceed to be issued on June 5th, completion of the draft preliminary drawings by June 19th and submittal of the final preliminary drawings by June 26th. The HMGP subapplication must be submitted by the Hidden Valley Lake CSD no later than July 3, 2019.

LSCE’s key team members have all completed similar projects and have the specific experience and knowledge to efficiently complete these tasks. Based upon current workloads and the schedules for ongoing projects, we propose to complete the above task items within the timeframes identified above after receiving an authorization to proceed.

FEE ESTIMATE

Our estimate of costs for engineering and field services for the proposed project is encompassed in the table presented below and a detailed cost estimate is provided in Attachment A. The tasks were selected based upon the Scope of Work outlined above. Cost estimates are presented by task and are considered suitable for planning and budgeting purposes.

Task	Description	Total
1	Review Existing Information and Perform Site Evaluation	\$3,452
2	Prepare Preliminary Design Drawings	\$2,580
3	Prepare Cost Estimates and Project Schedule	\$4,340
Total (w/ Optional Task)		\$10,372


The proposed project sum presented includes LSCE's labor under each task, as delineated in this proposal, and is a not-to-exceed budget for the scope items and assumptions discussed above. LSCE will bill monthly for labor and materials, only as incurred, in accordance with LSCE's Schedule of Fees for Engineering and Field services (Attachment B).

In the event that LSCE is directed to deviate from the proposed scope, or as dictated by unforeseen field conditions, LSCE will provide notification of any potential changes in the estimated cost and time to complete the work. LSCE will not proceed with any work that deviates from the approved scope and budget until approval to proceed is granted.

We appreciate the opportunity to provide you with this scope and budget. If you have any questions or need additional information, we would be pleased to respond.

Sincerely,

LUHDORFF AND SCALMANINI
CONSULTING ENGINEERS, INC.



Jason Coleman, P.E.
Supervising Engineer

Attachment A: Project Cost Estimate Worksheet

Attachment B: Schedule of Fees for Engineering and Field Services (January 2019)

Client: Coastland Engineering
 Project: Hidden Valley Lake CSD - Emergency Generator Project
 Estimated By: Coleman
 Date: 31 May 2019

PROJECT COST ESTIMATE



Task	Billing Level	LSCE			LSCE Subtotals	SUB CONSULTANTS		DIRECT EXPENSES		Direct Expenses Subtotals	Totals
		Supervising Professional	Staff Professional	ACAD Drafting		Frisch Engineering (Electrical)	Sub-Consultant Subtotals	Travel	Copies / Reproduction		
		Billing Rate (\$/Hr)	\$200	\$140		\$130	Lump	Lump	Lump		
TASK 1 - Review Existing information and Perform Site Survey	LSCE (hours)	8	0	0							
	LSCE (cost)	\$1,600	\$0	\$0							\$1,600
	Sub-Consultant (cost)					\$1,702					\$1,702
	Direct Expenses (cost)							\$150	\$0		\$150
	Subtotals (cost)	---	---	---	\$1,600	---	\$1,702	---	---	\$150	\$3,452
TASK 2 - Prepare Preliminary Design Drawings	LSCE (hours)	6	0	0							
	LSCE (cost)	\$1,200	\$0	\$0							\$1,200
	Sub-Consultant (cost)					\$1,380					\$1,380
	Direct Expenses (cost)							\$0	\$0		\$0
	Subtotals (cost)	---	---	---	\$1,200	---	\$1,380	---	---	\$0	\$2,580
TASK 3 - Prepare Cost Estimates and Project Schedule	LSCE (hours)	6	6	0							
	LSCE (cost)	\$1,200	\$840	\$0							\$2,040
	Sub-Consultant (cost)					\$2,300					\$2,300
	Direct Expenses (cost)							\$0	\$0		\$0
	Subtotals (cost)	---	---	---	\$2,040	---	\$2,300	---	---	\$0	\$4,340
	Total LSCE Hours	20	6	0	26						
	Total LSCE Cost	\$4,000	\$840	\$0	\$4,840						\$4,840
	Total Sub-Consultant Cost					\$5,382	\$5,382				\$5,382
	Total Direct Expenses Cost							\$150	\$0	\$150	\$150
										TOTAL COST	\$10,372



Luhdorff & Scalmanini
Consulting Engineers

500 FIRST STREET WOODLAND, CALIFORNIA 95695

SCHEDULE OF FEES - ENGINEERING AND FIELD SERVICES
2019

Professional:*

<i>Senior Principal</i>	\$215/hr.
<i>Principal Professional</i>	\$210/hr.
<i>Supervising Professional</i>	\$200/hr.
<i>Senior Professional</i>	\$187/hr.
<i>Project Professional</i>	\$145 to 170/hr.
<i>Staff Professional</i>	\$130 to 140/hr.

Technical:

<i>Engineering Inspector</i>	\$130/hr.
<i>ACAD Drafting/GIS</i>	\$130/hr.
<i>Engineering Assistant</i>	\$100 to 120/hr.
<i>Scientist</i>	\$100 to 120/hr.
<i>Technician</i>	\$100 to 120/hr.

Clerical Support:

<i>Word Processing, Clerical</i>	\$75/hr.
<i>Digital Communications Specialist</i>	\$90/hr.
<i>Project Admin/Accounting Assistant</i>	\$90/hr.

<i>Vehicle Use</i>	\$0.58/mi.
<i>Subsistence</i>	Cost Plus 15%
<i>Groundwater Sampling Equipment (Includes Operator)</i>	\$170.00/hr.
<i>Copies</i>	.20 ea.

<i>Professional or Technical Testimony</i>	200% of Regular Rates
<i>Technical Overtime (if required)</i>	150% of Regular Rates
<i>Outside Services/Rentals</i>	Cost Plus 15%
<i>Services by Associate Firms</i>	Cost Plus 15%

* Engineer, Geologist, Hydrogeologist, and Hydrologist

HIDDEN VALLEY LAKE CSD

36109

2961 BODEAN COMPANY

036109 01/18/2019

DATE	I.D.	PO #	DESCRIPTION	AMOUNT
12/19/2018	420975		20.33 TONS BASE	260.59
12/19/2018	421018		19.65 TON BASE	251.87
12/19/2018	421061		20.05 TON BASE	257.00
12/19/2018	421104		21.21 TON BASE	271.87

CHECK TOTAL 1,041.33

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER AND ORIGINAL DOCUMENT SECURITY WAS GREEN AND A FEDERAL WATER MARK ON THE BACK WITH PADLOCK SECURITY LOGO.



HIDDEN VALLEY LAKE CSD
 19400 HARTMANN ROAD
 HIDDEN VALLEY LAKE, CA 95467
 707-987-9201

WestAmerica Bank
 21058 Callistoga Road
 P.O. Box 1280
 Middletown, CA 95461
 90-4021/1211

DATE **36109**
 01/18/2019
 AMOUNT
 1,041.33

\$

----- ONE THOUSAND FORTY ONE & 33/100 DOLLARS

PAY
 TO THE ORDER OF
 BODEAN COMPANY
 1060 N. DUTTON AVENUE
 SANTA ROSA, CA 95401

Judith M. ...
 AUTHORIZED SIGNATURE

⑈036109⑈ ⑆121140218⑆ 0537200578⑈

HIDDEN VALLEY LAKE CSD

36109



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

WEIGHMASTER CERTIFICATE
 THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

420975 **TICKET NO**

REPRINT

MW

Suppliers of Quality of Aggregates & Asphalt

DATE	TIME	CUSTOMER	PRODUCT	HAULER	TRUCK	TAX	LOCATION
12/19/2018	7:20:02AM	CASH	21	KADON	KD26	02	1

BILL TO: Cash Sales
 , CA
 P.O. CK 6108
 Order No: 1CHECK
 Loads Today: 1
 Qty. Today: 0.00

QTY	UNIT	PRODUCT	PRICE	AMOUNT
20.33	Ton	3/4" CLII AB	11.75	238.88
		FREIGHT	0.00	0.00
		TAX	8.1250	19.41
	A	FEES	0.1130	2.30
		TOTAL DUE		260.59

Warning: Asphalt, sand, diesel engine exhaust and other materials at this facility contain chemicals known to the State of California to cause cancer and/or reproductive harm. Exposure to some or all of these chemicals occurs during paving operations and related activities. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

	Pounds	Tons
GROSS:	67080	33.54
TARE:	26420 *	13.21 *
NET:	40660	20.33

DELIVER TO Smith Construction & General Engineering
 18896 Grange Road, Middletown
 Type Check # below:

DEPUTY Michael Hammerich Check if Driver in Truck
 Driver Signature: _____

* P. T.

Fee Code "A" = Sonoma County Road Mitigation Fee



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

12/19/2018
 7:20:02AM

REPRINT

420975

Location: 1 **MARK WEST PLANT**
 Customer: CASH Cash Sales
 Order: 1CHECK
 Smith Construction & General Engine
 18896 Grange Road, Middletown
 P.O.: CK 6108
 Product: 21 3/4" CLII AB

	Pounds	Tons	Metric
Gross	67080	33.54	30.43
Tare	26420 *	13.21 *	11.98 *
Net	40660	20.33	18.44

* P. T.

20.33 Ton

Ordered:	0.00
Received:	10685.35
Remaining:	-10685.35
Today:	0.00 Loads: 1

Carrier: KADON Kadon Trucking
 Vehicle: KD26 KD26 White Super Dump

Received: _____ Weighmaster: Michael Hammerich

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Date Paid 01/18/2019
 Vendor Amount \$ 260.59
 Fund 120 500 5150 130.29
 Fund 120 500 5150 130.30
 Approved by MR - TW - K.C.



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
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421018 TICKET NO.

MW

Suppliers of Quality of Aggregates & Asphalt

DATE	TIME	CUSTOMER	PRODUCT	HAULER	TRUCK	TAX	LOCATION
12/19/2018	9:20:23AM	CASH	21	KADON	KD26	02	1

BILL TO: Cash Sales
 , CA
 P.O. CK 6108
 Order No: 1CHECK
 Loads Today: 2
 Qty. Today: 39.98

QTY	UNIT	PRODUCT	PRICE	AMOUNT
19.65	Ton	3/4" CLII AB	11.75	230.89
		FREIGHT	0.00	0.00
		TAX	8.1250	18.76
	A	FEES	0.1130	2.22
		TOTAL DUE		251.87

Warning: Asphalt, sand, diesel engine exhaust and other materials at this facility contain chemicals known to the State of California to cause cancer and reproductive harm. Exposure to some or all of these chemicals occurs during paving operations and related activities. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

	Pounds	Tons
GROSS:	65720	32.86
TARE:	26420 *	13.21 *
NET:	39300	19.65

DELIVER TO: Smith Construction & General Engineering
 18896 Grange Road, Middletown
 Type Check # below:
 DEPUTY: Michael Hammerich
 Check if Driver in Truck
 Driver Signature: _____

* P. T.

Fee Code "A" = Sonoma County Road Mitigation Fee



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

12/19/2018

9:20:23AM

421018

Location: **1 MARK WEST PLANT**
 Customer: CASH Cash Sales
 Order: 1CHECK
 Smith Construction & General Engineering
 18896 Grange Road, Middletown
 P.O.: CK 6108
 Product: 21 3/4" CLII AB

	Pounds	Tons	Metric
Gross	65720	32.86	29.81
Tare	26420 *	13.21*	11.98 *
Net	39300	19.65	17.83

* P. T.

19.65 Ton

Ordered:	0.00
Received:	10705.00
Remaining:	-10705.00
Today:	39.98 Loads: 2

Carrier: KADON Kadon Trucking
 Vehicle: KD26 KD26 White Super Dump

Received: _____ Weighmaster: Michael Hammerich

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Date Paid 01/18/2019
 Amount \$ 251.87
 Fund 120 -500 -5750 -125.93
 Fund 130 -500 -5750 -125.94
 Approved by MK

Vendor 2961



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

WEIGHMASTER CERTIFICATE
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421061 TICKET NO

MW

Suppliers of Quality of Aggregates & Asphalt

DATE	TIME	CUSTOMER	PRODUCT	HAULER	TRUCK	TAX	LOCATION
12/19/2018	11:14:42AM	CASH	21	KADON	KD26	02	1

BILL TO: Cash Sales
 , CA
 P.O. CK 6108
 Order No: 1CHECK
 Loads Today: 3
 Qty. Today: 60.03

QTY	UNIT	PRODUCT	PRICE	AMOUNT
20.05	Ton	3/4" CLII AB	11.75	235.59
		FREIGHT	0.00	0.00
		TAX	8.1250	19.14
	A	FEES	0.1130	2.27
		TOTAL DUE		257.00

Warning: Asphalt, sand, diesel engine exhaust and other materials at this facility contain chemicals known to the State of California to cause cancer and reproductive harm. Exposure to some or all of these chemicals occurs during paving operations and related activities. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

	Pounds	Tons
GROSS:	66520	33.26
TARE:	26420 *	13.21 *
NET:	40100	20.05

DELIVER TO: Smith Construction & General Engineering
 18896 Grange Road, Middletown
 Type Check # below:
DEPUTY: Michael Hammerich Check if Driver in Truck
 Driver Signature: _____

* P. T.

Fee Code "A" = Sonoma County Road Mitigation Fee



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 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

12/19/2018
 11:14:42AM
421061

Location: **1 MARK WEST PLANT**
 Customer: CASH Cash Sales
 Order: 1CHECK
 Smith Construction & General Engineering
 18896 Grange Road, Middletown
 P.O.: CK 6108
 Product: 21 3/4" CLII AB

	Pounds	Tons	Metric
Gross	66520	33.26	30.17
Tare	26420 *	13.21*	11.98 *
Net	40100	20.05	18.19

* P. T.

20.05 Ton

Ordered:	0.00
Received:	10725.05
Remaining:	-10725.05
Today:	60.03 Loads: 3

Carrier: KADON Kadon Trucking
 Vehicle: KD26 KD26 White Super Dump

Received: _____ Weighmaster: Michael Hammerich

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Date Paid 01/18/2019
 Amount \$ 257.00
 Fund 120 - 500 - 5150 - 128.50
 Fund 130 - 500 - 5150 - 128.50
 Approved by MK

Vendor 2961



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

WEIGHMASTER CERTIFICATE
 THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

421104 TICKET NO.

MW

Suppliers of Quality of Aggregates & Asphalt

DATE	TIME	CUSTOMER	PRODUCT	HAULER	TRUCK	TAX	LOCATION
12/19/2018	1:04:31PM	CASH	21	KADON	KD26	02	1

BILL TO: Cash Sales
 , CA
 P.O. CK 6108
 Order No: 1CHECK
 Loads Today: 4
 Qty. Today: 81.24

QTY	UNIT	PRODUCT	PRICE	AMOUNT
21.21	Ton	3/4" CLII AB	11.75	249.22
		FREIGHT	0.00	0.00
		TAX	8.1250	20.25
	A	FEES	0.1130	2.40
		TOTAL DUE		271.87

Warning: Asphalt, sand, diesel engine exhaust and other materials at this facility contain chemicals known to the State of California to cause cancer and reproductive harm. Exposure to some or all of these chemicals occurs during paving operations and related activities. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

	Pounds	Tons
GROSS:	68840	34.42
TARE:	26420 *	13.21 *
NET:	42420	21.21

DELIVER TO: Smith Construction & General Engineering
 18896 Grange Road, Middletown
 Type Check # below:
 DEPUTY: Michael Hammerich
 Check if Driver in Truck
 Driver Signature: _____

* P. T.

Fee Code "A" = Sonoma County Road Mitigation Fee



Loc# 1: 4611 Porter Creek Rd., Santa Rosa, CA 95404
 Loc# 2: 7888 Hwy 116, Forestville, CA 95436
 Loc# 3: 1060 Maxwell Dr., Santa Rosa, CA 95401
 Office: 1060 N Dutton Ave., Santa Rosa, CA 95401
 (707) 576-8205 Phone (707) 576-8204 Fax

12/19/2018
 1:04:31PM
421104

Location: **1 MARK WEST PLANT**
 Customer: CASH Cash Sales
 Order: 1CHECK
 Smith Construction & General Engineering
 18896 Grange Road, Middletown
 P.O.: CK 6108
 Product: 21 3/4" CLII AB

	Pounds	Tons	Metric
Gross	68840	34.42	31.23
Tare	26420 *	13.21 *	11.98 *
Net	42420	21.21	19.24

* P. T.

21.21 Ton

Ordered:	0.00
Received:	10746.26
Remaining:	-10746.26
Today:	81.24 Loads: 4

Carrier: KADON Kadon Trucking
 Vehicle: KD26 KD26 White Super Dump

Received: _____ Weighmaster: Michael Hammerich

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture

Gate Paid 01/18/2019
 Amount \$ 271.87
 Fund 120 - 500 - 5150 - 13593
 Fund 130 - 500 - 5150 - 13594
 Approved by MR

Vendor 2961

SCALE TICKET INQUIRY

BEGIN DATE	12/19/2018	LOCATION	1	CARRIER	KADON
END DATE	12/19/2018			VEHICLE	KD26
SELL/BUY/TRANS	ALL				
SHIP/RECEIVE	ALL				

<u>Ticket</u>	<u>Loc</u>	<u>Date</u>	<u>Time</u>	<u>Customer</u>	<u>Order</u>	<u>Product</u>	<u>Carrier</u>	<u>Vehicle</u>	<u>Qty</u>	<u>Unit</u>	<u>Price</u>	
420975	1	12/19/2018	20:02AM	Cash Sales	1CHECK	3/4" CLII AB	Kadon Trucking	KD26	20.33	Ton	260.59	
421018	1	12/19/2018	20:23AM	Cash Sales	1CHECK	3/4" CLII AB	Kadon Trucking	KD26	19.65	Ton	251.87	
421061	1	12/19/2018	14:42AM	Cash Sales	1CHECK	3/4" CLII AB	Kadon Trucking	KD26	20.05	Ton	257.00	
421104	1	12/19/2018	04:31PM	Cash Sales	1CHECK	3/4" CLII AB	Kadon Trucking	KD26	21.21	Ton	271.87	
<hr/>												
Tickets	4									81.24		1,041.33

Motor Carrier
CA # 28595
D.O.T. 1327383



SHIPPING ORDER
and FREIGHT BILL

NO 187779

SU	M	T	W	TH	F	SA
Date <u>11/17/18</u>						
TRUCK NO. <u>1109</u>			TRAILER NO. <u>1109</u>			
CONTRACT CARRIER <u>1109</u>						

(707) 838-8008
Fax (707) 838-8009 • 1-800-72-KADON
Post Office Box 1619
Windsor, California 95492-1619

EQUIPMENT		# OF AXLES
<input type="checkbox"/> End Dump	<input type="checkbox"/> 10-Wheeler	4
<input type="checkbox"/> Bottom Dump	<input type="checkbox"/> Semi Bottom	
<input type="checkbox"/> Transfer	<input type="checkbox"/> Super Dump	

PRIME CARRIER <u>1109</u>	CONSIGNEE <u>1109</u>
CUSTOMER/SHIPPER <u>1109</u>	DESTINATION <u>1109</u>
POINT OF ORIGIN <u>1109</u>	CITY <u>1109</u>
CITY <u>1109</u>	JOB / P.O. NO.

NO.	SCALE TAG NO.	YARDS OR WEIGHT	LOADING		OFFICE USE ONLY NET STAND BY	UNLOADING		OFFICE USE ONLY NET STAND BY	TIME LEAVE - LOADING
			TIME ARRIVE	TIME LEAVE		TIME ARRIVE	TIME LEAVE		TIME ARRIVAL - UNLOADING
1	1109	19.73	6:54	7:20		8:11	8:26		1:06
2	1109	19.6	9:15	9:21		10:16	10:18		1:09
3	1109	10.05	11:09	11:15		12:10	12:12		5:11
4	1109	21.2	13:00	13:06		14:02	14:14		
5			15:01						
6									
7	120-130	5150							3 Bags
8									
9									
10									
11									
12									
13									
14									
									OFFICE USE ONLY
15									TOTAL HOURS OR TONS
16									RATE PER HOUR OR TON \$
17									SUB TOTAL \$
18									MATERIAL \$
19									SALES TAX \$
20									SURCHARGES \$
21									BRIDGE FARE \$
22									STAND-BY \$
23									TOTAL CHARGES \$

START <u>7:00</u>	STOP <u>15:00</u>	DEDUCT TIME <u>0</u>	NET TIME HRS. <u>8</u> MIN. <u>14</u>
DRIVER (PRINT) <u>1109</u>	EMP. # <u>1109</u>	RECEIVED BY <u>X</u>	

WE MAKE DELIVERIES INSIDE THE CURB LINE AND ON THE LOT AT THE CUSTOMER'S RISK ONLY AND ACCEPT NO RESPONSIBILITY FOR DAMAGES RESULTING FROM SUCH DELIVERIES.

ALL BILLS DUE AND PAYABLE BY THE 10TH OF THE MONTH. 1.5% PER MONTH IS CHARGED ON PAST DUE ACCOUNTS. THIS IS AN ANNUAL PERCENTAGE RATE OF 18%. CUSTOMERS WILL BE RESPONSIBLE FOR ALL COURT AND ATTORNEY COSTS FOR COLLECTION. THESE CHARGES INCLUDE (1) FEES TO PAY FOR REGULATION OF TRANSPORTATION COMPANIES AND (2) TAXES PAID TO CALIFORNIA CITIES INSTEAD OF EXCISE OR BUSINESS LICENSE TAXES OTHERWISE IMPOSED.

HIDDEN VALLEY LAKE CSD

35833

1479 CLEARLAKE LAVA, INC.

035833 10/05/2018

DATE	I.D.	PO #	DESCRIPTION	AMOUNT
09/23/2018	104478		PEA GRAVEL	682.52

CHECK TOTAL 682.52

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER AND ORIGINAL DOCUMENT SECURITY SCREEN AND ARTIFICIAL WATERMARK ON BACK WITH PADLOCK SECURITY ICON.



HIDDEN VALLEY LAKE CSD
 19400 HARTMANN ROAD
 HIDDEN VALLEY LAKE, CA 95467
 707-987-9201

WestAmerica Bank
 21058 Calistoga Road
 P.O. Box 1280
 Middletown, CA 95461
 90-4021/1211

35833
 DATE
 10/05/2018
 AMOUNT
 682.52

\$

----- SIX HUNDRED EIGHTY TWO & 52/100 DOLLARS -----

PAY TO THE ORDER OF

CLEARLAKE LAVA, INC.
 P O BOX 1250
 CLEARLAKE OAKS, CA 95423

[Signature]
 AUTHORIZED SIGNATURE

Security features included. Details on back.

⑈035833⑈ ⑆121140218⑆ 0537200578⑈

HIDDEN VALLEY LAKE CSD

35833



Clearlake Lava, Inc
 P.O. Box 1250
 Clearlake Oaks, CA 95423

INVOICE

RECEIVED

SEP 26 2018

INVOICE 104478
 PAGE 1
 DATE 9/23/2018
 TERMS Net 30 Days

SOLD TO Hidden Valley Lake Community Serv
 19400 Hartmann Road
 Hidden Valley Lake, CA 95467-8371

18896 GRANGE ROAD

120-5150 (DW) Sludge Beds

Ticket	Date	PO	Order	Product	Qty	Material Rate	Material Amount	Freight Rate	Freight Amount	Fee Amount	Tax Amount	Total
25155	9/18/2018		18896	Pea Gravel	23.75	17.75	421.56	120.00	230.40	0.00	30.56	682.52
Subtotal					23.75 Ton		421.56		230.40	0.00	30.56	682.52
Invoice Total					23.75 Ton		\$421.56		\$230.40	\$0.00	\$30.56	\$682.52

Total Invoice ----- > \$682.52

OPEN ON SATURDAYS.
 BY APPOINTMENT ONLY.

Vendor
 1479

Date Paid 10-02-2018
 Amount \$ 682.52
 Fund - - - - -
 Fund 120 - 500 - 5150 - 682.52
 Fund - - - - -
 Fund - - - - -
 Fund - - - - -
 Fund - - - - -
 Approved by MKL-TW - K.C.

Clearlake Lava, Inc
 14572 E. Hwy 20
 Clearlake Oaks, CA 95423
 (707) 998-1115
 Fax (707) 998-9575

Point Lakeview Rock & Redi Mix
 13329 Point Lakeview Rd
 Lower Lake, CA 95457
 (707) 995-1515

Hidden Valley Sand & Gravel
 18652 E. Hwy 20
 Clearlake Oaks, CA 95423
 (707) 998-1172



CEN #6

Quotation No.: LAM-5323

March 15, 2019

Company: Coastland Civil Engineering
Attention: Jennifer Melman
Fax No.: Email

Reference: Hidden Valley, Ca. Water Storage Tanks

Gentlemen:

Bid Item 1: To furnish labor, materials & equipment necessary to fabricate, deliver & erect on new foundations (By others), the following powder epoxy factory coated cone deck bolted steel tank per AWWA D-103 specifications including the following appurtenances;

- Shell & roof man-ways
- Stamped drawings & calculations
- Exterior caged ladder w/enclosure
- 8" overflow nozzle w/down-comer
- 6" outlet shell nozzle w/vortex breaker
- 6" shell nozzle w/down-comer
- Encapsulated hardware
- 20" roof vent
- (2) 5' handrails w/safety gate
- Superior LLI
- 6" drain shell nozzle
-

Approximate Selling Price Including Sales Tax:.....
- Two (2) 44' Dia. x 24' Ht. FPC BT's:.....\$ 169,986.00 PER TANK

Interior Coating: Fusion Bonded Epoxy Powder 5 Mils Min. D.F.T. (N. S. F. 61 Approved)
Axalta Tank Tan

Exterior Coating: Fusion Bonded Polyester Powder 5 Mils Min. D.F.T. Axalta Green

Delivery Time:

8 – 10 Weeks for Submittals
8 – 10 Weeks After Receipt of Approved Drawings (If Necessary)

General Notes:

Prevailing wage rates have been included in the erection labor. Included in the above prices is a water leak test by our erection crew. Filling the tank is the responsibility if the customer. Water for the initial filling and for any subsequent re-fillings required for water testing is also the responsibility of the customer.

Exclusions/Qualifications: Lightning Protection, Cathodic Protection, Foundation, Valves, Filling Tank, Pumps, Permits, Controls, Sensors, Sub-Base, Sub-grade Piping, Water For Hydro-Test, Electrical, Interior/Exterior Piping After First Flanged Nozzle (except where noted), Flexible Couplings and Chlorinated Water Disposal If Required, Not Included.



Terms:

- 10% Upon Receipt of Purchase Order
- 40% Upon Receipt of Approved Submittals
- 45% Upon Tank Erection
- 5% Upon Tank Hydro-tested

Warranty:

Our materials and workmanship are warranted for a period of (1) one year. We encourage our customers to fill the tank immediately with water and hold the fluid in for a minimum of 24 – 48 hours. If you should experience any leakage, we will be happy to dispatch a repairman as quickly as possible. Thereafter, a certain amount of fluid should be kept in the tank at all times.

Thank you for the opportunity to be of service. If you have any questions, or need additional information, please give me a call at 661-392-0188.

Sincerely;

A handwritten signature in black ink, appearing to read "Lewis A. Marquez", is written over a faint circular stamp or watermark.

Lewis A. Marquez
Bolted Tank Area Supervisor

HMGP Cost Estimate Spreadsheet

DATE	JURISDICTION NAME	DISASTER & PROJECT OR PLANNING #	PROJECT OR PLANNING TITLE		
4/8/2019	HIDDEN VALLEY LAKE CSD	4382	Water System Storage Reliability Project		
#	Item Name	Unit Quantity	Unit of Measure	Unit Cost	Cost Estimate Total
1	Pre-Award Costs: (see Work Estimate for details)	1	EA	\$ 46,610.00	\$ 46,610
2	Post-Award Design & Const. Mgmt: (See Work Estimate)	1	EA	\$ 333,235.00	\$ 333,235
3	Land Acquisition (for Lot-line Adjustment)	0.72	AC	\$ 50,000.00	\$ 36,000
4	Construction Costs:				
5	Mobilization	1	EA	\$ 90,697.05	\$ 90,697
6	Remove Tree and Grind Roots	23	EA	\$ 1,620.00	\$ 37,260
7	Clearing and Grubbing/Vegetation Management	0.75	AC	\$ 9,000.00	\$ 6,750
8	Demolish Security Fence	344	LF	\$ 13.50	\$ 4,644
9	Site Excavation	3265	CY	\$ 47.25	\$ 154,271
10	Drainage Inlet, 24"x24"	3	EA	\$ 4,050.00	\$ 12,150
11	Drainage Pipe (12")	190	LF	\$ 135.00	\$ 25,650
12	Security Fencing: 8' tall	670	LF	\$ 101.00	\$ 67,670
13	Security Gate - 15' wide	1	EA	\$ 8,100.00	\$ 8,100
14	Remove Water Main	169	LF	\$ 32.00	\$ 5,400
15	Water Pipe (8" C900)	390	LF	\$ 162.00	\$ 63,180
16	Water Pipe (8" DIP)	40	LF	\$ 270.00	\$ 10,800
17	8" Gate Valve	5	EA	\$ 2,430.00	\$ 12,150
18	6" Gate Valve	2	EA	\$ 2,025.00	\$ 4,050
19	Concrete Retaining Walls	79.8	CY	\$ 2,700.00	\$ 215,460
20	Tank Foundation	42.8	CY	\$ 2,700.00	\$ 115,560
21	Minor Concrete, Valley Gutter	565	LF	\$ 54.00	\$ 30,510
22	Bolted Steel Tank (250,000 gallon)	2	EA	\$ 229,500.00	\$ 459,000
23	Demolish Water Tank and Concrete Ring Foundation	1	EA	\$ 10,800.00	\$ 10,800
24	Abandon and Remove Overflow and Drainage Pipe	60	LF	\$ 13.50	\$ 810
25	Electrical System	1	EA	\$ 8,100.00	\$ 8,100
26	Cathodic Protection	1	EA	\$ 6,750.00	\$ 6,750
27	Drainage Pipe (6" WSP)	40	LF	\$ 128.00	\$ 5,120
28	Overflow Pipe (6" WSP)	60	LF	\$ 128.00	\$ 7,680
29	Rock Slope Protection	15	SY	\$ 162.00	\$ 2,430
30	Class 2 Aggregate Base	170	CY	\$ 202.50	\$ 34,425
31	Asphalt Concrete	167	TON	\$ 209.25	\$ 34,945
Total Project Cost Estimate:					\$ 1,850,207

From: [Matt Moyneur](#)
To: [Jason Coleman](#)
Cc: [Jennifer Melman](#)
Subject: RE: Hidden Valley Lake - Emergency Generator Project
Date: Monday, June 17, 2019 4:27:35 PM

Hi Jason,

My cost estimates are provided below. If the project moves forward, then I will get you a formal proposal with a more detailed description of our work. Let me know if that will work or if you need a more detailed scope by Wednesday.

My estimated budgets for the scope you outlined in your email are as follows:

Geotechnical Report	\$10,000
Peer Plan Review	\$1500
Construction Testing	\$9000

Matt Moyneur, MS, PE, GE
Senior Engineer
mmoyneur@wallace-kuhl.com
916-372-1434 phone / 916-870-8834 cell



3050 Industrial Blvd., West Sacramento, CA 95691

www.wallace-kuhl.com

Geotechnical Engineering | Environmental & Ecological Services | Engineering Geology | Earthwork and Construction Materials Testing and Inspection | Construction Materials Laboratory

This email message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message.

From: Jason Coleman <jcoleman@lsce.com>
Sent: Monday, June 17, 2019 3:35 PM
To: Matt Moyneur <mmoyneur@wallace-kuhl.com>
Cc: Jennifer Melman <melman@coastlandcivil.com>
Subject: Hidden Valley Lake - Emergency Generator Project

Matt,

As we discussed on the phone moments ago, I am seeking a quick-turnaround cost estimate for geotechnical design and construction services needed for a project in Hidden Valley Lake, CA. Part of the project scope that will require WK's support includes demolition of an existing wooden framed building and construction of a replacement CMU block building which will house an emergency

generator at the Unit 9 site, and grading/construction of a new small retaining wall at the Greenridge booster pump station site to place an emergency generator. I've attached preliminary plans of both sites for your reference. The Unit 9 site is located at 38°49'27.84"N 122°33'50.43"W and the Greenridge site is located at 38°49'1.68"N 122°33'46.11"W.

I envision your scope of work will include the following items below:

1. Conduct a site visit at Unit 9 to review physical conditions, identify potential trenching locations and overall grading requirements. Inform US Alert subscribers to verify location of existing underground utilities prior to field investigation.
2. Soil borings and sampling at the Unit 9 site and followup laboratory testing needed for preparing geotechnical recommendations.
3. Preparation of a geotechnical report including a site map showing the location of borings, boring logs, a summary of lab test results, findings and conclusions, and recommendations for:
 - a) Site clearing, grading, excavation, subgrade, paving, etc. requirements
 - b) Foundation (footing/slab) design
 - c) Bearing capacity/settlement potential
 - d) Utility trench backfill and utility installation
 - e) Corrosion Potential
4. Provide peer plan review of small retaining wall design at the Greenridge site.
5. Perform geotechnical field testing onsite during construction at the Unit 9 site including the following:
 - a) Compaction Testing (I assume a total of 6 compaction tests should be adequate for overall grading/earthwork/trenching activities onsite at Unit 9). I assume testing would occur over 3 days.
 - b) Concrete Testing (Assume sampling of footing concrete, slab concrete, CMU grout and CMU mortar are required)

As I indicated on the phone, please send me your scope, budget by EOD tomorrow via email or pdf letter.

Thanks Matt,

Jason Coleman, PE
Supervising Engineer
Luhdorff & Scalmanini, Consulting Engineers
500 First Street
Woodland, CA 95695
Office (530) 661-0109
Direct (530) 207-5711

jcoleman@lsce.com

www.lsce.com



- f. Geotechnical engineering drainage improvements; and
- g. Supplemental geotechnical engineering services.

We will consult with you and your design team during the course of our work to transmit preliminary design data as needed. Upon completion, we will present the results of our study in a written report including summaries of the field and laboratory work.

Final Documents

After submittal of the report, we will provide on-call consultation during design regarding the geotechnical aspects of the project. In addition, we will review the project plans for conformance with our recommendations. Our comments, if any, will be provided to Coastland. Once the comments are addressed, we will provide a final letter for submittal.

The scope of services outlined herein does not include construction observation and testing, nor does it include the determination or evaluation of the presence or absence of hazardous materials, toxic mold or the corrosion potential of the site soils/rock or providing provisions for controlling moisture vapor migration through slabs.

Fee Estimate: RGH proposes to perform the services indicated above on a time and expense basis in accordance with the attached Schedule of Charges for a not-to-exceed fee of \$13,650. This fee can be broken down as follows:

Kick-Off Meeting/Field Review	\$1,000
Three Design Progress Meetings	\$1,950
Geotechnical Study	
Permitting/Mark USA/Private Utility Locator	\$2,400
Field Exploration Program	
Drilling Subcontractor	\$1,600
RGH Field Personnel	\$1,000
Laboratory Testing	\$1,500
Analysis and Report	<u>\$3,000</u>
Total for Geotechnical Study	<u>\$9,500</u>
Consultation and Plan Review	\$1,200



Experience is the difference

Santa Rosa Office
 1305 North Dutton Ave
 Santa Rosa, CA 95401
 P: 707-544-1072
 F: 707-544-1082

Napa Office
 1041 Jefferson St, Suite 4
 Napa, CA 94559
 P: 707-252-8105
 F: 707-544-1082

Middletown Office
 P.O. Box 852
 Middletown, CA 95461
 P: 707-987-4602
 F: 707-987-4603

SCHEDULE OF CHARGES
Effective September 1, 2016

Unless agreed otherwise, work is charged for on a time and expense basis in accordance with the following schedule of charges:

PERSONNEL

Principal	\$195/hour
Senior Associate	\$185/hour
Associate	\$170/hour
Project Manager	\$155/hour
Senior Engineer	\$140/hour
Senior Geologist	\$135/hour
Project Engineer/Geologist	\$120/hour
Staff Engineer/Geologist	\$105/hour
Field Engineer	\$100/hour
Graphics	\$80/hour
Report Typing/Reproduction	\$60/hour

EQUIPMENT

Vehicle	\$15/hour
Nuclear Density Gauge	\$12/test
Water Level Indicator	\$35/day
Slope Inclinometer Instrument	\$150/day
Pachometer	\$25/day
Coring Machine	\$300/day
Stormwater Sampling Equipment	\$50/day
Specialty Software (i.e. SLOPE/W, EZ-FRISK, VolFlo)	\$25/hour

CONCRETE

Compression Testing - Set of 4 Cylinders	\$115
Each Additional Cylinder Break	\$35
Coring Charge	\$125

OTHER

Travel time is charged at regular rates. Vehicle mileage is charged at the current federal rate. The above rates do not apply to projects receiving public funds subject to California Prevailing Wage law. Hourly rates for those projects will be supplied separately. For court appearance, expert witness testimony, or deposition the charge is \$275 per hour for the principal, associate, and project level professional and \$175 per hour for all others, payable in advance. Four and eight hour minimums apply for court appearance.

Time worked in excess of 8 hours per day and Saturday/night work will be charged at 1.5 times the hourly rate. Time worked in excess of 12 hours per day and Sundays/holidays will be charged at 2 times the hourly rate.

Outside services including laboratory analysis, consultants, subcontractors, equipment not listed above, outside reproduction, aerial photographs, meals, lodging, shipping and special equipment or services not listed above are charged at cost plus 20 percent.



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvicsd.org

LOCAL MATCH FUND COMMITMENT LETTER

3-1-21

Hidden Valley Lake Community Services District
19400 Hartmann Road
Hidden Valley Lake, CA 95467

Re: 4558-398 Subapplication Funding Match Commitment Letter

As part of the Hazard Mitigation Grant Program process, a local funding match of at least 25% is required. This letter serves as Hidden Valley Lake Community Services District's commitment to meet the local match fund requirements for the Hazard Mitigation Grant Program.

SOURCE OF NON-FEDERAL FUNDS:

LOCAL
AGENCY
FUNDING

OTHER
AGENCY
FUNDING

PRIVATE NON-
PROFIT
FUNDING

STATE
AGENCY
FUNDING

**NAME OF FUNDING
SOURCE:**

Hidden Valley Lake Community Services District

**FUNDS AVAILABILITY
DATE:**

7/1/2021

**FEDERAL SHARE AMOUNT
REQUESTED:**

\$1,052,713

**LOCAL SHARE AMOUNT
MATCH:**

\$350,904

FUNDING TYPE:

Operating revenues, force account labor,
administration



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvlcsd.org

If additional federal funds are requested, an additional local match fund commitment letter will be required.

Please contact Alyssa Gordon at 707-987-9201
agordon@hvlcsd.org with questions.

Sincerely,

A handwritten signature in blue ink that reads "Alyssa Gordon".

Alyssa Gordon
Project Manager
707-987-9201
707-987-3237
agordon@hvlcsd.org

Project Summary

Mitigation Title	Hazard	Benefits (B)	Costs (C)	BCR (B/C)
Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467	DFA - Wildfire	\$979,309	\$835,564	1.17
Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467	DFA - Wildfire	\$1,311,995	\$750,709	1.75
Total		\$2,291,304	\$1,586,273	1.44

Property Configuration

Property Title:	Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Property Location:	95467, Lake, California
Property Coordinates:	38.797607, -122.553759
Hazard Type:	Wildfire
Mitigation Action Type:	Defensible Space
Property Type:	Utilities
Analysis Method Type:	Historical Damages

Cost Estimation

Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467

Project Useful Life (years):	12
Project Cost:	\$765,335
Number of Maintenance Years:	12 Use Default: Yes
Annual Maintenance Cost:	\$8,842

**Damage Analysis Parameters -
Damage Frequency Assessment**

Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467

Year of Analysis Conducted:	2021
Year Property was Built:	1968
Analysis Duration:	54 Use Default: Yes

Utilities Properties

Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467

Type of Service:	Other
Number of Customers Served:	3,150
Value of Unit of Service (\$/person/day):	\$146.13 Use Default: Yes

Historical Damages Before Mitigation

Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467

Damage Year	Recurrence Interval (years)	Other Impact (days)	Optional Damages			Volunteer Costs		Damages (\$)	Total Current Dollars?	Imputed Damages (\$)
			Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days			
2015	28	8	0	0	0	0	0	3,682,476	No	3,682,476

Annualized Damages Before Mitigation			Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)	
28	3,682,476	131,517	

Expected Damages After Mitigation								Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Recurrence Interval (years)	Other Impact (days)	Optional Damages Category 1 (\$)	Optional Damages Category 2 (\$)	Optional Damages Category 3 (\$)	Volunteer Costs Number of Volunteers	Volunteer Costs Number of Days	Total Damages (\$)	
28	0.5	0	0	0	0	0	230,155	

Annualized Damages After Mitigation			Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)	
28	230,155	8,220	

Standard Benefits - Ecosystem Services		Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Total Project Area (acres):	0	
Percentage of Green Open Space:	0.00%	
Percentage of Riparian:	0.00%	
Percentage of Wetlands:	0.00%	
Percentage of Forests:	0.00%	
Percentage of Marine Estuary:	0.00%	
Expected Annual Ecosystem Services Benefits:	\$0	

Benefits-Costs Summary		Defensible Space @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Total Standard Mitigation Benefits:	\$979,309	
Total Social Benefits:	\$0	
Total Mitigation Project Benefits:	\$979,309	
Total Mitigation Project Cost:	\$835,564	
Benefit Cost Ratio - Standard:	1.17	
Benefit Cost Ratio - Standard + Social:	1.17	

Property Configuration	
Property Title:	Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Property Location:	95467, Lake, California
Property Coordinates:	38.797607, -122.553759
Hazard Type:	Wildfire
Mitigation Action Type:	Ignition-Resistant Construction
Property Type:	Utilities
Analysis Method Type:	Historical Damages

Cost Estimation		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Project Useful Life (years):	25	
Project Cost:	\$637,984.30	
Number of Maintenance Years:	25 Use Default: Yes	
Annual Maintenance Cost:	\$9,673	

Damage Analysis Parameters - Damage Frequency Assessment		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Year of Analysis Conducted:	2021	
Year Property was Built:	1968	
Analysis Duration:	54 Use Default: Yes	

Utilities Properties		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467
Type of Service:	Other	
Number of Customers Served:	3,150	
Value of Unit of Service (\$/person/day):	\$146.13 Use Default: Yes	

Historical Damages Before Mitigation		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467								
Damage Year	Recurrence Interval (years)	Other	Optional Damages			Volunteer Costs		Total		
		Impact (days)	Tank repair (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Immediate Damages (\$)
2015	28	8	0	0	0	0	0	3,682,476	No	3,682,476

Annualized Damages Before Mitigation		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467		
Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)		
28	3,682,476	131,517		

Expected Damages After Mitigation		Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467						
Recurrence Interval (years)	Other	Optional Damages			Volunteer Costs		Total Damages	
	Impact (days)	Tank repair (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	(\$)	
28	0.5	300,000	0	0	0	0	530,155	

Annualized Damages After Mitigation		
Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467		
Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
28	530,155	18,934

Benefits-Costs Summary	
Ignition-Resistant Construction @ 19400 Hartmann Rd, Hidden Valley Lake, California, 95467	
Total Standard Mitigation Benefits:	\$1,311,995
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$1,311,995
Total Mitigation Project Cost:	\$750,709
Benefit Cost Ratio - Standard:	1.75
Benefit Cost Ratio - Standard + Social:	1.75



I. INTRODUCTION

A Benefit Cost Analysis was performed for the Defensive Space Ignition Resistant Construction (DSIRC) project. This memo will provide background data for the parameters selected in the BCA Tool.

There are two mitigation actions taking place in this project; Defensive Space and Ignition Resistant Construction. Both actions will mitigate a Property Structure Type of **Utility** and a Hazard Type of **Wildfire**. Both mitigation actions are using the Damage Frequency Analysis (**DFA**) to derive a Benefit Cost Ratio (BCR).

II. DEFENSIVE SPACE

Mitigation Action Type – Defensible Space

Damage and Frequency Relationship – Historical Damages. In 2015, HVLCSD directly experienced the damaging effects of wildfire.

Project Useful life – 12 The parcels being protected have both brush and forest. The project useful life of vegetation management in the Project Useful Life Summary Table¹ has two separate useful life figures for defensible space projects. Because this project has both, an average of the two useful lives has been taken $(4-20)/2 = 12$ years. The annual maintenance costs (See Footnote #3) include maintaining the forest canopy as well as brush. Vegetation maintenance will take place annually by in-house field staff. The District will ensure staff is properly trained in the principles of Public Resource Code 4291, and the National Fire Protection Association's Standard 1144. HVLCSD is committed to keeping our infrastructure safe and defensible from wildfire.

Initial Project Costs – \$765,484 While the overall project costs are \$1,403,617, a costing analysis was performed to separate out Defensive Space costs from Ignition Resistant Costs.²

Annual Maintenance Costs - \$9,050 This figure incorporates one full week per year, two operators and equipment to maintain Defensive Space.³

Year property was built – 1968 District-owned land and infrastructure to be protected by defensive space was established in 1968.

¹ Project Useful Life

² Project costs per mitigation action

³ Defensive Space Maintenance Costs



Number of customers served – 3150. Total water connections = 2490,⁴ and average individuals per household = 2.53⁵. These two figures total 6,300 individuals served. The expectation of wildfire damage after mitigation must be applied to both mitigation action calculations. The number of customers served is therefore divided amongst the two mitigation actions $6300/2 = 3150$.

Type of Service – Other While mitigation activities are taking place protect the safe and reliable delivery of potable water to the community, HVLCSD is a municipality that provides both water and sewer services. The sewer service would not function without water. There are 1481 sewer connections, and 2490 water connections. Sewer service is provided to 59.5% of the water customers. The value of unit of service for wastewater is \$54/day. $59.5\% \text{ of } \$54/\text{day} = \$32.13/\text{day}$. The combined Value Unit of Service is therefore $\$114 \text{ (water)} + \$32.13 \text{ (weighted wastewater)} = \146.13 .

Historical Damages Before Mitigation

- Damage Year – 2015 This was the year of the Valley Fire (DR4240).
- Recurrence Interval – 28 This figure is derived by running a Benefit Cost Analysis for modeled damages, given the same mitigation action type, and the same hazard.⁶
- Impact Days – 8 This number comes from the HVLCSD experience from the Valley Fire.⁷The entire power panel at the Source Water wellfield **melted**, and the Potable water delivery system completely ran out of water.

Expected Damages After Mitigation

- Damage Year – 2015 This was the year of the Valley Fire (DR4240).
- Recurrence Interval – 28 This figure is derived by running a Benefit Cost Analysis for modeled damages, given the same mitigation action type, and the same hazard (See above footnote #3).
- Impact days – 0.5 In the instance of a wildfire of the same magnitude as the Valley Fire, extreme heat may enter the community, but protective measures in the parcels and easements of the municipality will protect critical infrastructure. The intensity of the wildfire will be curtailed by thinned vegetation, and damages are anticipated to be charring of water tanks and damage to sample stations. Repair and protection activity would be to shutdown the affected tank, so that the water delivery could bypass this tank so repairs could take place. This would take Field Operations staff .5 days to perform the isolation of the tank.

III. IGNITION RESISTANT CONSTRUCTION

Mitigation Action Type – Ignition Resistant Construction

⁴ Total Connections

⁵ Census-gov households by size

⁶ RI 28

⁷ Eight day loss of function



HVLCSD Defensive Space and Ignition Resistant Construction
Benefit Cost Analysis
Technical Memo

DR4558-PJ398

Damage and Frequency Relationship – Historical Damages. In 2015, HVLCSD directly experienced the damaging effects of wildfire.

Project Useful life – 25 There are two types of ignition resistant construction occurring in this project. The replacement of a water storage tank has a project useful life of 40 years⁸, and the default project useful life of structures to protect wellheads is used at 10 years. An average of these two $(10+40)/2 = 25$ years.

Initial Project Costs – \$638,133.20 While the overall project costs are \$1,403,617, a costing analysis was performed to separate out Defensive Space costs from Ignition Resistant Costs (See above footnote #1).

Annual Maintenance Costs - \$9,673 This figure incorporates monthly exterior inspections, annualized interior inspections, annualized minor repairs, and annualized re-painting.⁹

Year property was built – 1968 District-owned land and infrastructure to be protected by defensive space was established in 1968.

Number of customers served – 3150. Total water connections = 2490 (See footnote #4), and average individuals per household = 2.53 (See footnote #5). These two figures total 6,300 individuals served. The expectation of wildfire damage after mitigation must be applied to both mitigation action calculations. The number of customers served is therefore divided amongst the two mitigation actions $6300/2 = 3150$.

Type of Service – Other While mitigation activities are taking place protect the safe and reliable delivery of potable water to the community, HVLCSD is a municipality that provides both water and sewer services. The sewer service would not function without water. There are 1481 sewer connections, and 2490 water connections. Sewer service is provided to 59.5% of the water customers. The value of unit of service for wastewater is \$54/day. $59.5\% \text{ of } \$54/\text{day} = \$32.13/\text{day}$. The combined Value Unit of Service is therefore $\$114 \text{ (water)} + \$32.13 \text{ (weighted wastewater)} = \146.13 .

Historical Damages Before Mitigation

- Damage Year – 2015 This was the year of the Valley Fire (DR4240).
- Recurrence Interval – 28 This figure is derived by running a Benefit Cost Analysis for modeled damages, given the same mitigation action type, and the same hazard (See above footnote #3).
- Impact Days – 8 This number comes from the HVLCSD experience from the Valley Fire (See above footnote #4). The entire power panel at the Source Water wellfield **melted**, and the Potable water delivery system completely ran out of water.

Expected Damages After Mitigation

- Damage Year – 2015 This was the year of the Valley Fire (DR4240).
- Recurrence Interval – 28 This figure is derived by running a Benefit Cost Analysis for modeled damages, given the same mitigation action type, and the same hazard (See above footnote #3).

⁸ Storage Tank Useful Life

⁹ Ignition Resistant Construction Maintenance Costs



HVLCSD Defensive Space and Ignition Resistant Construction
Benefit Cost Analysis
Technical Memo

DR4558-PJ398

- Impact days – 0.5 The ignition resistance structures at the wellfield are flanked by grasslands to the west of the easement. To the east of the easement are irrigated vineyards. In the instance of a wildfire of the same magnitude as the Valley Fire, fire travels faster across grasslands. But relatively cooler. Once the fire reached the wells from the west, it would most likely be extinguished or redirected north or south. Charring would likely appear on the exterior of the structure. Repair to the water storage tank would involve investigating whether the charring compromised the integrity of the tank, and re-painting¹⁰. In order to verify the source water delivery system (pumps, chemical treatment injectors, and telemetry) is in complete working order, Field Operations would take .5 days to ensure the safety of the drinking water.

¹⁰ Tank Maintenance Costs (Re-painting)

How do I determine Project Useful Life?

The project useful life is the estimated amount of time (in years) that the mitigation action will be effective. The Project Useful Life Summary Table located on the following page provides Standard Values and acceptable useful life limits for a variety of mitigation projects. If a value other than the Standard Value is used, documentation and justification are required.

Project Useful Life is important in calculating the net present value of future benefits, which represent the benefits in a Benefit-Cost Ratio (BCR).

Project Type	Useful Life (years)		Comment
	Standard Value	Acceptable Limits (documentation required)	
Acquisition / Relocation			
All Structures	100	100	
Elevation			
Residential building	30	30-50	
Non-Residential Building	25	25-50	
Public Building	50	50-100	
Historic Buildings	50	50-100	
Structural / Non-Structural Building Project			
Residential Building Retrofit	30	30	
Non-Residential Building Retrofit	25	25-50	
Public Building Retrofit	50	50-100	
Historic Building Retrofit	50	50-100	
Roof Diaphragm Retrofit	30	30	Roof hardening and roof clips
Tornado Safe Room - Residential	30	30	
Tornado Safe Room - Community	30	30-50	Retrofit or Small Community safe room ≤ 16 people (30 yr), New (50 yr)
Non-Structural Building Elements	30	30	Ceilings, electrical cabinets, generators, parapet walls, or chimneys
Non-Structural Major Equipment	15	15-30	Elevators, HVAC, sprinklers
Non-Structural Minor Equipment	5	5-20	Generic contents, racks, shelves
Infrastructure Projects			
Major Infrastructure (dams, levees)	50	35-100	
Concrete infrastructure, flood walls, roads, bridges, major drainage system	50	35-50	
Culverts (concrete, PVC, CMP, HDPE, etc.)	30	25-50	Culvert with end treatment (i.e., wing walls, end sections, head walls, etc.)
	10	5-20	Culvert without end treatment (i.e., wing walls, end sections, head walls, etc.)
Pump stations, substations, wastewater systems, or equipment such as generators	50	50	Structures
	5	5-30	Equipment
Hurricane Storm Shutters	15	15-30	Depends on type of storm shutter
Utility Mitigation Projects	50	50-100	Major (power lines, cable, hardening gas, water, sewer lines, etc.)
	5	5-30	Minor (backflow valves, downspout disconnect, etc.)
Miscellaneous Equipment Projects			
Equipment purchases	2	2-10	Small, portable equipment (e.g., computer)
	30	5-30	Heavy equipment
Wildfire Mitigation Projects			
Defensible Space/Hazardous Fuels Reduction • Vegetation Management	4	2-4	Brush - Depends on drought conditions
	1	1	Grass - Depends on geographic location and precipitation
	20	3-20	Forest Canopy - Must be maintained every 3 years
Ignition Resistant Construction	10	10-30	Depends on type of construction and materials used.

Project costs per mitigation action

For the purposes of the Benefit Cost Analysis, the costs of the project were divided into two mitigation actions. While the entire cost of the project is \$1,403,617., care has been given to assessing costs by mitigation action. Each of the fifteen line items of the Cost Estimate Spreadsheet was categorized as either Defensive Space or Ignition Resistant Construction. The following table represents this categorization, and how the split was derived.

Tasks	Total cost	Defensive Space	Ignition Resistant Construction	Description
Pre-Award	\$13,339.	\$6,669.30	\$6,669.30	An even split of the PM's time developing Subapplication
Environmental Compliance	\$35,620.	\$28,496.	\$7,124.	Defensive Space is allocated 80% of this cost due to the larger footprint of this effort.
Geotechnical Study	\$28,222.	\$5,644.40	\$22,577.60	Ignition Resistant Construction is allocated 80% of this cost due to the foundation and concrete compaction analysis needed for a new Water Storage Tank.
Design & Specifications	\$72,100.	\$14,420.	\$57,680.	Ignition Resistant Construction is allocated 80% of this cost as the footprint of the Water Storage Tank will be changing which will change the site plan.
Bid development, solicitation, & award	\$3,825.	\$765.	\$3,060.	Ignition Resistant Construction is allocation 80% of this costs because design calculations and technical specifications for bidders will be centered around tank construction.
Mobilization	\$66,825.	\$33,412.50	\$33,412.50	This is an even split of costs. Equal efforts are anticipated for both mitigation actions of obtaining permits, installing environmental protections, moving equipment and materials to the site, hiring

				subcontractors, preparing submittals, demobilization, and closeout tasks.
Site prep, purchases	\$192,976.	\$38,595.20	\$154,380.80	Ignition Resistant Construction is allocated 80% of this cost largely due to the purchase of a bolted steel tank.
Immediate Ignition Zone, Cut & Fill	\$28,733.	\$28,700.		This task to 100% Defensive Space activity.
Off-hauling	\$140,800.	\$140,800.		This task is 100% Defensive Space activity.
Intermediate & Extended Ignition Zone	\$467,942.	\$467,942.		This task is 100% Defensive Space activity.
Piping to Tank 4A, 4B isolation	\$83,970.		\$83,970.	This task is 100% Ignition Resistant Construction.
Demolish existing Tank 4A	\$10,800.		\$10,800.	This task is 100% Ignition Resistant Construction.
New Tank 4A Foundation	\$115,560.		\$115,560.	This task is 100% Ignition Resistant Construction.
Tank 4A Construction	\$74,364.		\$74,364.	This task is 100% Ignition Resistant Construction.
Wellhead structure construction	\$68,528.		\$68,528.	This task is 100% Ignition Resistant Construction.
New Tank 4A testing & tie-in				Included in Piping costs
Closeout tasks				Included in Mobilization costs
Totals	\$1,403,617.	\$765,484.	\$638,133.	

Defensive Space Maintenance Costs

Thinning ladder fuels and debris.

For one week annually, the use of a rental boom truck¹ off-hauling by two Operators² and two vehicles³, and the use and maintenance of 2 chainsaws⁴

Description	Rate	Quantity	Costs
Utility Supervisor	\$68.24/hr	40	\$2,729.60
Dump Truck	\$42.33/hr	40	\$1,693.20
Operator II	\$50.41/hr	40	\$2,016.40
Pickup Truck	\$12.78/hr	40	\$511.20
Boom truck rental	\$1500.00/wk	1	\$1,500
Chainsaw monthly maintenance	\$25/mo	24 (12 *2)	\$600
Totals			\$9050.

¹ United Rental

² Pay Rate

³ FEMA equipment codes

⁴ Chainsaw maintenance

United Rentals now offers a [contactless drive-up service](#) to safely and efficiently pick up the equipment you need.

[Equipment](#) > [Aerial Work Platforms](#) > [Boom Lifts](#) > [Boom Lift Bucket Truck, 34-40'](#)

United Rental



Cat Class Code: 310-1034

Boom Lift Bucket Truck, 34-40'

Mobile bucket truck. Cherry picker. Highway operational

- Highway operational
- Long, articulating arm

Pricing

	Daily	Weekly	Monthly
WE'D RATE	\$509	\$1,331	\$3,405

You are viewing equipment rates for Hidden Valley Lake, CA 95467

Pay Rate

										CalPERS				
	HOURLY LABOR COSTS		Current Step	* Employee Compensation							0.12	MEDICARE	TOTAL	
1	Employee		Hourly Wage	Health	Denatal	Vision	Life	Sick	Vacation	0.07	0.0145	hourly rate		
2	General Manager	Dennis	\$ 60.00	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.77	\$ 4.61	\$ 7.20	\$ 0.87	\$ 86.30	Dennis	
3	Admin Svrc Mgr	Penny	\$ 36.22	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.67	\$ 1.39	\$ 2.54	\$ 0.53	\$ 53.54	Penny	
5	Acct Supervisor	Trish	\$ 45.21	\$ 5.53	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.09	\$ 3.48	\$ 5.43	\$ 0.66	\$ 62.37	Trish	
6	Sr Acct Rep	Marty	\$ 31.25	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.44	\$ 1.20	\$ 2.19	\$ 0.45	\$ 47.80	Marty	
7	Acct Rep	Donna	\$ 21.82	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.01	\$ 0.84	\$ 1.53	\$ 0.32	\$ 40.58	Donna	
8	Project Manager	Alyssa	\$ 41.67	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.92	\$ 2.41	\$ 2.92	\$ 0.60	\$ 60.63	Alyssa	
9	Water Respirce	Hannah	\$ 28.11	\$ 5.53	\$ 0.19	\$ 0.12	\$ 0.08	\$ 1.30	\$ 1.08	\$ 1.97	\$ 0.41	\$ 38.39	Hannah	
10	Utility Supervisor	Barry	\$ 43.87	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 2.02	\$ 1.69	\$ 5.26	\$ 0.64	\$ 68.24	Barry	
11	OP II	Brandon	\$ 30.33	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 50.41	Brandon	
12	OP II	Nate	\$ 30.33	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 46.74	Nate	
13	OP I	Nik	\$ 24.70	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.14	\$ 0.95	\$ 2.96	\$ 0.36	\$ 45.14	Nik	
14	Utility Tech	Domminic	\$ 19.12	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 34.75	Dominic	
15	Utility Tech	Russell	\$ 19.12	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 1.34	\$ 0.28	\$ 37.46	Russell	
16	Utility Tech	Jesse	\$ 19.12	\$ 14.38	\$ 0.40	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 38.11	Jesse	
	Utility Tech	Vacant	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ -		\$ -	\$ -	\$ 0.08	Vacant	
										** Red number indicates PEPR class				

FEMA Equipment Codes

FEMA's SCHEDULE OF EQUIPMENT RATES

DEPARTMENT OF HOMELAND SECURITY
 FEDERAL EMERGENCY MANAGEMENT AGENCY
 RECOVERY DIRECTORATE
 PUBLIC ASSISTANCE DIVISION
 WASHINGTON, DC 20472

The rates on this Schedule of Equipment Rates are for applicant owned equipment in good mechanical condition, complete with all required attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incidental to operation. Standby equipment costs are not eligible.

Equipment must be in actual operation performing eligible work in order for reimbursement to be eligible. LABOR COSTS OF OPERATOR ARE NOT INCLUDED in the rates and should be approved separately from equipment costs.

Information regarding the use of the Schedule is contained in 44 CFR § 206.228 Allowable Costs. Rates for equipment not listed will be furnished by FEMA upon request. Any appeals shall be in accordance with 44 CFR § 206.206 Appeals.

THESE RATES ARE APPLICABLE TO MAJOR DISASTERS AND EMERGENCIES
 DECLARED BY THE PRESIDENT ON OR AFTER August 15, 2019.

FEMA Code ID		Equipment Description					2019 Updated Rate
Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	
8010	Air Compressor	Air Delivery	41 CFM	to 10	Hoses included.	hour	\$ 1.62
8011	Air Compressor	Air Delivery	103 CFM	to 30	Hoses included.	hour	\$ 9.86
8012	Air Compressor	Air Delivery	130 CFM	to 50	Hoses included.	hour	\$ 12.49
8013	Air Compressor	Air Delivery	175 CFM	to 90	Hoses included.	hour	\$ 20.98
8014	Air Compressor	Air Delivery	400 CFM	to 145	Hoses included.	hour	\$ 32.13
8015	Air Compressor	Air Delivery	575 CFM	to 230	Hoses included.	hour	\$ 57.05
8016	Air Compressor	Air Delivery	1100 CFM	to 355	Hoses included.	hour	\$ 95.60
8017	Air Compressor	Air Delivery	1600 CFM	to 500	Hoses included.	hour	\$ 98.55
8040	Ambulance			to 150		hour	\$ 28.09
8041	Ambulance			to 210		hour	\$ 41.18
8050	Board, Arrow			to 8	Trailer Mounted.	hour	\$ 4.53
8051	Board, Message			to 5	Trailer Mounted.	hour	\$ 11.60
8060	Auger, Portable	Hole Diameter	16 In	to 6		hour	\$ 2.34
8061	Auger, Portable	Hole Diameter	18 In	to 13		hour	\$ 4.65
8062	Auger, Tractor Mntd	Max. Auger Diameter	36 In	to 13	Includes digger, boom and mounting hardware.	hour	\$ 3.25
8063	Auger, Truck Mntd	Max. Auger Size	24 In	to 100	Includes digger, boom and mounting hardware. Add this rate to tractor rate for total auger and tractor rate.	hour	\$ 34.93
8064	Hydraulic Post Driver					hour	\$ 35.27
8065	Auger	Horizontal Directional Boring Machine	250 X 100	300	DD-140B YR-2003	hour	\$ 172.29
8066	Auger	Horizontal Directional Boring Machine	50 X 100	24	Average to 7,000 lbs	hour	\$ 33.83
8067	Auger, Directional Boring Machine	Auger, Directional Boring Machine	7,000 - 10,000 lbs	45	JT920L (2013)	hour	\$ 41.04
8068	Bush Hog	Bush Hog - Model 326	Single Spindle Rotary Cutters			hour	\$ 20.61
8068-1	Bush Hog	Bush Hog - Model 3210	Lift, Pull, Semi-Mount & Offset Model			hour	\$ 28.74
8068-2	Bush Hog	Bush Hog - Model 2815	Flex Wing Rotary Cutters			hour	\$ 43.17
8070	Automobile			to 130	Transporting people.	mile	\$ 0.545
8071	Automobile			to 130	Transporting cargo.	hour	\$ 12.43
8072	Automobile, Police			to 250	Patrolling.	mile	\$ 0.545
8073	Automobile, Police			to 250	Stationary with engine running.	hour	\$ 16.05
8075	Motorcycle, Police					mile	\$ 0.505
8076	Automobile - Chevy Trailblazer	6 or 8 cl		285 to 300		hour	\$ 23.99
8077	Automobile - Ford Expedition	Fire Command Center	EcoBoost V-6	360	2015 Model	hour	\$ 19.62
8078	MRAP Armored Rescue Vehicle	Search and Rescue	Military Suplus Vehicle	375-450	Qualified foe operational rate on	Hr.	\$ 51.80
8079	MRAP C-MTV	Multi-Theater (Military Surplus)Vehicle	gvwr 55000 Lbs	to 350	Qualified foe operational rate on	Hr.	\$ 48.35

8711	Flat bed utility trailer	6 ton		0		hour	\$	3.21
8712	Cleaner, Sewer/Catch Basin	Hopper Capacity	5 CY	50	Truck Mounted. (350 gal)	hour	\$	25.51
8713	Cleaner, Sewer/Catch Basin	Hopper Capacity	14 CY	60	Truck Mounted. (1500 Gal)	hour	\$	32.02
8714	Vactor-Combined Sewer Cleaning	800 Gal Spoils/400 Gal Water	500/800 gal	190	with water & waste Tanks	hour	\$	85.10
8714-1	Vector Combine Vaccum Truck	1500 gal Water	15 Cu Yd	330	with water & waste Tanks	hour	\$	86.94
8715	Truck, Hydro Vac	model LP555DT	36 - Hp pump	36	Towed by tractor	hour	\$	18.50
8716	Leaf Vac	Tow by Truck 22,000 cfm capacity		85	Leaf Vac + Truck Code 8811	hour	\$	52.93
8717	Truck, Vacuum	60,000 GVW		400		hour	\$	76.72
8719	Litter Picker	model 2007 Barber		0	Towed by tractor	hour	\$	9.60
8720	Truck, Dump	Struck Capacity	8 CY	to 220		hour	\$	57.70
8721	Truck, Dump	Struck Capacity	10 CY	to 320		hour	\$	72.05
8722	Truck, Dump	Struck Capacity	12 CY	to 400		hour	\$	79.62
8723	Truck, Dump	Struck Capacity	14 CY	to 400		hour	\$	77.50
8724	Truck, Dump, Off Highway	Struck Capacity	28 CY	to 450		hour	\$	136.57
8725	Truck, Dump	Struck Capacity	18 CY	to 400		hour	\$	91.65
8730	Truck, Garbage	Capacity	25 CY	to 255		hour	\$	49.79
8731	Truck, Garbage	Capacity	32 CY	to 325		hour	\$	57.06
8733	E-BAM Services	Environmental Beta Attenuation Air Monitor		0	Powered by Solar System	hour	\$	3.07
8734	Attenuator, safety	that can stop a vehicle at 60 mph		0		hour	\$	5.64
8735	Truck, Attenuator	2004 Truck Mounted for 60 mph		0		hour	\$	3.89
8736	Truck, tow	1987 Chevy Kodiak 70		175		hour	\$	28.73
8744	Van, Custom	Special Service Canteen Truck		350		hour	\$	18.35
8745	Van, step	model MT10FD		300		hour	\$	22.05
8746	Van-up to 15 passenger	light duty, class 1		225-300		hour	\$	20.48
8747	Van-up to 15 passenger	light duty, class 2		225-300		hour	\$	20.77
8748	Van-cargo	light duty, class 1		225 - 300		hour	\$	22.44
8749	Van-cargo	light duty, class 2		225-300		hour	\$	22.68
8750	Vehicle, Small			to 30		hour	\$	6.41
8753	Vehicle, Recreational			to 10		hour	\$	2.87
8754	Motor Coach	GVW=50534	56 Passenger + 1-Driver	430	Passenger Transportation	Hour	\$	63.94
8755	Golf Cart	Capacity	2 person	0	Battery operated	hour	\$	3.80
8770	Welder, Portable			to 16	Includes ground cable and lead cable.	hour	\$	4.11
8771	Welder, Portable			to 34	Includes ground cable and lead cable.	hour	\$	7.21
8772	Welder, Portable			to 50	Includes ground cable and lead cable.	hour	\$	13.66
8773	Welder, Portable			to 80	Includes ground cable and lead cable.	hour	\$	13.75
8780	Truck, Water	Tank Capacity	2500 Gal	to 175	Include pump and rear spray system.	hour	\$	31.05
8781	Truck, Water	Tank Capacity	4000 Gal	to 250	Include pump and rear spray system.	hour	\$	56.57
8788	Container & roll off truck	Roll off Truck	30 yds,	200	Roll-off-Truck only	hour	\$	23.73
8789	Truck, Tractor	1997 Freightliner F120		430		hour	\$	56.81
8790	Truck, Tractor	4 x 2	25000 lbs	to 210		hour	\$	43.43
8791	Truck, Tractor	4 x 2	35000 lbs	to 330		hour	\$	47.57
8792	Truck, Tractor	6 x 2	45000 lbs	to 360		hour	\$	52.98
8794	Truck, freight	Enclosed w/lift gate. Medium duty class 5	gvwr 16000-19500 Lbs	200	4 X 2 Axle (D)	hour	\$	27.25
8795	Truck, backhoe carrier	Three axle, class 8, heavy duty	over 33000Lbs	280		hour	\$	34.56
8796	Truck, freight	Eenclosed w/lift gate. Heavy duty, class 7	26,001 to 33,000 lbs gvwr	217	4 X 2 Axle (D)	hour	\$	31.43
8798	Truck	Tilt and roll-back, two axle, class 7 heavy duty,	to 33,000 gvwr	217	4 X 2 Axle (D)	hour	\$	32.13
8799	Truck,	Tilt and roll back, three axle. class 8 heavy duty	over 33,001+ gvwr	280	6 X 4 Axle (D)	hour	\$	42.33
8800	Truck, Pickup				When transporting people.	mile	\$	0.545
8801	Truck, Pickup	1/2-ton Pickup Truck	4x2-Axle	160		hour	\$	12.78
8802	Truck, Pickup	1-ton Pickup Truck	4x2-Axle	234		hour	\$	17.91
8803	Truck, Pickup	1 1/4-ton Pickup Truck	4x2-Axle	260		hour	\$	21.10
8804	Truck, Pickup	1 1/2-ton Pickup Truck	4x2-Axle	300		hour	\$	23.22

Chainsaw Maintenance

Starting off right: What to know about your chain saw before hitting the jobsite



Beth Hyatt Presley | March 3, 2020

Totallandscapecare.com



Photo: Husqvarna

Maintenance schedules

When it comes to cleaning and maintaining your chain saw, Ben McDermott, product manager with Husqvarna, says users should not only perform a weekly and **monthly** check on their saws, but also one after every single use. “These products are designed to perform at optimal levels, and with simple maintenance, you can make sure you extend the life of your product and ensure you avoid costly repairs and possible product replacement,” says McDermott. When performing cleaning and maintenance after use, McDermott says to begin by cleaning all external parts of the saw with either a soft brush or a rag. When performing this cleaning, be sure to remove as much debris as possible to prevent buildup or debris intrusion into the engine. It’s also important to ensure the trigger and throttle lockout are both still working properly and are returned to position.



Photo: Beth Presley/Total Landscape Care

“Inspect anti-vibrating damping features to ensure they are functioning properly and are not obstructed,” says McDermott. “Clean and check the chain break to ensure it’s functioning properly, and check the chain catcher to ensure it is securely mounted to the saw.”

When checking the cutting **equipment**, McDermott says to make sure you are wearing gloves before starting the process. Begin by checking the guide bars to make sure the oil channels aren’t blocked and be sure to inspect the edges for burrs. If you find any burrs, they can be removed with a file. Remove any debris from the guide bar groove, and if the bar groove is worn out or damaged, be sure and replace it. Take a close look at the tip to ensure the sprocket spins and moves freely, as this can help keep debris and other obstructions away from the sprocket. “With respect to the guide

bar, turn it over and flip it after each use,” says McDermott. “That will help prolong the life of the guide bar and allow for even wear on both the top and bottom channels. If you don’t flip it or don’t turn it, you’ll get an uneven pattern of wear.”

Chain maintenance is crucial for this piece of machinery, and it’s important to sharpen the chain after each use to make sure cutting efficiency is at optimal levels. “If you observe any cracking or damage to the chain, specifically cracks, you should remove that chain and replace it,” says McDermott.

“Make sure your chain is flexible and easy to manipulate so it’s not so stiff, hardened or worn. Make sure the rivets aren’t worn out or appear to be coming loose.” When sharpening cutters, McDermott says to use a round file and file guides, and you can maintain proper cutting height by using a depth gauge or a flat file. If the chain is filed improperly, the force of kickback can increase, so McDermott says it’s important to maintain the proper filing angle and specified cutting height. “When the cutting tooth is worn, replace the chain,” says McDermott. “That’s usually highlighted by an indicator mark on the chain (4mm). If it does not rotate in idle, it may require a carburetor adjustment.”

Rounding out the list of daily maintenance, McDermott says to check the drive sprocket for everyday wear and tear, to clean the air intake on the starter, be sure that all hardware is in place and tightened and to inspect the muffler to ensure it hasn’t been damaged.

Along with the daily checklist, McDermott recommends the following tips when conducting a weekly (or after seven uses) chain saw checkup. To start, clean the cooling system by taking off the starter housing and cylinder cover to remove any sawdust or debris that has accumulated in the internal components. Next, take time to lubricate the bar and bearings according to the specifications recommended in the owner’s manual, clean the carburetor area, clean the spark arrestor mesh on the muffler and clean or replace the air filter. McDermott says to always put the unit in choke when replacing the air filter, as this will help keep debris from getting into the engine.

When performing **monthly** maintenance checks, McDermott says to clean and check the break band on the chain break, clean and replace the spark plugs, check or replace the fuel filter and hose, check all cables and connectors and finish off by emptying the fuel and oil tanks and replacing with fresh oil and fuel.



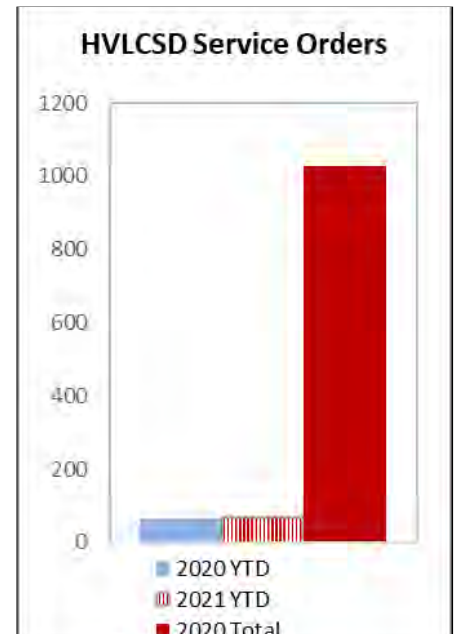
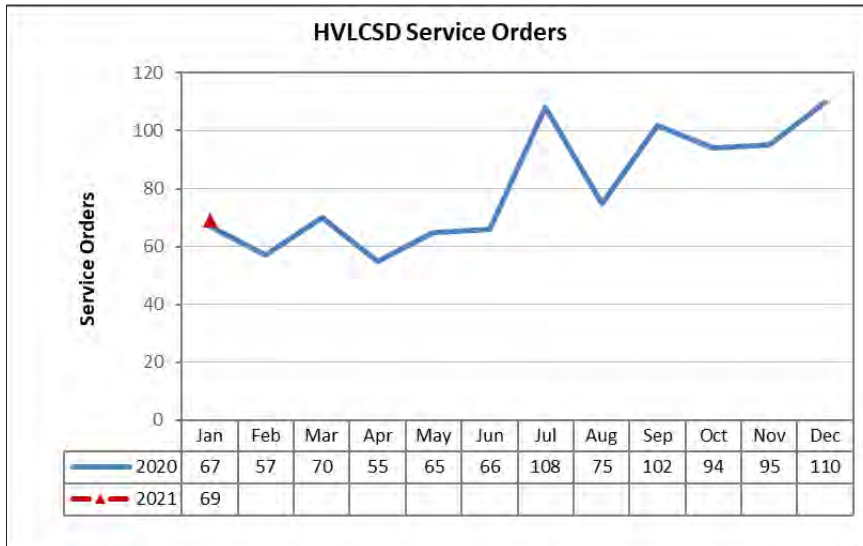
Hidden Valley Lake Community Services District

January 2021 Report

FIELD OPERATIONS

Water Connections:		Sewer Connections:	
New (This month)	0	New (This month)	0
Residential (Last month)	2450	Residential (Last month)	1465
Commercial & Govt (Last month)	40	Commercial & Govt (Last month)	16
Total :	2490		1481

Rainfall		
This month	Last year	Historical
4.98	1.87	8.31



Hours		
Overtime Hours	52	\$1,874.99

HH-4. Households by Size: 1960 to Present

(Numbers in thousands, except for averages)

For more information about ASEC, including the source and accuracy statement, see the technical documentation accessible at:
<https://www.census.gov/programs-surveys/cps/technical-documentation/complete.html>

Year	All households	Number of people							Average number of people per household
		One	Two	Three	Four	Five	Six	Seven or more	
2020	128,451	36,198	44,742	19,337	16,262	7,446	2,919	1,546	2.53
2019	128,579	36,479	44,373	19,374	16,413	7,429	2,909	1,602	2.52
2018	127,586	35,740	44,038	19,333	16,468	7,442	2,851	1,714	2.53
2017	126,224	35,252	43,509	19,509	16,212	7,319	2,798	1,624	2.54
2016	125,819	35,388	42,785	19,423	16,267	7,548	2,813	1,596	2.53
2015	124,587	34,866	41,881	19,309	16,464	7,517	2,820	1,729	2.54
2014 ^s	123,229	34,185	41,589	19,369	16,244	7,454	2,774	1,614	2.54
2013	122,459	33,570	41,503	19,283	16,361	7,425	2,735	1,581	2.54
2012	121,084	33,188	40,983	19,241	16,049	7,271	2,734	1,617	2.55
2011 ^l	119,927	33,020	40,136	18,717	16,049	7,448	2,820	1,738	2.56
2011	118,682	32,723	39,718	18,529	15,910	7,346	2,773	1,684	2.58
2010	117,538	31,399	39,487	18,638	16,122	7,367	2,784	1,740	2.59

Recurrence Interval = 28



Project Name: Defensible Space Ignition Resistant Construction
[Copied on 2/25/2021 @ 8:50:43]

Hazard Type: Wildfire

Benefit-Cost Analysis

Mitigation Action Type: Defensible Space Ignition-Resistant Construction

Property Type: Residential Building

Hazard Properties

Enter the Average Burn Recurrence Interval for 95467 (years):

28

Use Default? Yes

Enter the Project Effectiveness (%):

20

Standard Benefits - Building

Enter the Number of Buildings Protected by Proposed Project:

0

Total building replacement value (BRV) of all building(s) within proposed project area (\$):

0

Standard Benefits - Contents

Value of Building Contents (\$):

0

Use Default? Yes

Standard Benefits - Other

Value of Infrastructure vulnerable to fire in project area (\$):

0

Value of Timber to be sold within proposed project area (\$):

0

Fire suppression costs for one typical fire within proposed project area (\$):

0

Other costs mitigated by proposed project (\$):

0



Hidden Valley Lake Community Services District

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March 1, 2021

Re: Eight day loss of function as illustrated by the Valley Fire experience

I. Introduction

Based on our experience, a wildfire of the magnitude of the Valley Fire would cause an eight-day loss of function for potable water services. This was our experience during the Valley Fire of September 2015, and is based on two primary determining factors, our relative rural location, and the topology of our community. After the power panel for our production wells *melted* during the Valley Fire¹, it took us eight days to fully restore service, only thanks to the heroic efforts of our staff and some amazing vendors.

Figure 1 - New Power Panel



¹ Figure 1, Wellfield power panel



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II. Rural

The rural nature of our community means there may be many miles in a number of directions of densely forested wildlands. The intense heat and speed of travel of these recent major wildfires has shown us that by the time a wildfire reaches our perimeter, the flames have been fanned and fueled up to a fever pitch, and intensely hot. The juxtaposition of this thickly settled area with wildlands underscores our vulnerability within Hidden Valley Lake².

The reliable water availability of HVLCSD amidst this expanse of wildfire fuel is significant to water treatment and delivery professionals. This means that we are the most robust water source in the area for our residents as well as fire-fighters. When a major wildfire erupts during the Diablo wind season like they have for the last seven consecutive years, surrounding towns and communities look to HVLCSD for water. We are simply the best water source around. The responsibility of protecting the health and safety of not only the immediate community, but the surrounding areas as well, became quite apparent during the Valley Fire and is something we do not take lightly.

III. Topology & Repair Chronology

HVLCSD serves potable water to residents at 900 ft mean sea level (MSL), and all the way up to 2100 MSL. The mechanisms to facilitate lifting of water to all residents is no small matter. In fact, the level of experience and energy needed to keep this water treatment and distribution system successfully running was highlighted during the Valley Fire. As previously mentioned, the wells that provide water to the community were rendered inoperable when the power panel completely *melted* (See Figure 1). We were unable to deliver water to residents, which would have represented a complete service disruption. At CalFire's behest, HVLCSD Field Operators were allowed into the community while it was still burning, to get the water running again. With the ingenuity that comes from many years of experience with this particular water system, staff was able to get power to the wells, and start pumping water again. As it turns out, this was only the first of many obstacles staff would face given the need to push the water uphill and reach every household.

While the wells were without power, all the water was drained from the water distribution system. Water tanks, water mains, and pressure reducing valves all depend on water being in the system to operate properly. In the absence of water, a condition called back-siphonage was created inside the distribution system. The back-siphonage condition permanently but silently damaged key elements of the water distribution system.

² Appendix A "Clear Lines of Communication" Oct 2, 2015



Hidden Valley Lake Community Services District

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Once on-site, the HVLCS D Field Operations staff developed a stop-gap solution with a portable generator to get power back to the wells. This solution solved one problem, but also demonstrated that it was not the only problem to getting water to all households.

In order to reliably deliver water to every elevation within this system, HVLCS D operates and maintains thirty-one miles of water mains, eight water storage tanks, eleven pressure reducing valves (PRV), three booster pump stations, and eight pressure zones.

Many PRVs were damaged due to the back-siphonage effect. For the first four days, staff was forced to run the water system manually, chase down open connections, and only deliver water to one pressure zone by operating 24 hours a day, alternating 12-16 hours shifts.

By the fifth day (9/16/15), PRVs were repaired³ from the back-siphonage damage and staff was able to pump into a second pressure zone. As soon as the supply arrived, however, the demand surpassed it. The fire was still burning. Again, our staff of **six** was maxed out with manual water system operation and chasing down open connections all the way to the top of the community. Our CERT certified Directors and Administrative staff worked together to develop Boil Water Notices and deliver them to every front door in the community.

It wasn't until the seventh day (9/18/15) that the telemetry was repaired enough to automatically pump and fill water tanks, a more efficient method to get, and keep, those tanks across the hilly landscape filled⁴. Staff was re-directed to now making that water potable. In addition to customary bacteriological samples, water tests for fuels and pesticides were initiated in recognition of the dangerous back-siphonage condition and its possible damaging effects.

On the eighth day (9/19/15) the lab results indicated that our water distribution system was producing potable water, and we shared this information at the very next emergency operations meetings. A re-population order was granted for the next afternoon. Boil-Water RESCISSION Notices were handed out as the residents filed back into the community⁵.

³ Appendix B Pace Invoice Valley Fire

⁴ Appendix C Telstar Invoice Valley Fire

⁵ Appendix D "Clear Lines of Communication" Sept 19, 2020



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IV. Summary

It is my intent with this memo to explain how a wildfire that enters our community and damages our infrastructure would cause an interruption of service of at least eight days.

The production of safe, reliable drinking water is of paramount importance to HVLCSD. Hopefully this recap of our eight-day service interruption helps illustrate the urgent need we face to mitigate our vulnerabilities. We want to ensure there is a community to come back to. Without water, this would be difficult.

Sincerely,

Dennis White
General Manager
Hidden Valley Lake Community Services District



9500 Lucas Ranch Road
 Rancho Cucamonga, CA 91730
 P. 909.912.0580 | F. 909.912.0588 | Toll Free. 800.221.TANK

LIFE CYCLE COST

Prospective water tank owners have a multitude of options and details when planning the construction of a new storage tank. The following Comparison illustrates the differences between both Bolted Steel (Fusion Bonded Epoxy) and Bolted Steel (Glass/Vitreous) water storage tanks. The best storage tanks are designed, manufactured and installed as major infrastructure projects. As a starting point, the minimum service life of a storage tank use to be considered 40 years. Today's storage industry, we find tanks that are being introduced into the market that will provide less than a 10 to 20 year service life and other products that will provide service in excess of 60 to 80 years. All of these products have an initial investment by construction type, but when the life cycle costs are added, the quality of the products will reflect the true value of the tank.

The measurement of coating performance must be viewed from two perspectives – Laboratory Conditions versus Real World Conditions.

Laboratory conditions using performance attributes such as hardness, thickness, film continuity, abrasion resistance, impact strength, elasticity, flexibility and adhesion strength are measured through the use of testing protocol as specified in various ASTM standards. These standards are established to quantify each physical characteristic of the coating system but do not establish a correlation between the physical characteristic and its ability to contribute to the long term serviceability of the coating system in a specific service environment. By looking at a comparison of some of the physical characteristics of fusion bonded epoxy coatings and glass linings it becomes obvious that these materials are drastically different. (See Chart Below)

Compare The Facts (Bolted Fusion Bonded Epoxy vs. Bolted Glass/Vitreous Enamel)

Tank Type	Vertical Rolled, Flanged panel	Horizontal Rolled, Tapered Panel
Panel Size	8.5' tall x 5' long	4.5' tall x 9' long
Plate Design	30 +	30 +
Service Life	40+ years	30 - 40 years
Edge Protection	Complete edge coverage	Poor and inconsistent
Bolt Holes	Complete hole coverage	Covered with sealant in the field
Coating Thickness	7 -11 mils	8 - 13 mils (due to high shop defect)
Temp. Tolerance	200° F water, Dry 300° F	140° F water, Dry N/A
Flexibility	Passes 1/8" mandrel test	None (cannot be field repaired)
Impact	160 in/lbs	4 in/lbs
Salt Spray	Passes 7500 hours	Passes 7500 hours
Sealant	Vulkem	Mastic
Gasket	EPDM & BUNA	None



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Glass linings are over twice as thick and are significantly harder and more abrasion resistant in comparison to fusion bonded epoxy coatings. Glass linings also possess adhesive and cohesive tensile strengths that significantly exceed fusion bonded epoxy systems. A laboratory performance comparison using the appropriate ASTM testing methods would certainly suggest that the fusion bonded epoxy was inferior to the glass lining system in these areas. Conversely the fusion bonded epoxy coatings are significantly more flexible and elastic but this is the only performance category that promotes the use of fusion bonded epoxy in place of glass linings.

In the real world, where performance is judged by service life expectations within a specific service environment, the glass lining and fusion bonded epoxy comparison must be judged from a water immersion perspective. In this type of service environment, the vast majority of superior physical characteristics associated with glass linings are underutilized. The water immersion service environment does not subject the coating system to erosion or abrasion sources or impacts originating from the interior of the tank therefore superior coating thickness, hardness, adhesion and impact strength are of minimal importance once a minimum performance baseline has been established and exceeded. If the performance baseline is predicated on the performance levels of the various coating systems approved for use in the AWWA D.102-06 Standard, both glass linings and fusion bonded epoxy systems far exceed these criterion. When physical performance characteristics that directly align with a water immersion environment (within a tank) are compiled and evaluated, characteristics such as water permeability, flexibility, elasticity and film continuity become critically important. These attributes are individually reviewed as follows:

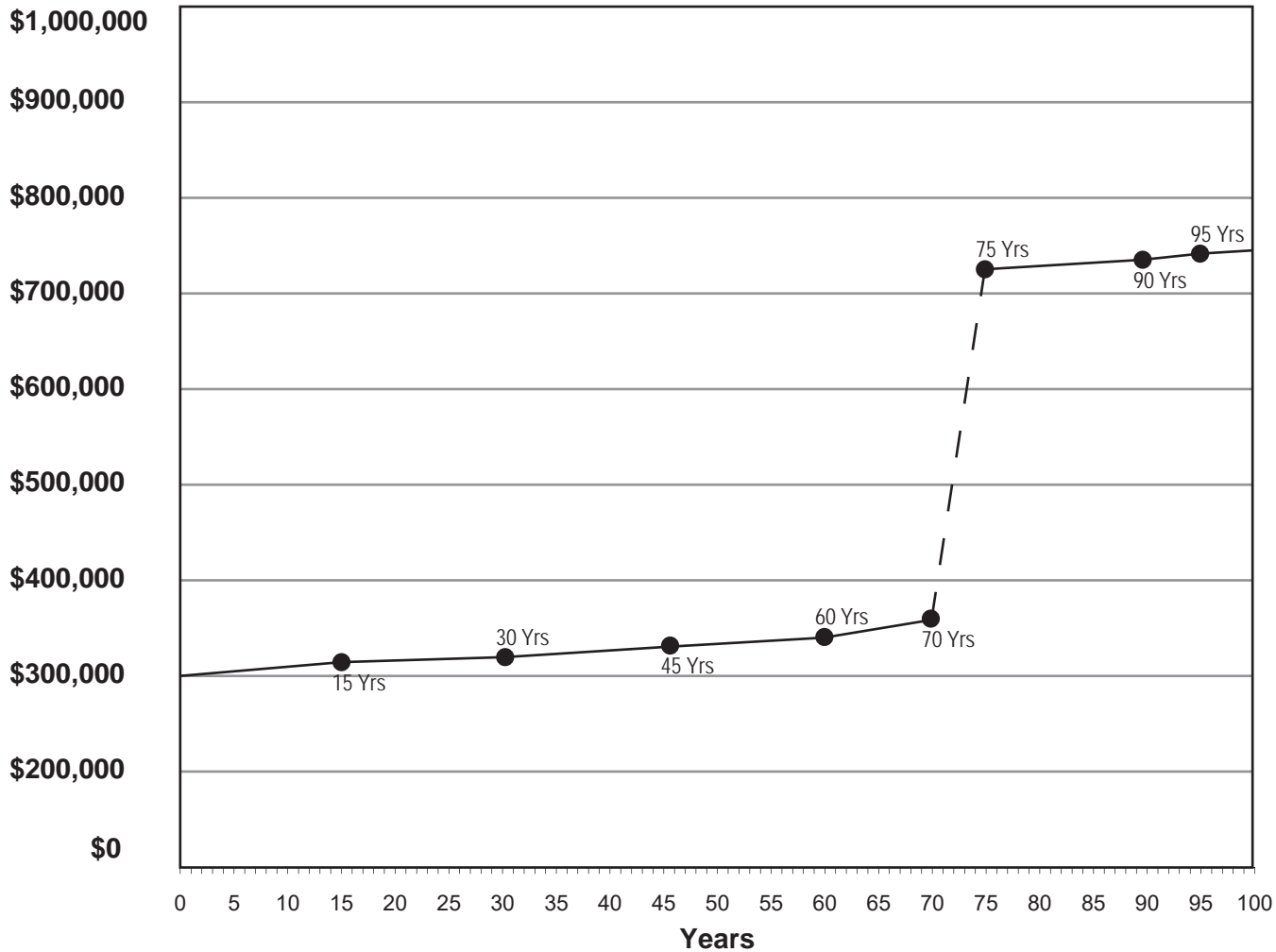
- Water permeability resistance with either system is similar and is considered to be far superior to the coating systems recommended in the AWWA D.102-06.
- Film continuity and/or the absence of localized coating voids is achieved in the glass lining process through the use of thicker lining material with special provisions employed of plate edges and holes. The fusion bonded epoxy coatings use electrostatic spray operations to oppositely charge the substrate and coating to electrically attract the coating to the substrate and achieve 100% coverage. In both cases, holiday detection equipment is used in accordance with NACE RPO 188 to insure a complete and discontinuity free coating system. On this basis, both systems will uncompromisingly achieve a continuous film capable of achieving barrier protection.
- Flexibility and elasticity capabilities allow the coating to move in conjunction with the natural flexing and movement of the steel plates. This capability is vital during tank filling and draining cycles but is also applicable to localized deformations resulting from rock throwing, bullet impacts or other damage to the tank. Additionally, temperature variations and the associated expansion and contraction of the tank and its contents further emphasize the importance of using a flexible coating system. The flexibility and elasticity of the thinner fusion bonded coating system is unquestionably significantly superior to the rigid glass liner.

On this basis, the fusion bonded epoxy coating system exceeds each physical performance criterion deemed necessary to maximize service life expectations in a water immersion environment. When additional "real world" conditions are included such as the potential for corrosion to undercut the glass lining, the difficulty associated with detecting the undercutting and the potential for structural compromises in cases of serious corrosion degradation, the service life expectations are dramatically reduced when glass lining is involved.

LIFE CYCLE COST

1.052 MG, 86.00'D x 24.00'H

Fusion Bonded Epoxy Future Costs - Bolted Steel Tank



Initial Cost

\$300,000

Yr15: Interior/Exterior Renovation
\$15,000 (\$315,000)

Yr30: Interior/Exterior Renovation
\$15,000 (\$330,000)

Yr45: Interior/Exterior Renovation
\$15,000 (\$345,000)

Yr60: Interior/Exterior Renovation
\$15,000 (\$360,000)

Yr70: Interior/Exterior Renovation
\$10,000 (\$370,000)

Yr75: New Tank Replacement (If Req'd)
\$350,000 (\$720,000)

Yr90: Interior/Exterior Renovation
\$15,000 (\$735,000)

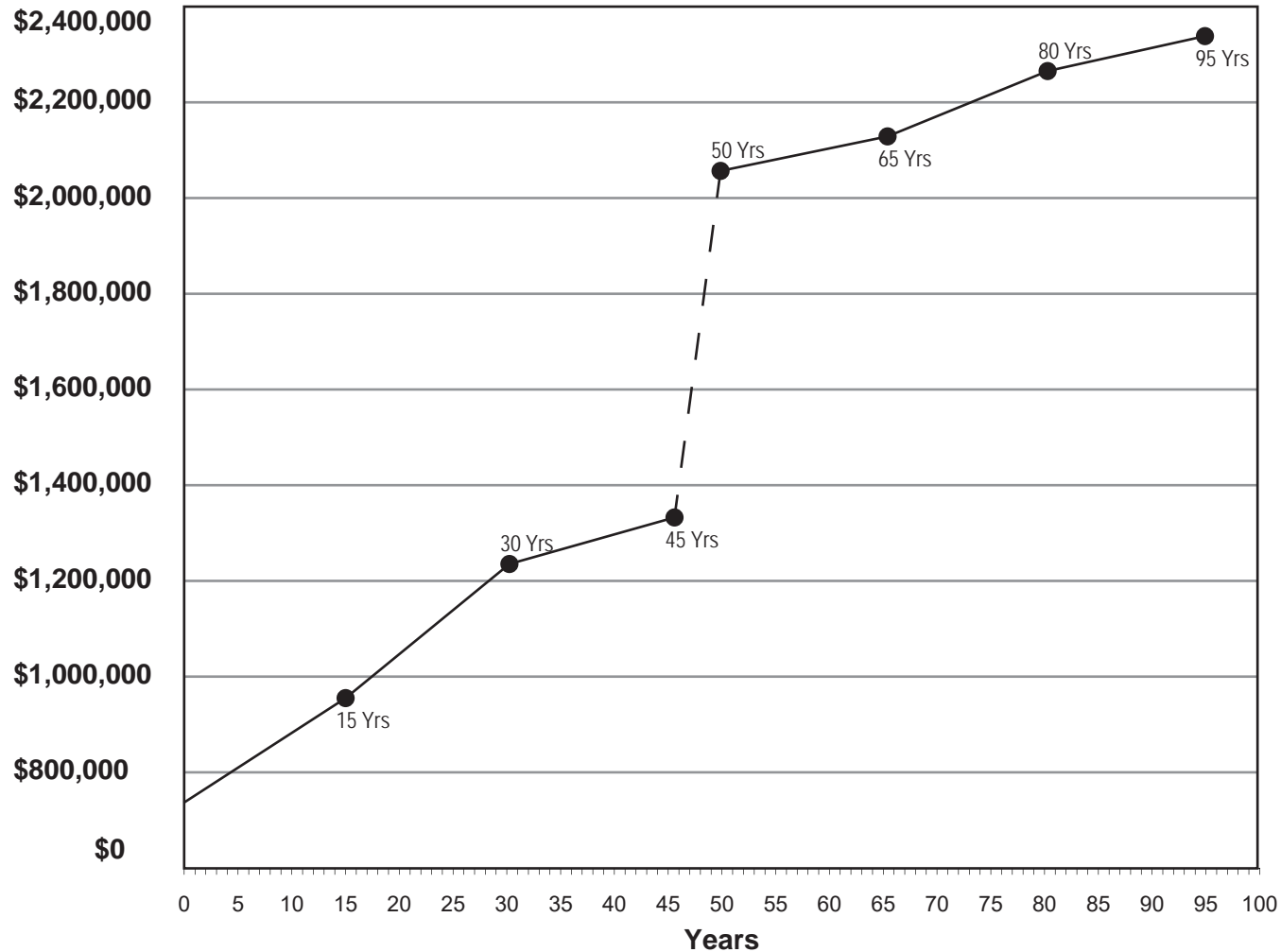
Yr95: Interior/Exterior Renovation
\$5,000 (\$740,000)

100 Yrs: \$740,000

LIFE CYCLE COST

1.052 MG, 86.00'D x 24.00'H

Glass/Vitreous Future Costs - Bolted Steel Tank



Initial Cost
*\$760,000

Yr15: Interior Touchup (5.0%) /
Exterior Topcoat (100.0%)
*\$203,552 (\$963,552)

Yr30: Interior/Exterior Renovation
*\$303,947 (\$1,267,499)

Yr45: Interior Touchup (5.0%) /
Exterior Topcoat (100.0%)
*\$114,316 (\$1,381,815)

Yr50: New Tank Replacement
\$696,409 (\$2,078,224)

Yr65: Interior Touchup (5.0%) /
Exterior Topcoat (100.0%)
*\$77,816 (\$2,156,040)

Yr80: Interior/Exterior Renovation
*\$116,194 (\$2,272,234)

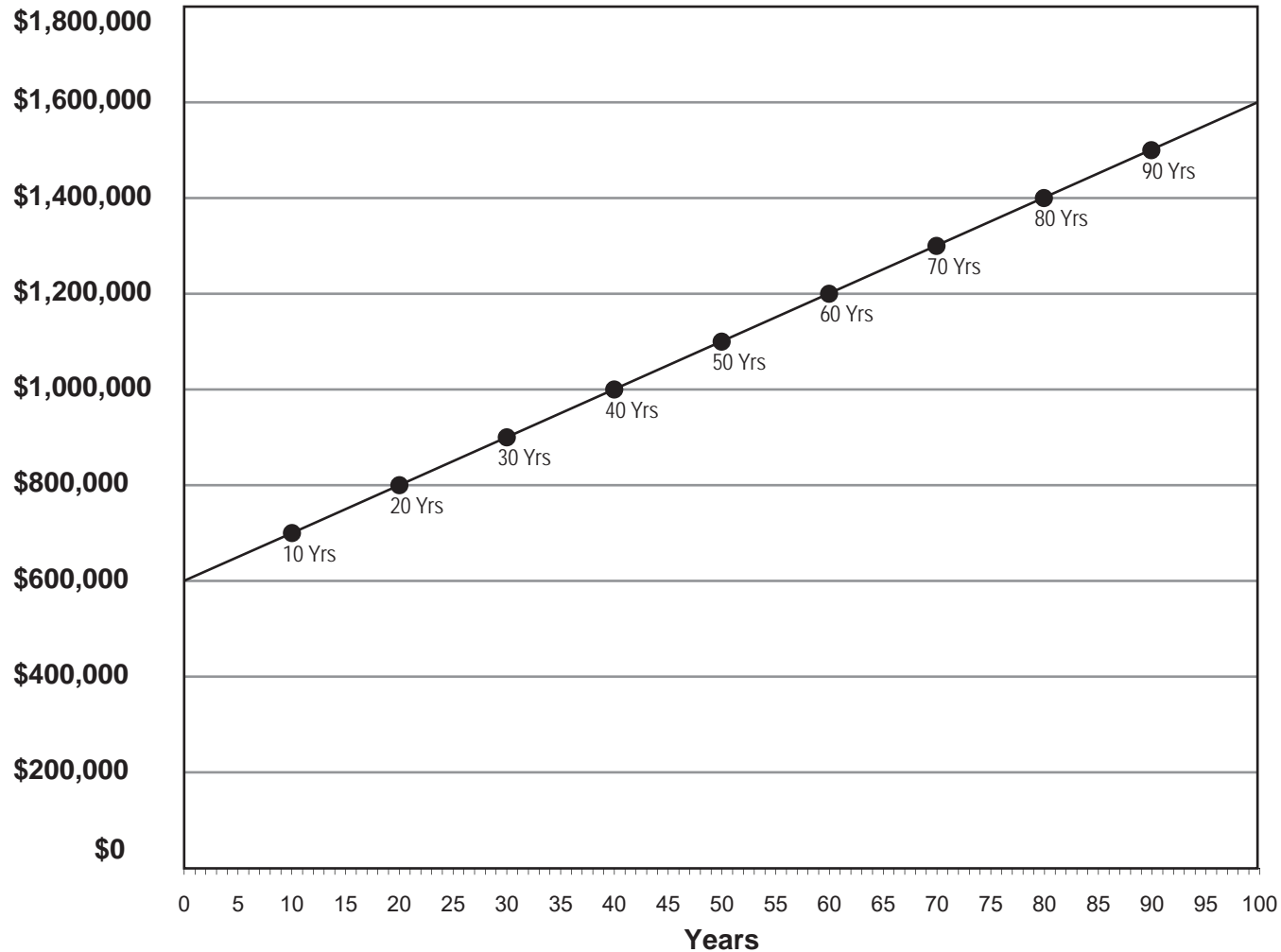
Yr95: Interior Touchup (5.0%) /
Exterior Topcoat (100.0%)
*\$43,702 (\$2,315,936)

100 Yrs: \$2,315,936

LIFE CYCLE COST

1.052 MG, 86.00'D x 24.00'H

Field Applied Coatings Future Costs - Welded Steel Tank



Initial Cost

\$600,000

Yr10: Interior/Exterior Renovation
\$100,000 (\$700,000)

Yr20: Interior/Exterior Renovation
\$100,000 (\$800,000)

Yr30: Interior/Exterior Renovation
\$100,000 (\$900,000)

Yr40: Interior/Exterior Renovation
\$100,000 (\$1,000,000)

Yr50: Interior/Exterior Renovation
\$100,000 (\$1,100,000)

Yr60: Interior/Exterior Renovation
\$100,000 (\$1,200,000)

Yr70: Interior/Exterior Renovation
\$100,000 (\$1,300,000)

Yr80: Interior/Exterior Renovation
\$100,000 (\$1,400,000)

Yr90: Interior/Exterior Renovation
\$10,000 (\$1,500,000)

100 Yrs: \$1,500,000

Ignition Resistant Construction Maintenance¹²

Tank Useful life is 40 years.³

Exterior inspection of the tank and well structures will take place monthly for two hours.

Description	Rate	Quantity	Recurrence	Costs
Utility Supervisor	\$68.24/hr	2 hrs	12 months	\$1,637.76
Utility Operator II	\$50.41/hr	2 hrs	12 months	\$1,209.84
Annual Total				\$2,847.60

Interior Tank Dive Inspection takes place once every 10 years.

Description	Rate	Quantity	Recurrence	Annualized Costs
Outsourced dive inspection	\$1,687	1 ea	4x	\$168.7
Utility Operator II	\$50.41/hr	6 hrs	4x	\$30.25
Annual Total				\$198.95

Minor Repairs to tank and well structures will take place once every 10 years and consists of gasket replacement, tightening bolts, and minor rust repair.

Description	Rate	Quantity	Recurrence	Annualized Costs
Utility Supervisor	\$68.24	20 hrs	4x	\$136.48
Utility Operator II	\$50.41	20 hrs	4x	\$100.82
Utility Technician	\$34.75	40 hrs	4x	\$139.
Annual Total				\$376.30

Re-Painting will take place every 20 years.

Description	Rate	Quantity	Recurrence	Annualized Costs
Outsourced Exterior painting	\$150,000	1 ea	Once	\$3,750.
Outsourced Interior painting	\$100,000	1ea	Once	\$2,500
Annual Total				\$6,250

$$\mathbf{\$2,847.60 + \$198.95 + \$376.30 + \$6,250 = \$9,673.}$$

¹ Based on Coastland Engineering figures "Tank Maintenance Cost"

² Pay Rate

³ Tank Useful life

**#1 Hidden Valley Lake CSD
Water Storage System Reliability Project
Maintenance Costs**

Task	Recurrence	Cost Assumptions	Costs per Recurrence	Total Cost over 50 Years
Exterior Tank Inspection	Annually	Inspection: Utility Supervisor: 6 hrs x \$62/hr Utility Operator II: 6 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 372.00 \$ 384.00 \$ 756.00	\$ 37,800.00
Interior Tank Inspection	Every 10 years	Dive inspection: Inspect (2) 250,000 gallong steel tank (\$1,687 ea) Utility Operator II: 12 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 3,375.00 \$ 768.00 \$ 4,143.00	\$ 20,715.00
Minor Repairs	Every 10 years	Replace gaskets/tighten bolts, minor rust repairs Utility Supervisor: 20 hrs x \$62/hr Utility Operator II: 20 hrs x \$64/hr Utility Worker: 40 hrs x \$39/hr Materials and equipment <i>Total Cost per Recurrence</i>	\$ 1,240.00 \$ 1,280.00 \$ 1,560.00 \$ 6,000.00 \$ 10,080.00	\$ 50,400.00
Re-Painting	Every 20 years	Exterior Repainting (\$150,000 each) Interior Repainting (\$100,000 each) <i>Total Cost per Recurrence</i>	\$ 300,000.00 \$ 200,000.00 \$ 516,080.00	\$ 1,032,160.00
Total Maintenance Costs over 50 Years				\$ 1,141,075.00
Maintenance Cost/Year				\$ 22,822.00



HVLCSD Defensive Space and Ignition Resistant Construction
(DSIRC) Pay Rates

DR4558-PJ398

#2

March 2, 2021

RE: Pay Rates

I hereby verify that the Pay Rates schedule below is a current and accurate depiction of wages and fringe benefit rates.

HOURLY LABOR COSTS		Current Step	* Employee Compensation							CalPERS	MEDICARE	TOTAL	
1 Employee		Hourly Wage	Health	Denatal	Vision	Life	Sick	Vacation	0.07	0.0145	hourly rate		
2 General Manager	Dennis	\$ 60.00	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.77	\$ 4.61	\$ 7.20	\$ 0.87	\$ 86.30	Dennis	
3 Admin Svrc Mgr	Penny	\$ 36.22	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.67	\$ 1.39	\$ 2.54	\$ 0.53	\$ 53.54	Penny	
5 Acct Supervisor	Trish	\$ 45.21	\$ 5.53	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.09	\$ 3.48	\$ 5.43	\$ 0.66	\$ 62.37	Trish	
6 Sr Acct Rep	Marty	\$ 31.25	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.44	\$ 1.20	\$ 2.19	\$ 0.45	\$ 47.80	Marty	
7 Acct Rep	Donna	\$ 21.82	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.01	\$ 0.84	\$ 1.53	\$ 0.32	\$ 40.58	Donna	
8 Project Manager	Alyssa	\$ 41.67	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.92	\$ 2.41	\$ 2.92	\$ 0.60	\$ 60.63	Alyssa	
9 Water Respirece	Hannah	\$ 28.11	\$ 5.53	\$ 0.19	\$ 0.12	\$ 0.08	\$ 1.30	\$ 1.08	\$ 1.97	\$ 0.41	\$ 38.39	Hannah	
10 Utility Supervisor	Barry	\$ 43.87	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 2.02	\$ 1.69	\$ 5.26	\$ 0.64	\$ 68.24	Barry	
11 OP II	Brandon	\$ 30.33	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 50.41	Brandon	
12 OP II	Nate	\$ 30.33	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 46.74	Nate	
13 OP I	Nik	\$ 24.70	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.14	\$ 0.95	\$ 2.96	\$ 0.36	\$ 45.14	Nik	
14 Utility Tech	Domminic	\$ 19.12	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 34.75	Dominic	
15 Utility Tech	Russell	\$ 19.12	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 1.34	\$ 0.28	\$ 37.46	Russell	
16 Utility Tech	Jesse	\$ 19.12	\$ 14.38	\$ 0.40	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 38.11	Jesse	
Utility Tech	Vacant	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ -	\$ -	\$ -	\$ -	\$ 0.08	Vacant	

** Red number indicates PEPR class

Trish Wilkinson
Accounting Supervisor
Hidden Valley Lake Community Services District

#3

LIFE CYCLE COST

Prospective water tank owners have a multitude of options and details when planning the construction of a new storage tank. The following Comparison illustrates the differences between both Bolted Steel (Fusion Bonded Epoxy) and Bolted Steel (Glass/Vitreous) water storage tanks. The best storage tanks are designed, manufactured and installed as major infrastructure projects. As a starting point, the minimum service life of a storage tank use to be considered 40 years. Today's storage industry, we find tanks that are being introduced into the market that will provide less than a 10 to 20 year service life and other products that will provide service in excess of 60 to 80 years. All of these products have an initial investment by construction type, but when the life cycle costs are added, the quality of the products will reflect the true value of the tank.

The measurement of coating performance must be viewed from two perspectives – Laboratory Conditions versus Real World Conditions.

Laboratory conditions using performance attributes such as hardness, thickness, film continuity, abrasion resistance, impact strength, elasticity, flexibility and adhesion strength are measured through the use of testing protocol as specified in various ASTM standards. These standards are established to quantify each physical characteristic of the coating system but do not establish a correlation between the physical characteristic and its ability to contribute to the long term serviceability of the coating system in a specific service environment. By looking at a comparison of some of the physical characteristics of fusion bonded epoxy coatings and glass linings it becomes obvious that these materials are drastically different. (See Chart Below)

Compare The Facts (Bolted Fusion Bonded Epoxy vs. Bolted Glass/Vitreous Enamel)

Tank Type	Vertical Rolled, Flanged panel	Horizontal Rolled, Tapered Panel
Panel Size	8.5' tall x 5' long	4.5' tall x 9' long
Plate Design	30 +	30 +
Service Life	40+ years	30 - 40 years
Edge Protection	Complete edge coverage	Poor and inconsistent
Bolt Holes	Complete hole coverage	Covered with sealant in the field
Coating Thickness	7 -11 mils	8 - 13 mils (due to high shop defect)
Temp. Tolerance	200° F water, Dry 300° F	140° F water, Dry N/A
Flexibility	Passes 1/8" mandrel test	None (cannot be field repaired)
Impact	160 in/lbs	4 in/lbs
Salt Spray	Passes 7500 hours	Passes 7500 hours
Sealant	Vulkem	Mastic
Gasket	EPDM & BUNA	None



9500 Lucas Ranch Road
Rancho Cucamonga, CA 91730
P. 909.912.0580 | F. 909.912.0588 | Toll Free. 800.221.TANK

Glass linings are over twice as thick and are significantly harder and more abrasion resistant in comparison to fusion bonded epoxy coatings. Glass linings also possess adhesive and cohesive tensile strengths that significantly exceed fusion bonded epoxy systems. A laboratory performance comparison using the appropriate ASTM testing methods would certainly suggest that the fusion bonded epoxy was inferior to the glass lining system in these areas. Conversely the fusion bonded epoxy coatings are significantly more flexible and elastic but this is the only performance category that promotes the use of fusion bonded epoxy in place of glass linings.

In the real world, where performance is judged by service life expectations within a specific service environment, the glass lining and fusion bonded epoxy comparison must be judged from a water immersion perspective. In this type of service environment, the vast majority of superior physical characteristics associated with glass linings are underutilized. The water immersion service environment does not subject the coating system to erosion or abrasion sources or impacts originating from the interior of the tank therefore superior coating thickness, hardness, adhesion and impact strength are of minimal importance once a minimum performance baseline has been established and exceeded. If the performance baseline is predicated on the performance levels of the various coating systems approved for use in the AWWA D.102-06 Standard, both glass linings and fusion bonded epoxy systems far exceed these criterion. When physical performance characteristics that directly align with a water immersion environment (within a tank) are compiled and evaluated, characteristics such as water permeability, flexibility, elasticity and film continuity become critically important. These attributes are individually reviewed as follows:

- Water permeability resistance with either system is similar and is considered to be far superior to the coating systems recommended in the AWWA D.102-06.
- Film continuity and/or the absence of localized coating voids is achieved in the glass lining process through the use of thicker lining material with special provisions employed of plate edges and holes. The fusion bonded epoxy coatings use electrostatic spray operations to oppositely charge the substrate and coating to electrically attract the coating to the substrate and achieve 100% coverage. In both cases, holiday detection equipment is used in accordance with NACE RPO 188 to insure a complete and discontinuity free coating system. On this basis, both systems will uncompromisingly achieve a continuous film capable of achieving barrier protection.
- Flexibility and elasticity capabilities allow the coating to move in conjunction with the natural flexing and movement of the steel plates. This capability is vital during tank filling and draining cycles but is also applicable to localized deformations resulting from rock throwing, bullet impacts or other damage to the tank. Additionally, temperature variations and the associated expansion and contraction of the tank and its contents further emphasize the importance of using a flexible coating system. The flexibility and elasticity of the thinner fusion bonded coating system is unquestionably significantly superior to the rigid glass liner.

On this basis, the fusion bonded epoxy coating system exceeds each physical performance criterion deemed necessary to maximize service life expectations in a water immersion environment. When additional "real world" conditions are included such as the potential for corrosion to undercut the glass lining, the difficulty associated with detecting the undercutting and the potential for structural compromises in cases of serious corrosion degradation, the service life expectations are dramatically reduced when glass lining is involved.

**Hidden Valley Lake CSD
Water Storage System Reliability Project
Maintenance Costs**

Task	Recurrence	Cost Assumptions	Costs per Recurrence	Total Cost over 50 Years
Exterior Tank Inspection	Annually	Inspection: Utility Supervisor: 6 hrs x \$62/hr Utility Operator II: 6 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 372.00 \$ 384.00 \$ 756.00	\$ 37,800.00
Interior Tank Inspection	Every 10 years	Dive inspection: Inspect (2) 250,000 gallon steel tank (\$1,687 ea) Utility Operator II: 12 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 3,375.00 \$ 768.00 \$ 4,143.00	\$ 20,715.00
Minor Repairs	Every 10 years	Replace gaskets/tighten bolts, minor rust repairs Utility Supervisor: 20 hrs x \$62/hr Utility Operator II: 20 hrs x \$64/hr Utility Worker: 40 hrs x \$39/hr Materials and equipment <i>Total Cost per Recurrence</i>	\$ 1,240.00 \$ 1,280.00 \$ 1,560.00 \$ 6,000.00 \$ 10,080.00	\$ 50,400.00
Re-Painting	Every 20 years	Exterior Repainting (\$150,000 each) Interior Repainting (\$100,000 each) <i>Total Cost per Recurrence</i>	\$ 300,000.00 \$ 200,000.00 \$ 516,080.00	\$ 1,032,160.00
Total Maintenance Costs over 50 Years				\$ 1,141,075.00
Maintenance Cost/Year				\$ 22,822.00



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvicsd.org

PROJECT MAINTENANCE LETTER

March 2, 2021

Hidden Valley Lake Community Services District
19400 Hartmann Road
Hidden Valley Lake, CA 95467

RE: 4558-398 Project Subapplication

Dear State Hazard Mitigation Officer:

This is to confirm that Hidden Valley Lake Community Services District is committed to perform the necessary maintenance for the entire useful life of this project (20 years defensive space, 40 years ignition resistant construction) once completed. The Hidden Valley Lake Community Services District is allocating an annual budget of \$20,000 which will allow maintenance to occur as needed to ensure the 13 Acres of land, Water Storage Tank 4A and Well 2 & 4 ignition resistant structures remain in good repair and operational.¹²

ENTITY RESPONSIBLE FOR THE
MAINTENANCE:

Hidden Valley Lake Community
Services District

PAST MAINTENANCE TASKS
INVOLVED:

13 acres: Weed abatement
Water Storage Tank 4A: Patching
external holes, tightening bands, 5-
year internal epoxy repair
Well sites: Weed abatement

FUTURE MAINTENANCE TASKS
INVOLVED:

13 acres: Annual defensive space
maintenance to include forest canopy
Water Storage Tank 4A: Exterior
inspection, interior dive inspection,
minor repairs, re-painting calculated
annually

FUTURE MAINTENANCE SCHEDULE:

Annually

FUTURE COST OF MAINTENANCE:

\$18,723

¹ Defensive Space Maintenance Costs

² Ignition Resistant Construction Maintenance Costs



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvlcsd.org

SOURCE OF FUTURE MAINTENANCE
FUNDS:

Water use fees, operational budget

Please contact Alyssa Gordon with questions.

Sincerely,

A handwritten signature in blue ink that reads 'Alyssa Gordon'.

Alyssa Gordon
Project Manager
707-533-9073
707-987-3237
agordon@hvlcsd.org

Defensive Space Maintenance Costs

Thinning ladder fuels and debris.

For one week annually, the use of a rental boom truck¹ off-hauling by two Operators² and two vehicles³, and the use and maintenance of 2 chainsaws⁴

Description	Rate	Quantity	Costs
Utility Supervisor	\$68.24/hr	40	\$2,729.60
Dump Truck	\$42.33/hr	40	\$1,693.20
Operator II	\$50.41/hr	40	\$2,016.40
Pickup Truck	\$12.78/hr	40	\$511.20
Boom truck rental	\$1500.00/wk	1	\$1,500
Chainsaw monthly maintenance	\$25/mo	24 (12 *2)	\$600
Totals			\$9050.

¹ United Rental

² Pay Rate

³ FEMA equipment codes

⁴ Chainsaw maintenance

United Rentals now offers a [contactless drive-up service](#) to safely and efficiently pick up the equipment you need.

[Equipment](#) > [Aerial Work Platforms](#) > [Boom Lifts](#) > [Boom Lift Bucket Truck, 34-40'](#)

United Rental



Cat Class Code: 310-1034

Boom Lift Bucket Truck, 34-40'

Mobile bucket truck. Cherry picker. Highway operational

- Highway operational
- Long, articulating arm

Pricing

	Daily	Weekly	Monthly
WE'D RATE	\$509	\$1,331	\$3,405

You are viewing equipment rates for Hidden Valley Lake, CA 95467

Pay Rate

										CalPERS				
	HOURLY LABOR COSTS		Current Step	* Employee Compensation							0.12	MEDICARE	TOTAL	
1	Employee		Hourly Wage	Health	Denatal	Vision	Life	Sick	Vacation	0.07	0.0145	hourly rate		
2	General Manager	Dennis	\$ 60.00	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.77	\$ 4.61	\$ 7.20	\$ 0.87	\$ 86.30	Dennis	
3	Admin Svrc Mgr	Penny	\$ 36.22	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.67	\$ 1.39	\$ 2.54	\$ 0.53	\$ 53.54	Penny	
5	Acct Supervisor	Trish	\$ 45.21	\$ 5.53	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.09	\$ 3.48	\$ 5.43	\$ 0.66	\$ 62.37	Trish	
6	Sr Acct Rep	Marty	\$ 31.25	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.44	\$ 1.20	\$ 2.19	\$ 0.45	\$ 47.80	Marty	
7	Acct Rep	Donna	\$ 21.82	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.01	\$ 0.84	\$ 1.53	\$ 0.32	\$ 40.58	Donna	
8	Project Manager	Alyssa	\$ 41.67	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.92	\$ 2.41	\$ 2.92	\$ 0.60	\$ 60.63	Alyssa	
9	Water Respirce	Hannah	\$ 28.11	\$ 5.53	\$ 0.19	\$ 0.12	\$ 0.08	\$ 1.30	\$ 1.08	\$ 1.97	\$ 0.41	\$ 38.39	Hannah	
10	Utility Supervisor	Barry	\$ 43.87	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 2.02	\$ 1.69	\$ 5.26	\$ 0.64	\$ 68.24	Barry	
11	OP II	Brandon	\$ 30.33	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 50.41	Brandon	
12	OP II	Nate	\$ 30.33	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 46.74	Nate	
13	OP I	Nik	\$ 24.70	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.14	\$ 0.95	\$ 2.96	\$ 0.36	\$ 45.14	Nik	
14	Utility Tech	Domminic	\$ 19.12	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 34.75	Dominic	
15	Utility Tech	Russell	\$ 19.12	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 1.34	\$ 0.28	\$ 37.46	Russell	
16	Utility Tech	Jesse	\$ 19.12	\$ 14.38	\$ 0.40	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 38.11	Jesse	
	Utility Tech	Vacant	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ -		\$ -	\$ -	\$ 0.08	Vacant	
										** Red number indicates PEPR class				

FEMA Equipment Codes

FEMA's SCHEDULE OF EQUIPMENT RATES

DEPARTMENT OF HOMELAND SECURITY
 FEDERAL EMERGENCY MANAGEMENT AGENCY
 RECOVERY DIRECTORATE
 PUBLIC ASSISTANCE DIVISION
 WASHINGTON, DC 20472

The rates on this Schedule of Equipment Rates are for applicant owned equipment in good mechanical condition, complete with all required attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incidental to operation. Standby equipment costs are not eligible.

Equipment must be in actual operation performing eligible work in order for reimbursement to be eligible. LABOR COSTS OF OPERATOR ARE NOT INCLUDED in the rates and should be approved separately from equipment costs.

Information regarding the use of the Schedule is contained in 44 CFR § 206.228 Allowable Costs. Rates for equipment not listed will be furnished by FEMA upon request. Any appeals shall be in accordance with 44 CFR § 206.206 Appeals.

THESE RATES ARE APPLICABLE TO MAJOR DISASTERS AND EMERGENCIES
 DECLARED BY THE PRESIDENT ON OR AFTER August 15, 2019.

FEMA Code ID		Equipment Description					2019 Updated Rate
Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	
8010	Air Compressor	Air Delivery	41 CFM	to 10	Hoses included.	hour	\$ 1.62
8011	Air Compressor	Air Delivery	103 CFM	to 30	Hoses included.	hour	\$ 9.86
8012	Air Compressor	Air Delivery	130 CFM	to 50	Hoses included.	hour	\$ 12.49
8013	Air Compressor	Air Delivery	175 CFM	to 90	Hoses included.	hour	\$ 20.98
8014	Air Compressor	Air Delivery	400 CFM	to 145	Hoses included.	hour	\$ 32.13
8015	Air Compressor	Air Delivery	575 CFM	to 230	Hoses included.	hour	\$ 57.05
8016	Air Compressor	Air Delivery	1100 CFM	to 355	Hoses included.	hour	\$ 95.60
8017	Air Compressor	Air Delivery	1600 CFM	to 500	Hoses included.	hour	\$ 98.55
8040	Ambulance			to 150		hour	\$ 28.09
8041	Ambulance			to 210		hour	\$ 41.18
8050	Board, Arrow			to 8	Trailer Mounted.	hour	\$ 4.53
8051	Board, Message			to 5	Trailer Mounted.	hour	\$ 11.60
8060	Auger, Portable	Hole Diameter	16 In	to 6		hour	\$ 2.34
8061	Auger, Portable	Hole Diameter	18 In	to 13		hour	\$ 4.65
8062	Auger, Tractor Mntd	Max. Auger Diameter	36 In	to 13	Includes digger, boom and mounting hardware.	hour	\$ 3.25
8063	Auger, Truck Mntd	Max. Auger Size	24 In	to 100	Includes digger, boom and mounting hardware. Add this rate to tractor rate for total auger and tractor rate.	hour	\$ 34.93
8064	Hydraulic Post Driver					hour	\$ 35.27
8065	Auger	Horizontal Directional Boring Machine	250 X 100	300	DD-140B YR-2003	hour	\$ 172.29
8066	Auger	Horizontal Directional Boring Machine	50 X 100	24	Average to 7,000 lbs	hour	\$ 33.83
8067	Auger, Directional Boring Machine	Auger, Directional Boring Machine	7,000 - 10,000 lbs	45	JT920L (2013)	hour	\$ 41.04
8068	Bush Hog	Bush Hog - Model 326	Single Spindle Rotary Cutters			hour	\$ 20.61
8068-1	Bush Hog	Bush Hog - Model 3210	Lift, Pull, Semi-Mount & Offset Model			hour	\$ 28.74
8068-2	Bush Hog	Bush Hog - Model 2815	Flex Wing Rotary Cutters			hour	\$ 43.17
8070	Automobile			to 130	Transporting people.	mile	\$ 0.545
8071	Automobile			to 130	Transporting cargo.	hour	\$ 12.43
8072	Automobile, Police			to 250	Patrolling.	mile	\$ 0.545
8073	Automobile, Police			to 250	Stationary with engine running.	hour	\$ 16.05
8075	Motorcycle, Police					mile	\$ 0.505
8076	Automobile - Chevy Trailblazer	6 or 8 cl		285 to 300		hour	\$ 23.99
8077	Automobile - Ford Expedition	Fire Command Center	EcoBoost V-6	360	2015 Model	hour	\$ 19.62
8078	MRAP Armored Rescue Vehicle	Search and Rescue	Military Suplus Vehicle	375-450	Qualified foe operational rate on	Hr.	\$ 51.80
8079	MRAP C-MTV	Multi-Theater (Military Surplus)Vehicle	gvwr 55000 Lbs	to 350	Qualified foe operational rate on	Hr.	\$ 48.35

8711	Flat bed utility trailer	6 ton		0		hour	\$	3.21
8712	Cleaner, Sewer/Catch Basin	Hopper Capacity	5 CY	50	Truck Mounted. (350 gal)	hour	\$	25.51
8713	Cleaner, Sewer/Catch Basin	Hopper Capacity	14 CY	60	Truck Mounted. (1500 Gal)	hour	\$	32.02
8714	Vactor-Combined Sewer Cleaning	800 Gal Spoils/400 Gal Water	500/800 gal	190	with water & waste Tanks	hour	\$	85.10
8714-1	Vector Combine Vaccum Truck	1500 gal Water	15 Cu Yd	330	with water & waste Tanks	hour	\$	86.94
8715	Truck, Hydro Vac	model LP555DT	36 - Hp pump	36	Towed by tractor	hour	\$	18.50
8716	Leaf Vac	Tow by Truck 22,000 cfm capacity		85	Leaf Vac + Truck Code 8811	hour	\$	52.93
8717	Truck, Vacuum	60,000 GVW		400		hour	\$	76.72
8719	Litter Picker	model 2007 Barber		0	Towed by tractor	hour	\$	9.60
8720	Truck, Dump	Struck Capacity	8 CY	to 220		hour	\$	57.70
8721	Truck, Dump	Struck Capacity	10 CY	to 320		hour	\$	72.05
8722	Truck, Dump	Struck Capacity	12 CY	to 400		hour	\$	79.62
8723	Truck, Dump	Struck Capacity	14 CY	to 400		hour	\$	77.50
8724	Truck, Dump, Off Highway	Struck Capacity	28 CY	to 450		hour	\$	136.57
8725	Truck, Dump	Struck Capacity	18 CY	to 400		hour	\$	91.65
8730	Truck, Garbage	Capacity	25 CY	to 255		hour	\$	49.79
8731	Truck, Garbage	Capacity	32 CY	to 325		hour	\$	57.06
8733	E-BAM Services	Environmental Beta Attenuation Air Monitor		0	Powered by Solar System	hour	\$	3.07
8734	Attenuator, safety	that can stop a vehicle at 60 mph		0		hour	\$	5.64
8735	Truck, Attenuator	2004 Truck Mounted for 60 mph		0		hour	\$	3.89
8736	Truck, tow	1987 Chevy Kodiak 70		175		hour	\$	28.73
8744	Van, Custom	Special Service Canteen Truck		350		hour	\$	18.35
8745	Van, step	model MT10FD		300		hour	\$	22.05
8746	Van-up to 15 passenger	light duty, class 1		225-300		hour	\$	20.48
8747	Van-up to 15 passenger	light duty, class 2		225-300		hour	\$	20.77
8748	Van-cargo	light duty, class 1		225 - 300		hour	\$	22.44
8749	Van-cargo	light duty, class 2		225-300		hour	\$	22.68
8750	Vehicle, Small			to 30		hour	\$	6.41
8753	Vehicle, Recreational			to 10		hour	\$	2.87
8754	Motor Coach	GVW=50534	56 Passenger + 1-Driver	430	Passenger Transportation	Hour	\$	63.94
8755	Golf Cart	Capacity	2 person	0	Battery operated	hour	\$	3.80
8770	Welder, Portable			to 16	Includes ground cable and lead cable.	hour	\$	4.11
8771	Welder, Portable			to 34	Includes ground cable and lead cable.	hour	\$	7.21
8772	Welder, Portable			to 50	Includes ground cable and lead cable.	hour	\$	13.66
8773	Welder, Portable			to 80	Includes ground cable and lead cable.	hour	\$	13.75
8780	Truck, Water	Tank Capacity	2500 Gal	to 175	Include pump and rear spray system.	hour	\$	31.05
8781	Truck, Water	Tank Capacity	4000 Gal	to 250	Include pump and rear spray system.	hour	\$	56.57
8788	Container & roll off truck	Roll off Truck	30 yds,	200	Roll-off-Truck only	hour	\$	23.73
8789	Truck, Tractor	1997 Freightliner F120		430		hour	\$	56.81
8790	Truck, Tractor	4 x 2	25000 lbs	to 210		hour	\$	43.43
8791	Truck, Tractor	4 x 2	35000 lbs	to 330		hour	\$	47.57
8792	Truck, Tractor	6 x 2	45000 lbs	to 360		hour	\$	52.98
8794	Truck, freight	Enclosed w/lift gate. Medium duty class 5	gvwr 16000-19500 Lbs	200	4 X 2 Axle (D)	hour	\$	27.25
8795	Truck, backhoe carrier	Three axle, class 8, heavy duty	over 33000Lbs	280		hour	\$	34.56
8796	Truck, freight	Eenclosed w/lift gate. Heavy duty, class 7	26,001 to 33,000 lbs gvwr	217	4 X 2 Axle (D)	hour	\$	31.43
8798	Truck	Tilt and roll-back, two axle, class 7 heavy duty,	to 33,000 gvwr	217	4 X 2 Axle (D)	hour	\$	32.13
8799	Truck,	Tilt and roll back, three axle. class 8 heavy duty	over 33,001+ gvwr	280	6 X 4 Axle (D)	hour	\$	42.33
8800	Truck, Pickup				When transporting people.	mile	\$	0.545
8801	Truck, Pickup	1/2-ton Pickup Truck	4x2-Axle	160		hour	\$	12.78
8802	Truck, Pickup	1-ton Pickup Truck	4x2-Axle	234		hour	\$	17.91
8803	Truck, Pickup	1 1/4-ton Pickup Truck	4x2-Axle	260		hour	\$	21.10
8804	Truck, Pickup	1 1/2-ton Pickup Truck	4x2-Axle	300		hour	\$	23.22

Chainsaw Maintenance

Starting off right: What to know about your chain saw before hitting the jobsite



Beth Hyatt Presley | March 3, 2020

Totallandscapecare.com



Photo: Husqvarna

Maintenance schedules

When it comes to cleaning and maintaining your chain saw, Ben McDermott, product manager with Husqvarna, says users should not only perform a weekly and **monthly** check on their saws, but also one after every single use. “These products are designed to perform at optimal levels, and with simple maintenance, you can make sure you extend the life of your product and ensure you avoid costly repairs and possible product replacement,” says McDermott. When performing cleaning and maintenance after use, McDermott says to begin by cleaning all external parts of the saw with either a soft brush or a rag. When performing this cleaning, be sure to remove as much debris as possible to prevent buildup or debris intrusion into the engine. It’s also important to ensure the trigger and throttle lockout are both still working properly and are returned to position.



Photo: Beth Presley/Total Landscape Care

“Inspect anti-vibrating damping features to ensure they are functioning properly and are not obstructed,” says McDermott. “Clean and check the chain break to ensure it’s functioning properly, and check the chain catcher to ensure it is securely mounted to the saw.”

When checking the cutting **equipment**, McDermott says to make sure you are wearing gloves before starting the process. Begin by checking the guide bars to make sure the oil channels aren’t blocked and be sure to inspect the edges for burrs. If you find any burrs, they can be removed with a file. Remove any debris from the guide bar groove, and if the bar groove is worn out or damaged, be sure and replace it. Take a close look at the tip to ensure the sprocket spins and moves freely, as this can help keep debris and other obstructions away from the sprocket. “With respect to the guide

bar, turn it over and flip it after each use,” says McDermott. “That will help prolong the life of the guide bar and allow for even wear on both the top and bottom channels. If you don’t flip it or don’t turn it, you’ll get an uneven pattern of wear.”

Chain maintenance is crucial for this piece of machinery, and it’s important to sharpen the chain after each use to make sure cutting efficiency is at optimal levels. “If you observe any cracking or damage to the chain, specifically cracks, you should remove that chain and replace it,” says McDermott.

“Make sure your chain is flexible and easy to manipulate so it’s not so stiff, hardened or worn. Make sure the rivets aren’t worn out or appear to be coming loose.” When sharpening cutters, McDermott says to use a round file and file guides, and you can maintain proper cutting height by using a depth gauge or a flat file. If the chain is filed improperly, the force of kickback can increase, so McDermott says it’s important to maintain the proper filing angle and specified cutting height. “When the cutting tooth is worn, replace the chain,” says McDermott. “That’s usually highlighted by an indicator mark on the chain (4mm). If it does not rotate in idle, it may require a carburetor adjustment.”

Rounding out the list of daily maintenance, McDermott says to check the drive sprocket for everyday wear and tear, to clean the air intake on the starter, be sure that all hardware is in place and tightened and to inspect the muffler to ensure it hasn’t been damaged.

Along with the daily checklist, McDermott recommends the following tips when conducting a weekly (or after seven uses) chain saw checkup. To start, clean the cooling system by taking off the starter housing and cylinder cover to remove any sawdust or debris that has accumulated in the internal components. Next, take time to lubricate the bar and bearings according to the specifications recommended in the owner’s manual, clean the carburetor area, clean the spark arrestor mesh on the muffler and clean or replace the air filter. McDermott says to always put the unit in choke when replacing the air filter, as this will help keep debris from getting into the engine.

When performing **monthly** maintenance checks, McDermott says to clean and check the break band on the chain break, clean and replace the spark plugs, check or replace the fuel filter and hose, check all cables and connectors and finish off by emptying the fuel and oil tanks and replacing with fresh oil and fuel.

Ignition Resistant Construction Maintenance¹²

Tank Useful life is 40 years.³

Exterior inspection of the tank and well structures will take place monthly for two hours.

Description	Rate	Quantity	Recurrence	Costs
Utility Supervisor	\$68.24/hr	2 hrs	12 months	\$1,637.76
Utility Operator II	\$50.41/hr	2 hrs	12 months	\$1,209.84
Annual Total				\$2,847.60

Interior Tank Dive Inspection takes place once every 10 years.

Description	Rate	Quantity	Recurrence	Annualized Costs
Outsourced dive inspection	\$1,687	1 ea	4x	\$168.7
Utility Operator II	\$50.41/hr	6 hrs	4x	\$30.25
Annual Total				\$198.95

Minor Repairs to tank and well structures will take place once every 10 years and consists of gasket replacement, tightening bolts, and minor rust repair.

Description	Rate	Quantity	Recurrence	Annualized Costs
Utility Supervisor	\$68.24	20 hrs	4x	\$136.48
Utility Operator II	\$50.41	20 hrs	4x	\$100.82
Utility Technician	\$34.75	40 hrs	4x	\$139.
Annual Total				\$376.30

Re-Painting will take place every 20 years.

Description	Rate	Quantity	Recurrence	Annualized Costs
Outsourced Exterior painting	\$150,000	1 ea	Once	\$3,750.
Outsourced Interior painting	\$100,000	1ea	Once	\$2,500
Annual Total				\$6,250

$$\mathbf{\$2,847.60 + \$198.95 + \$376.30 + \$6,250 = \$9,673.}$$

¹ Based on Coastland Engineering figures "Tank Maintenance Cost"

² Pay Rate

³ Tank Useful life

**#1 Hidden Valley Lake CSD
Water Storage System Reliability Project
Maintenance Costs**

Task	Recurrence	Cost Assumptions	Costs per Recurrence	Total Cost over 50 Years
Exterior Tank Inspection	Annually	Inspection: Utility Supervisor: 6 hrs x \$62/hr Utility Operator II: 6 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 372.00 \$ 384.00 \$ 756.00	\$ 37,800.00
Interior Tank Inspection	Every 10 years	Dive inspection: Inspect (2) 250,000 gallong steel tank (\$1,687 ea) Utility Operator II: 12 hrs x \$64/hr <i>Total Cost per Recurrence</i>	\$ 3,375.00 \$ 768.00 \$ 4,143.00	\$ 20,715.00
Minor Repairs	Every 10 years	Replace gaskets/tighten bolts, minor rust repairs Utility Supervisor: 20 hrs x \$62/hr Utility Operator II: 20 hrs x \$64/hr Utility Worker: 40 hrs x \$39/hr Materials and equipment <i>Total Cost per Recurrence</i>	\$ 1,240.00 \$ 1,280.00 \$ 1,560.00 \$ 6,000.00 \$ 10,080.00	\$ 50,400.00
Re-Painting	Every 20 years	Exterior Repainting (\$150,000 each) Interior Repainting (\$100,000 each) <i>Total Cost per Recurrence</i>	\$ 300,000.00 \$ 200,000.00 \$ 516,080.00	\$ 1,032,160.00
Total Maintenance Costs over 50 Years				\$ 1,141,075.00
Maintenance Cost/Year				\$ 22,822.00



HVLCSD Defensive Space and Ignition Resistant Construction
(DSIRC) Pay Rates

DR4558-PJ398

#2

March 2, 2021

RE: Pay Rates

I hereby verify that the Pay Rates schedule below is a current and accurate depiction of wages and fringe benefit rates.

HOURLY LABOR COSTS		Current Step	* Employee Compensation							CalPERS	MEDICARE	TOTAL	
1 Employee		Hourly Wage	Health	Denatal	Vision	Life	Sick	Vacation	0.07	0.0145	hourly rate		
2 General Manager	Dennis	\$ 60.00	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.77	\$ 4.61	\$ 7.20	\$ 0.87	\$ 86.30	Dennis	
3 Admin Svrc Mgr	Penny	\$ 36.22	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.67	\$ 1.39	\$ 2.54	\$ 0.53	\$ 53.54	Penny	
5 Acct Supervisor	Trish	\$ 45.21	\$ 5.53	\$ 0.40	\$ 0.17	\$ 0.08	\$ 2.09	\$ 3.48	\$ 5.43	\$ 0.66	\$ 62.37	Trish	
6 Sr Acct Rep	Marty	\$ 31.25	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.44	\$ 1.20	\$ 2.19	\$ 0.45	\$ 47.80	Marty	
7 Acct Rep	Donna	\$ 21.82	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.01	\$ 0.84	\$ 1.53	\$ 0.32	\$ 40.58	Donna	
8 Project Manager	Alyssa	\$ 41.67	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.92	\$ 2.41	\$ 2.92	\$ 0.60	\$ 60.63	Alyssa	
9 Water Respirece	Hannah	\$ 28.11	\$ 5.53	\$ 0.19	\$ 0.12	\$ 0.08	\$ 1.30	\$ 1.08	\$ 1.97	\$ 0.41	\$ 38.39	Hannah	
10 Utility Supervisor	Barry	\$ 43.87	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 2.02	\$ 1.69	\$ 5.26	\$ 0.64	\$ 68.24	Barry	
11 OP II	Brandon	\$ 30.33	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 50.41	Brandon	
12 OP II	Nate	\$ 30.33	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 1.40	\$ 1.17	\$ 2.12	\$ 0.44	\$ 46.74	Nate	
13 OP I	Nik	\$ 24.70	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 1.14	\$ 0.95	\$ 2.96	\$ 0.36	\$ 45.14	Nik	
14 Utility Tech	Domminic	\$ 19.12	\$ 11.07	\$ 0.40	\$ 0.17	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 34.75	Dominic	
15 Utility Tech	Russell	\$ 19.12	\$ 14.38	\$ 0.71	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 1.34	\$ 0.28	\$ 37.46	Russell	
16 Utility Tech	Jesse	\$ 19.12	\$ 14.38	\$ 0.40	\$ 0.22	\$ 0.08	\$ 0.88	\$ 0.74	\$ 2.29	\$ 0.28	\$ 38.11	Jesse	
Utility Tech	Vacant	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ -	\$ -	\$ -	\$ -	\$ 0.08	Vacant	
** Red number indicates PEPR class													

Trish Wilkinson

Trish Wilkinson
Accounting Supervisor
Hidden Valley Lake Community Services District

#3

LIFE CYCLE COST

Prospective water tank owners have a multitude of options and details when planning the construction of a new storage tank. The following Comparison illustrates the differences between both Bolted Steel (Fusion Bonded Epoxy) and Bolted Steel (Glass/Vitreous) water storage tanks. The best storage tanks are designed, manufactured and installed as major infrastructure projects. As a starting point, the minimum service life of a storage tank use to be considered 40 years. Today's storage industry, we find tanks that are being introduced into the market that will provide less than a 10 to 20 year service life and other products that will provide service in excess of 60 to 80 years. All of these products have an initial investment by construction type, but when the life cycle costs are added, the quality of the products will reflect the true value of the tank.

The measurement of coating performance must be viewed from two perspectives – Laboratory Conditions versus Real World Conditions.

Laboratory conditions using performance attributes such as hardness, thickness, film continuity, abrasion resistance, impact strength, elasticity, flexibility and adhesion strength are measured through the use of testing protocol as specified in various ASTM standards. These standards are established to quantify each physical characteristic of the coating system but do not establish a correlation between the physical characteristic and its ability to contribute to the long term serviceability of the coating system in a specific service environment. By looking at a comparison of some of the physical characteristics of fusion bonded epoxy coatings and glass linings it becomes obvious that these materials are drastically different. (See Chart Below)

Compare The Facts (Bolted Fusion Bonded Epoxy vs. Bolted Glass/Vitreous Enamel)

Tank Type	Vertical Rolled, Flanged panel	Horizontal Rolled, Tapered Panel
Panel Size	8.5' tall x 5' long	4.5' tall x 9' long
Plate Design	30 +	30 +
Service Life	40+ years	30 - 40 years
Edge Protection	Complete edge coverage	Poor and inconsistent
Bolt Holes	Complete hole coverage	Covered with sealant in the field
Coating Thickness	7 -11 mils	8 - 13 mils (due to high shop defect)
Temp. Tolerance	200° F water, Dry 300° F	140° F water, Dry N/A
Flexibility	Passes 1/8" mandrel test	None (cannot be field repaired)
Impact	160 in/lbs	4 in/lbs
Salt Spray	Passes 7500 hours	Passes 7500 hours
Sealant	Vulkem	Mastic
Gasket	EPDM & BUNA	None



9500 Lucas Ranch Road
Rancho Cucamonga, CA 91730
P. 909.912.0580 | F. 909.912.0588 | Toll Free. 800.221.TANK

Glass linings are over twice as thick and are significantly harder and more abrasion resistant in comparison to fusion bonded epoxy coatings. Glass linings also possess adhesive and cohesive tensile strengths that significantly exceed fusion bonded epoxy systems. A laboratory performance comparison using the appropriate ASTM testing methods would certainly suggest that the fusion bonded epoxy was inferior to the glass lining system in these areas. Conversely the fusion bonded epoxy coatings are significantly more flexible and elastic but this is the only performance category that promotes the use of fusion bonded epoxy in place of glass linings.

In the real world, where performance is judged by service life expectations within a specific service environment, the glass lining and fusion bonded epoxy comparison must be judged from a water immersion perspective. In this type of service environment, the vast majority of superior physical characteristics associated with glass linings are underutilized. The water immersion service environment does not subject the coating system to erosion or abrasion sources or impacts originating from the interior of the tank therefore superior coating thickness, hardness, adhesion and impact strength are of minimal importance once a minimum performance baseline has been established and exceeded. If the performance baseline is predicated on the performance levels of the various coating systems approved for use in the AWWA D.102-06 Standard, both glass linings and fusion bonded epoxy systems far exceed these criterion. When physical performance characteristics that directly align with a water immersion environment (within a tank) are compiled and evaluated, characteristics such as water permeability, flexibility, elasticity and film continuity become critically important. These attributes are individually reviewed as follows:

- Water permeability resistance with either system is similar and is considered to be far superior to the coating systems recommended in the AWWA D.102-06.
- Film continuity and/or the absence of localized coating voids is achieved in the glass lining process through the use of thicker lining material with special provisions employed of plate edges and holes. The fusion bonded epoxy coatings use electrostatic spray operations to oppositely charge the substrate and coating to electrically attract the coating to the substrate and achieve 100% coverage. In both cases, holiday detection equipment is used in accordance with NACE RPO 188 to insure a complete and discontinuity free coating system. On this basis, both systems will uncompromisingly achieve a continuous film capable of achieving barrier protection.
- Flexibility and elasticity capabilities allow the coating to move in conjunction with the natural flexing and movement of the steel plates. This capability is vital during tank filling and draining cycles but is also applicable to localized deformations resulting from rock throwing, bullet impacts or other damage to the tank. Additionally, temperature variations and the associated expansion and contraction of the tank and its contents further emphasize the importance of using a flexible coating system. The flexibility and elasticity of the thinner fusion bonded coating system is unquestionably significantly superior to the rigid glass liner.

On this basis, the fusion bonded epoxy coating system exceeds each physical performance criterion deemed necessary to maximize service life expectations in a water immersion environment. When additional "real world" conditions are included such as the potential for corrosion to undercut the glass lining, the difficulty associated with detecting the undercutting and the potential for structural compromises in cases of serious corrosion degradation, the service life expectations are dramatically reduced when glass lining is involved.

HVLCSD Resolution 2021-01

**DESIGNATION OF SUBRECIPIENT'S AGENT RESOLUTION
Hazard Mitigation Grant Program and Pre-Disaster Mitigation Program**

BE IT RESOLVED BY THE Board of Directors OF THE Hidden Valley Lake Community Services District
(Governing Body) (Name of Applicant)

THAT _____, **General Manager**, OR
(Title of Authorized Agent)
_____, **Project Manager**
(Title of Authorized Agent)

is hereby authorized to execute for and on behalf of the Hidden Valley Lake Community Services District, a public entity established under the laws of the State of California, this application and to file it with the California Governor's Office of Emergency Service, for the purpose of obtaining certain federal financial assistance under Public Law 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, and/or state financial assistance under the California Disaster Assistance Act.

THAT the Hidden Valley Lake Community Services District, a public entity established under the laws of the State of California, hereby authorized its agent(s) to provide to the California Governor's Office of Emergency Service for all matters pertaining to such state disaster assistance the assurances and agreements required.

Please check the appropriate box below:

This is a universal resolution and is effective for all open and futures Disasters/Grants up to three (3) years following the date of approval below.

This is a Disaster/Grant specific resolution and is effective for only Disaster/Grant name/number(s) _____

Passed and approved this 19th day of January, 2021

Jim Freeman, President

(Name and Title of Governing Body Representative)

Claude Brown, Director, Board of Directors

(Name and Title of Governing Body Representative)

Gary Graves, Director, Board of Directors

(Name and Title of Governing Body Representative)

Jim Lieberman, Director, Board of Directors

(Name and Title of Governing Body Representative)

Sean Millerick, Director, Board of Directors

(Name and Title of Governing Body Representative)



CERTIFICATION

I, Jim Freeman, (Name) _____, duly appointed and President to the Board of Directors (Title) _____ of

Hidden Valley Lake Community Services District, (Name of Applicant) do hereby certify that the above is a true and correct copy of a

Resolution passed and approved by the Board of Directors (Governing Body) of the Hidden Valley Lake Community Services District (Name of Applicant)

on the 19th, day of January 2021.

(Signature)

President
(Title)

Hidden Valley Lake and and CalFire Fire Hazard Severity Zones

Fire Hazard Severity Zones

Class

- High
- Moderate
- Very High
- <all other values>

Tank 4A

0 0.25 0.5 1 Miles



Memorandum

Date: February 15, 2019
To: Alyssa Gordon
From: Jenny Melman, PE
Subject: Fire History of Lake County

Fire History of Lake County

Wildfire is a major hazard for the Hidden Valley Lake community. More than 50% of Lake County has burned since 2012¹.

“No other county in California has experienced wildfires more frequently in the past seven years, on such a stunning scale of both size and destruction’, said state Sen. Mike McGuire, who represents [Lake County] with 68,000 residents.

‘There is no other county in the Golden State that has received such a devastating blow when it comes to wildland disaster,’ McGuire said Tuesday as he surveyed yet another disaster unfolding in his district. ‘The people of Lake County have suffered significantly.’”²

The hazards of wildfire include the wholesale destruction of communities as we saw recently in Paradise, California, the taking of life, destruction of homes and property, and the cause of prolonged utility disruption. Table 1 provides a brief description of ten of these fires and the damages incurred. Figure 1 shows the proximity of these fires to Hidden Valley Lake.

¹ From LA Times: <https://www.latimes.com/local/lanow/la-me-lake-county-fire-epicenter-20180814-story.html>

² From the Press Democrat: <https://www.pressdemocrat.com/news/8475008-181/wildfire-a-frequent-and-familiar?gallery=8479208&sba=AAS>

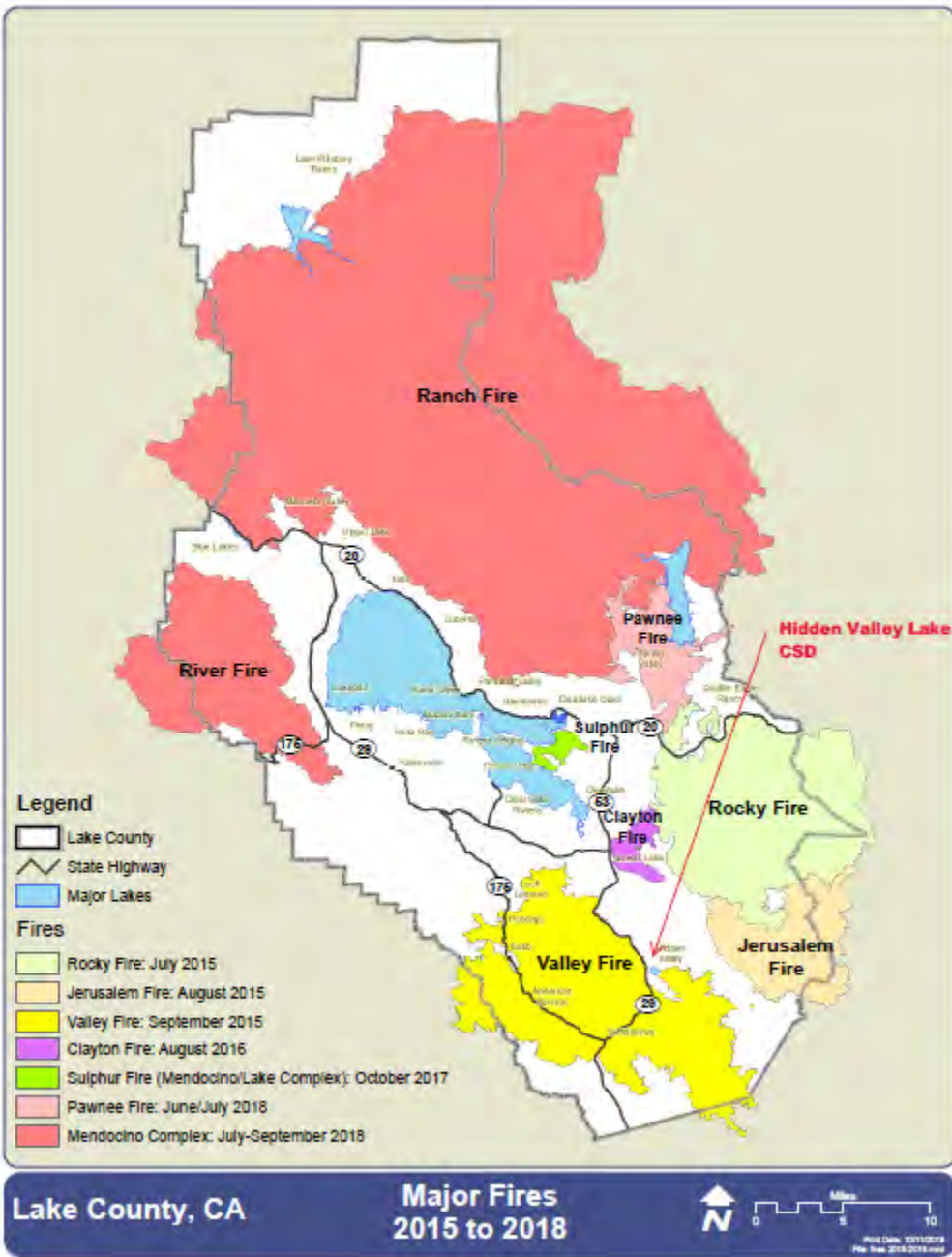
Table 1. Lake County Fires (2012-present)³

2018
Ranch Fire: 51,539 acres between Highway 20 and the Mendocino National Forest, including Blue Lakes, Witter Springs, Bachelor Valley, Upper Lake, Lucerne and Nice.
River Fire: 28,869 acres, 10 structures destroyed near Kelseyville and other communities.
Pawnee Fire: 13,000 acres, 22 structures destroyed in Spring Valley.
2017
Sulphur Fire: 2,207 acres, 162 structures destroyed, mostly homes.
2016
Clayton Fire: 4,000 acres, 300 homes and business in greater Lower Lake.
2015
Rocky Fire: 69,000 acres, 43 homes, 53 outbuildings east of Clear Lake.
Jerusalem Fire: 25,000 acres, six homes, 21 outbuildings northeast of Middletown.
Valley Fire: 76,000 acres, 1,300 homes, 27 multi-family buildings, 66 businesses and 581 outbuildings. The fire, which stretched from Cobb Mountain to Hidden Valley Lake, killed five people.
2012
Wye-Walker Fire: 8,000 acres, two homes east of Clear Lake.
Scotts Fire: 4,700 acres, Cow Mountain, five injuries.

³ From the Press Democrat: <https://www.pressdemocrat.com/news/8584552-181/top-10-largest-wildfires-in?sba=AAS>



Figure 1. Lake County Fires (2015-2018)⁴



Since 1985, FEMA has made 8 disaster declarations for Lake County due to wildfire, five of which occurred since 2015.⁵

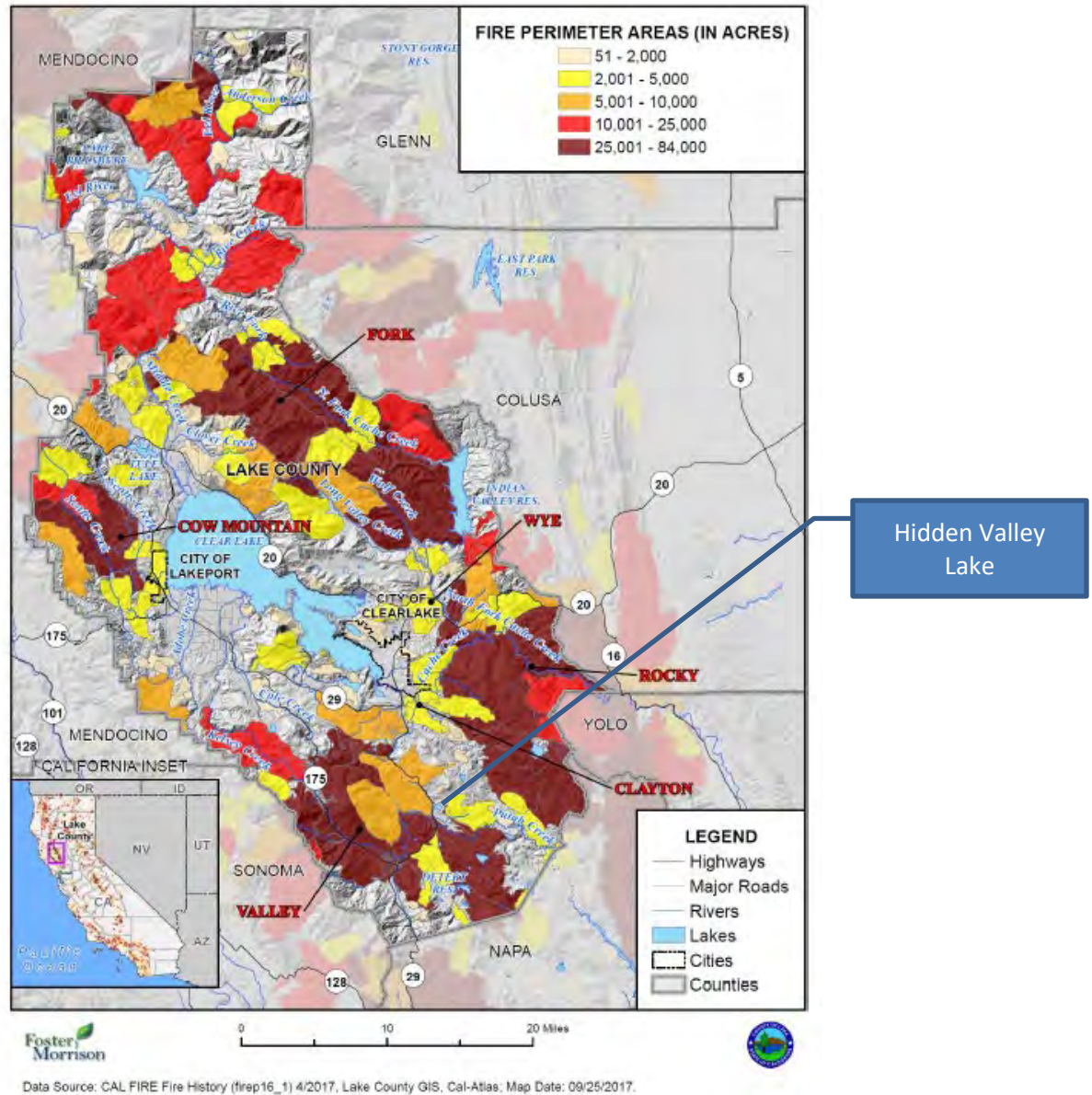
The burn scars from recorded Lake County fires are shown in Figure 2.

⁴ County of Lake, Major Fires 2015 to 2018, print date 10/11/18.

⁵ Lake County Hazard Mitigation Plan Update, 2018. Pg. 4-138.



Figure 2. Lake County Wildfire History – 1950 to 2016⁶



The Likelihood of Future Occurrence

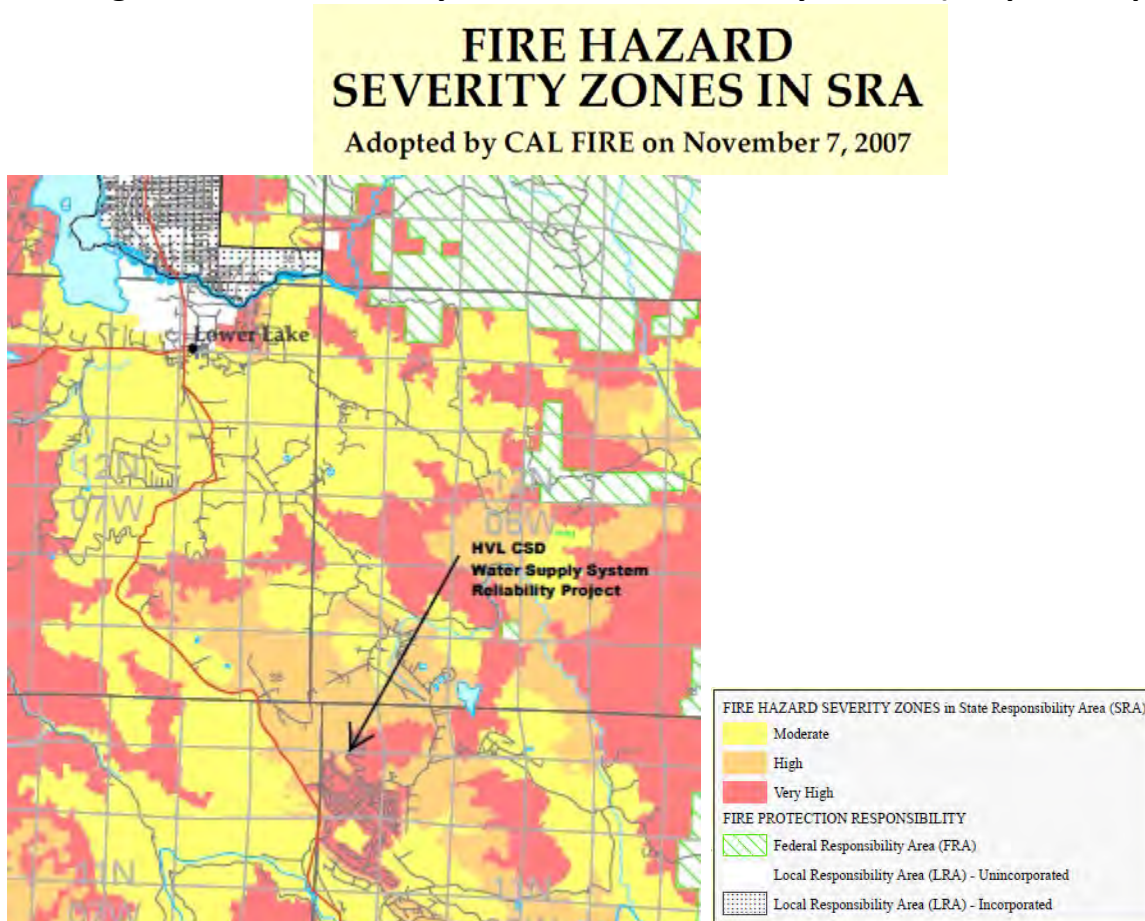
As shown in Figure 3, CalFire has designated Hidden Valley Lake as a “High Severity” fire risk zone.

⁶ Lake County Hazard Mitigation Plan Update, 2018. Pg. 4-140.



“From May to October of each year, Lake County faces a serious wildland fire threat. Fires will continue to occur on **an annual basis** in the Lake County Planning Area. The threat of wildfire and potential losses are constantly increasing as human development and population increase and the wildland urban interface areas expand. Due to its high fuel load and long, dry summers, most of Lake County continues to be at risk from wildfire.”⁷

Figure 3. Lake County Fire Hazard Severity Zones (Map Excerpt)



Climate Change and Wildfire

“Warmer temperatures can exacerbate drought conditions. Drought often kills plants and trees, which serve as fuel for wildfires. Warmer temperatures could increase the number of wildfires and pest outbreaks, such as the western pine beetle. Cal-Adapt’s wildfire tool predicts the potential increase in the amount of burned areas for the year 2085, as compared to recent (2010) conditions. Based on this model, Cal-Adapt predicts that wildfire risk in lake County will increase slightly in the near term.”⁸

⁷ Lake County Local Hazard Mitigation Plan Update, 2018, pg 4-147.

⁸ Lake County, 2018, pg. 4-147.



DEFENSIBLE SPACE DESIGN #2

WEED ABATEMENT-2019 Notice to Home & Lot Owners

It is fire fuel reduction time again. You are welcome to contract with a private firm or perform the work yourself. However, if you wish to obtain a quote from a company that will be providing weed abatement services to Hidden Valley Lake Association on common areas and to many of the owners of **vacant lots**, please complete and return the bottom portion of this notice to Hidden Valley Lake Association before April 1, 2019. Upon notification from you, we will request that the company provide a quote. **Improved lot owners should make their own arrangements**

The deadline to complete weed abatement is June 15. Inspections will begin on June 16, 2019 and will be conducted on the entire lot, front yard and back yard. Please refer to the March, April, May or June Views for guidelines to which your lot must be abated.

This notice constitutes required notification of Fire Fuel Reduction requirements for the year of 2019. **There will be ONE INSPECTION beginning on June 16, 2019** Properties failing to meet abatement standards will be subject to a \$300 fine. In addition, the property may be abated by the company providing weed abatement services to Hidden Valley Lake Association (reimbursement assessment, as set forth in Board Resolution 2017-23). The cost of the weed abatement services will be charged to your account.

PLEASE UNDERSTAND CLEARLY THAT HVLA IS CHARGED BY OUR CC&R'S TO REQUIRE YOUR ACTION. THERE WILL BE NO GRACE PERIOD.

Abatement Notice & Enforcement Procedure

Quote for abatement of unimproved property by company providing HVLA with Weed Abatement services: mailing of notice

1st Notice of Deadline—March Views

2nd Notice of Deadline—April Views

3rd Notice of Deadline—May Views

4th Notice of Deadline—June Views

Deadline, June 15—Inspection on June 16—No Grace Period

Notice of Fine: June/July mailing • Assessment of Fine: July/August statement
Properties failing to meet abatement standards will be subject to a \$300 fine, \$500 for repeat offenders. In addition, the property may be abated by the company providing weed abatement services to Hidden Valley Lake Association (reimbursement assessment, as set forth in Board Resolution 2017-23). The cost of the weed abatement services will be charged to your account. A reimbursement assessment shall be a continuing lien upon the property against which each such assessment is made per HVLA CC&Rs, Section 7.01.

Weed Abatement GUIDELINES

One hundred percent (100%) of each lot must be abated to the following standards by June 15 of each year.

- All grass and weeds must be cut. Height shall be no more than three (3") inches at time of inspection. Spraying and scraping is prohibited due to erosion and environmental concerns.
- Brush is to be trimmed and thinned with all dead material removed. There must be some open space between brush.
- Tree growth, inclusive of branches, must be trimmed up at least six (6') feet from the ground or one-third (1/3) of the tree height, except evergreens.
- All dead material must be removed. Tree limbs and branches are to be trimmed well away from roof and chimney areas
- Roof surfaces are to be kept free of accumulation of leaves, needles, twigs and any other combustible material.
- All vegetation and debris must be removed or stacked in the right of way for chipping in accordance with HVLA's chipping procedure.
- There will be one (1) inspection on June 16. Pictures of your property will be taken. If your property does not meet fire fuel reduction standards upon this inspection, you will be fined. **There will be no grace period.**
- Properties failing to meet abatement standards will be subject to a \$300 fine, \$500 for repeat offenders. In addition, the property may be abated by the company providing weed abatement services to Hidden Valley Lake Association (reimbursement assessment, as set forth in Board Resolution 2017-23). The cost of the weed abatement services will be charged to your account.
- A reimbursement assessment shall be a continuing lien upon the property against which each such assessment is made per HVLA CC&Rs, Section 7.01.

*Please mail me a quote from the company that provides weed abatement services to HVLA to weed abate my **vacant lot**.
I understand this company will not weed abate my vacant lot until HVLA receives payment in full for abatement services.*

Date: _____ *UBL: _____

*Name of Requesting Party _____

*HVLA Address _____

City/State/ZIP _____

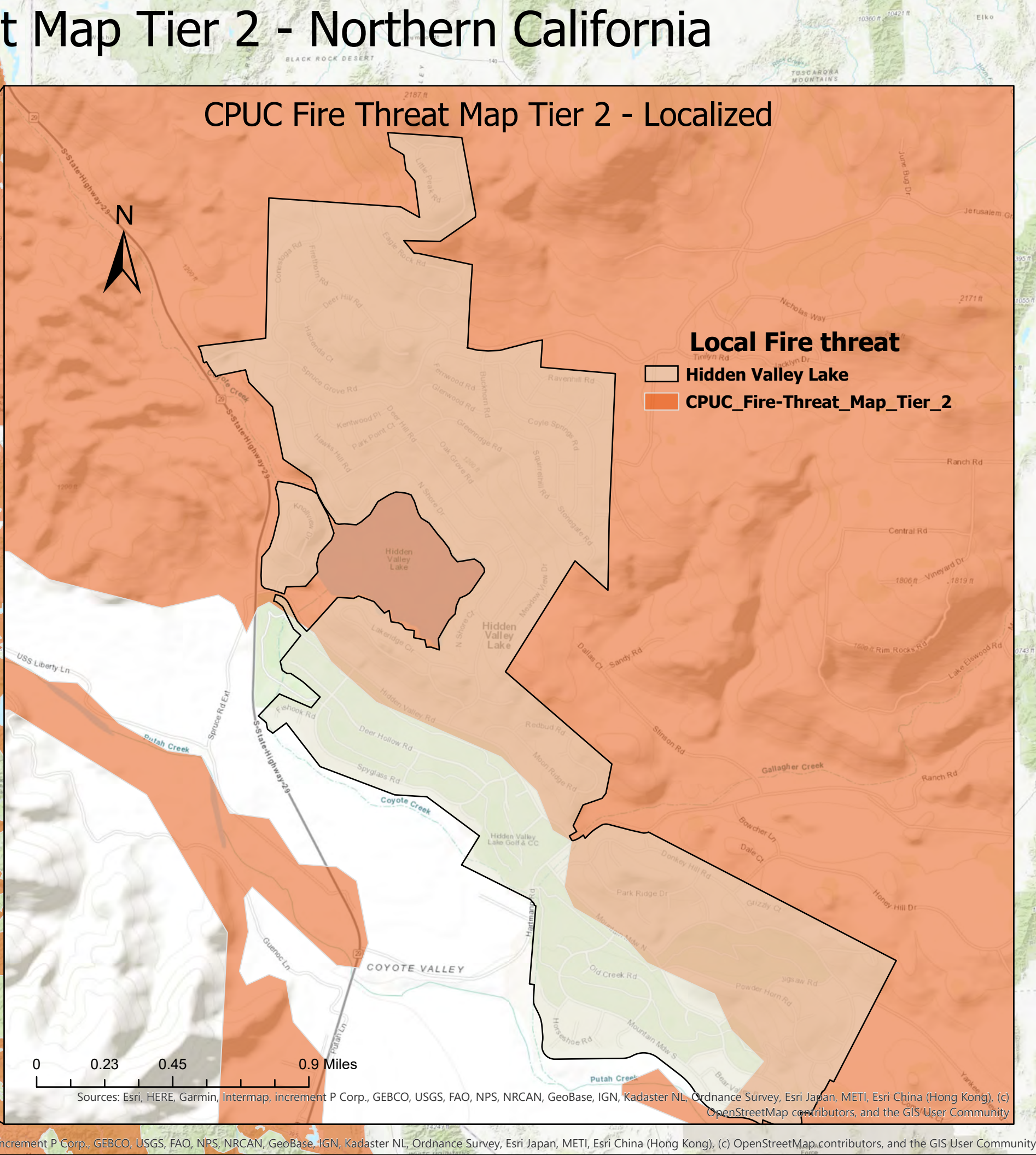
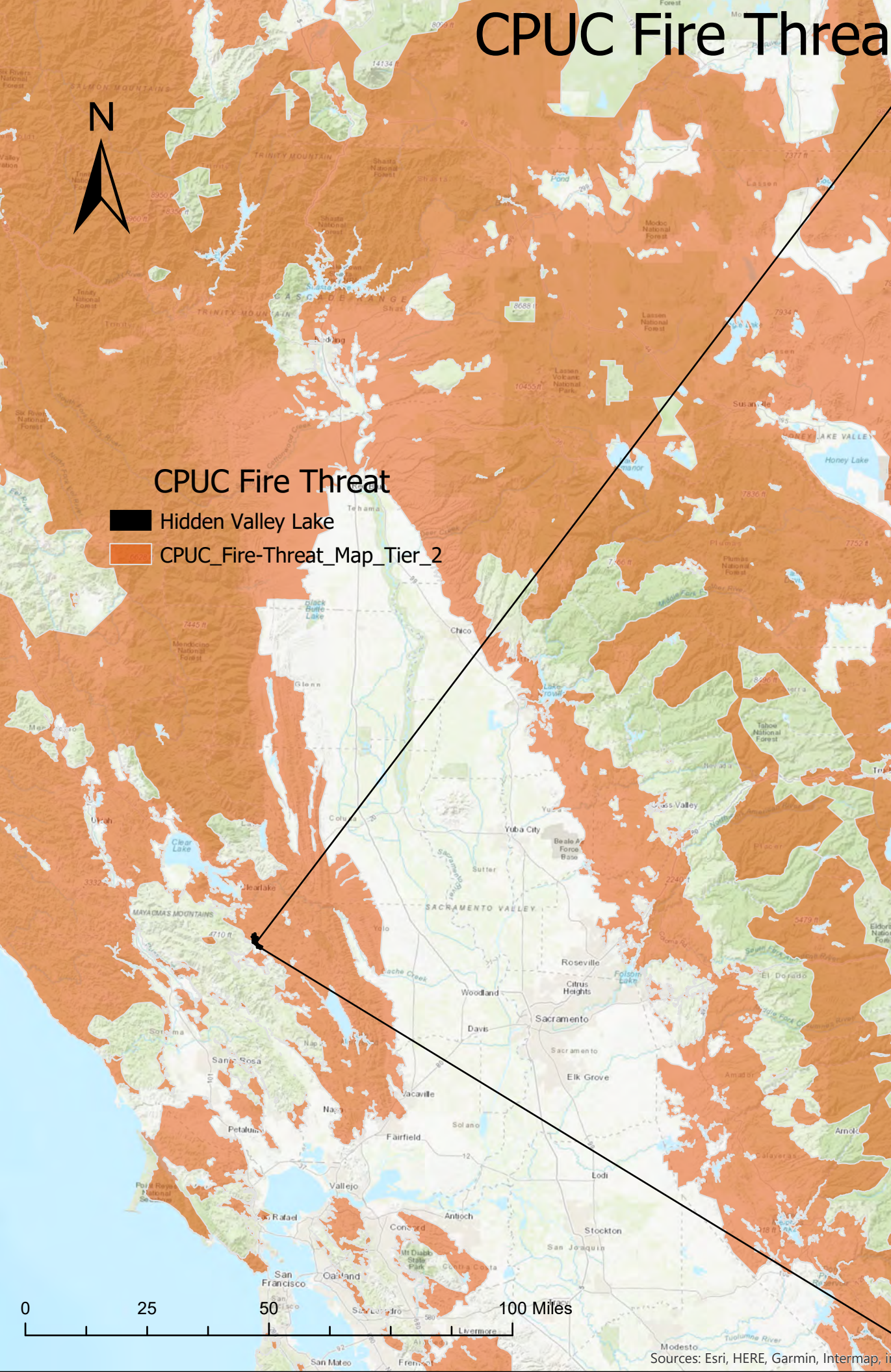
Mailing Address _____

*Contact Phone Number _____ *Email Address: _____

*Signature _____ *Minimum Required Information

VACANT LOT OWNERS

CPUC Fire Threat Map Tier 2 - Northern California





NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

PUBLIC EDUCATION

Public Education / Fire causes & risks / Wildfire / Preparing homes for wildfire

Preparing homes for wildfire

Select Language ▾

What are the primary threats to homes during a wildfire?

Research around home destruction vs. home survival in wildfires point to embers and small flames as the main way that the majority of homes ignite in wildfires. Embers are burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind can cause spot fires and ignite homes, debris and other objects.

There are methods for homeowners to prepare their homes to withstand ember attacks and minimize the likelihood of flames or surface fire touching the home or any attachments. Experiments, models and post-fire studies have shown homes ignite due to the condition of the home and everything around it, up to 200' from the foundation. This is called the Home Ignition Zone (HIZ).

Learn more about how wildfires spread and ignite home in our online course [Understanding the Wildfire Threat to Homes. An overview of fire history, fire basics, and how homes burn.](#)

Get informed



How to prepare your home for wildfire

Get some wildfire risk reduction steps that can make your home safer during a wildfire.

Download the fact sheet.

Como preparar su casa contra incendios forestales

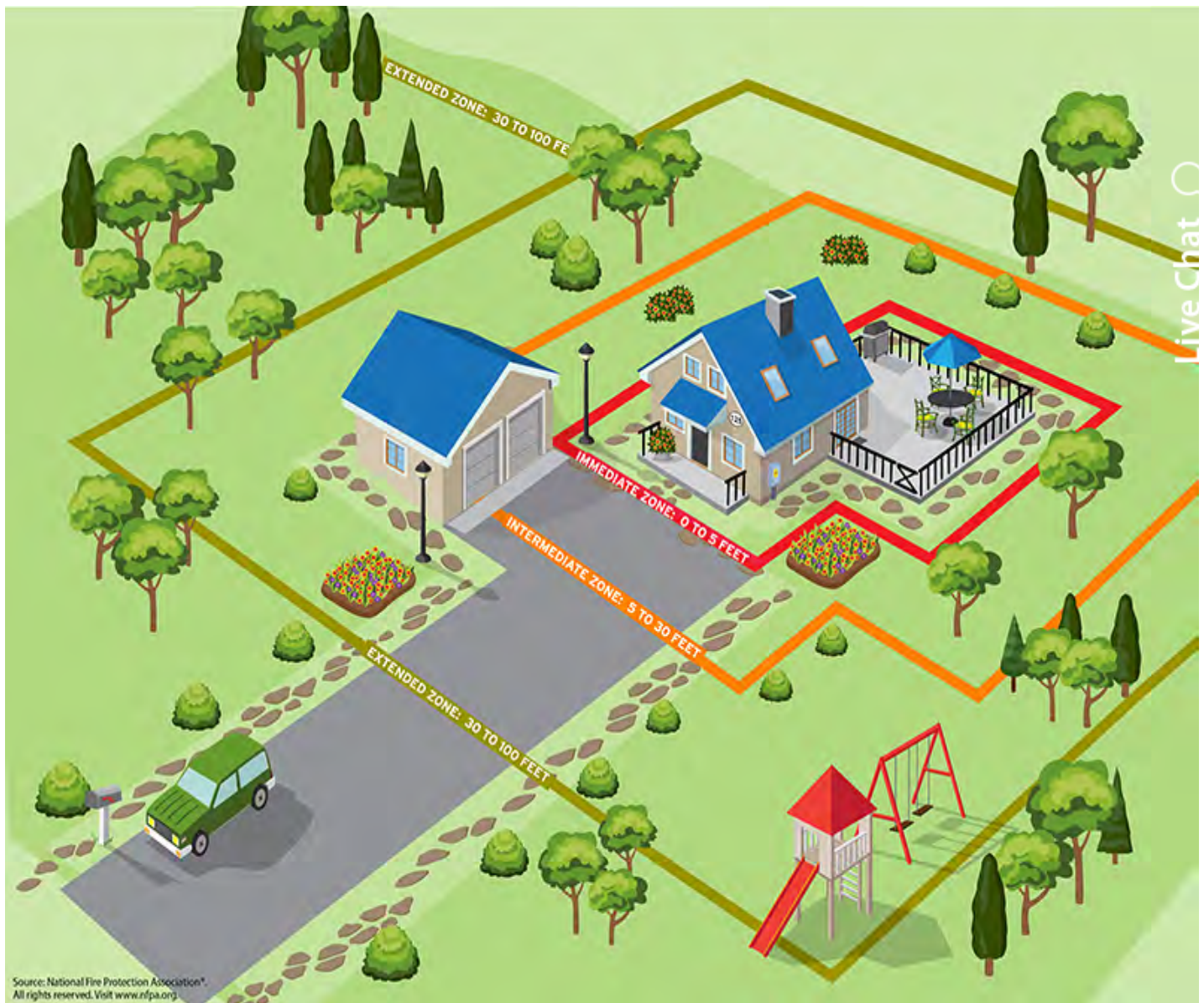
This fact sheet is also available in Spanish.

Download the fact sheet.



What is the Home Ignition Zone?

The concept of the home ignition zone was developed by retired USDA Forest Service fire scientist Jack Cohen in the late 1990s, following some breakthrough experimental research into how homes ignite due to the effects of radiant heat. The HIZ is divided into three zones.



Source: National Fire Protection Association®. All rights reserved. Visit www.nfpa.org.

Live Chat

Immediate zone

The home and the area 0-5' from the furthest attached exterior point of the home; defined as a non-combustible area. Science tells us this is the most important zone to take immediate action on as it is the most vulnerable to embers. **START WITH THE HOUSE ITSELF** then move into the landscaping section of the Immediate Zone.

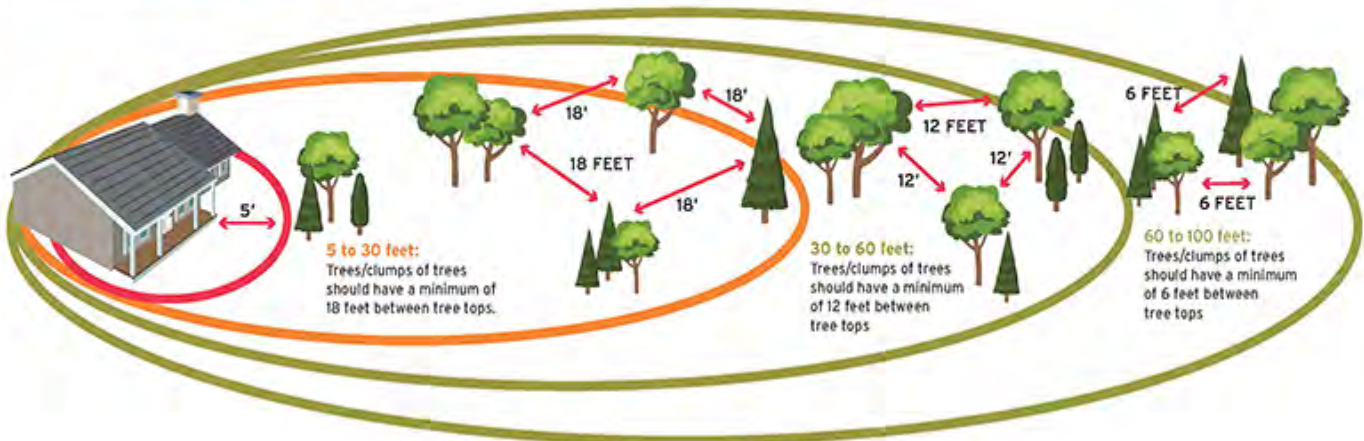
- Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers.
- Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration.
- Reduce embers that could pass through vents in the eaves by installing 1/8 inch metal mesh screening.
- Clean debris from exterior attic vents and install 1/8 inch metal mesh screening to reduce embers.
- Repair or replace damaged or loose window screens and any broken windows. Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating.
- **Move any flammable material away from wall exteriors** – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. Remove anything stored underneath decks or porches.

Intermediate zone

5-30' from the furthest exterior point of the home. Landscaping/hardscaping- employing careful landscaping or creating breaks that can help influence and decrease fire behavior

- Clear vegetation from under large stationary propane tanks.
- Create fuel breaks with driveways, walkways/paths, patios, and decks.
- Keep lawns and native grasses mowed to a height of four inches.
- **Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to six to ten feet from the ground; for shorter trees do not exceed 1/3 of the overall tree height.**
- **Space trees to have a minimum of eighteen feet between crowns with the distance increasing with the percentage of slope.**
- Tree placement should be planned to ensure the mature canopy is no closer than ten feet to the edge of the structure.
- **Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.**

TREE SPACING



Extended zone

30-100 feet, out to 200 feet. Landscaping – the goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground.

- Dispose of heavy accumulations of ground litter/debris.

- Remove dead plant and tree material.
- Remove small conifers growing between mature trees.
- Remove vegetation adjacent to storage sheds or other outbuildings within this area.
- Trees 30 to 60 feet from the home should have at least 12 feet between canopy tops.*
- Trees 60 to 100 feet from the home should have at least 6 feet between the canopy tops.*



**The distances listed for crown spacing are suggested based on NFPA 1144. However, the crown spacing needed to reduce/prevent crown fire potential could be significantly greater due to slope, the species of trees involved and other site specific conditions. Check with your local forestry professional to get advice on what is appropriate for your property.*

HOME IGNITION ZONE CHECKLIST

SIMPLE STEPS FROM ROOF TO FOUNDATION TO MAKE A HOME SAFER FROM EMBERS AND RADIANT HEAT

- Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers
- Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration
- Reduce embers that could pass through vents in the eaves by installing 1/8 inch metal mesh screening
- Clean debris from exterior attic vents and install 1/8 inch metal mesh screening to reduce embers
- Repair or replace damaged or loose window screens and any broken windows
- Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from

accumulating

-  Move any flammable material away from wall exteriors - mulch, flammable plants, leaves and needles, firewood piles - anything that can burn
-  Remove anything stored underneath decks or porches

VISIT [FIREWISE.ORG](https://www.firewise.org) FOR MORE DETAILS

Image by NFPA, with funding from USDA Forest Service

Questions? [Contact the Firewise team.](#)

How to protect your home



How to Prepare Your Home for Wildfires Brochure (English or Spanish)

The *How to Prepare Your Home for Wildfires Brochure* highlights steps residents need to take to prepare for wildfires.

More Info

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RESOLUTION 2014-11

**RESOLUTION OF THE HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS AUTHORIZING GENERAL MANAGER ROLAND
SANFORD TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH
COASTLAND CIVIL ENGINEERING INCORPORATED FOR ENGINEERING
SERVICES, ON A TASK ORDER BASIS**

WHEREAS, the Hidden Valley Lake Community Services District (District) occasionally requires engineering expertise to design, operate and/or maintain District facilities; and

WHEREAS, the District desires to contract for such services with a private consultant; and

WHEREAS, Coastland Civil Engineering Incorporated is duly licensed and sufficiently experienced in providing such services for municipal corporations and community services districts and is able to provide personnel with the proper experience and background to carry out the duties involved; and

WHEREAS, the District wishes to retain Coastland Civil Engineering Incorporated for the performance of such services.

NOW, THEREFORE, BE IT RESOLVED that the Hidden Valley Lake Community Services District Board of Directors authorizes General Manager Roland Sanford to execute a Professional Services Agreement with Coastland Civil Engineering Incorporated for engineering services, on a task order basis.

PASSED AND ADOPTED on July 15, 2014 by the following vote:

AYES: DIRECTORS GRAHAM, HERNDON, FREEMAN, LIEBERMAN AND MIRBEGIAN

NOES: NONE

ABSTAIN: NONE

ABSENT: NONE

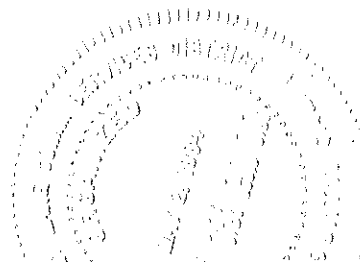


Judy Mirbegan
President of the Board of Directors

ATTEST:



Roland Sanford
Secretary to the Board of Directors



**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: Water Mains

RECOMMENDATIONS: Staff to continue to keep committee members informed of project progress.

FINANCIAL IMPACT: \$30,000/\$500,000

FUND: 130/320

BACKGROUND:

On 2/2/21, the BOD approved GHD's proposal to assist with the development of an HMGP Water Mains Subapplication for \$29,900. This Subapplication was submitted to CalOES on 3/5/21 (See attached).

The scope has changed quite a bit since the Notice of Intent (NOI) was approved on 1/15/21. Originally this project was intended to operate in parallel with the Trane's FLASHES project. Once the FLASHES project was delayed, the initial scope of the Water Mains project was no longer viable. In order to meet the 3/5/21 deadline for HMGP Subapplications, some re-work was needed.

Subsequent discussions with CalOES support, FEMA consultants and GHD revealed an option within the current HMGP funding mechanism, called Advanced Assistant. It is a new term for a FEMA sponsored funding mechanism that the District used to help finance the LHMP. By changing the scope of the Water Mains project from construction to planning, the District was now eligible to submit a Subapplication.

This planning project, if approved by FEMA will deliver hydraulic analysis, 30% design drawings, technical specifications and a Benefit Cost Analysis of a Water Main replacement project to protect against seismic events. This represents the planning that is needed for a large water main construction project. The Advanced Assistant program will allow the District to split the planning and construction activities and costs into two separate projects. The period of performance plan for the planning project is 36 months, which will help the Water Main construction project align better with the FLASHES project once again. GHD also agreed that the cost for this effort could be reduced to \$.5M. This makes the District match commitment only \$125,000.

HAZARD MITIGATION GRANT PROGRAM PLANNING SUBAPPLICATION

DISASTER NUMBER:

DR-4558

JURISDICTION NAME:

Hidden Valley Lake Community Services
District

PLAN TITLE:

HVLCSD Water Distribution System Reliability
Planning Project

CONTROL NUMBER:

DR-4558-0428

THE CONTROL NUMBER IS RECEIVED AT TIME OF SUCCESSFUL NOI SUBMITTAL



Cal OES

**GOVERNOR'S OFFICE
OF EMERGENCY SERVICES**

3650 SCHRIEVER AVENUE | MATHER, CA 95655
RECOVERY SECTION | HAZARD MITIGATION ASSISTANCE BRANCH
PHONE: (916) 845-8200 | FAX: (916) 845-8387



HAZARD MITIGATION GRANT PROGRAM (HMGP) INTRODUCTION

Introduction

As a result of a major disaster declaration by the President of the United States, the State of California is eligible for HMGP funding. The State establishes priorities to accept subapplications from subapplicants state-wide including state agencies, federally recognized tribes, local governments, and Private Non-Profits (PNPs), consistent with Title 44, Chapter I, Part 206, Subpart H, §206.221.

Eligible hazard mitigation activities are intended to reduce or eliminate damages to life and improved property. Activities include hazard mitigation plans approvable by the Federal Emergency Management Agency (FEMA).

Regulations

Federal funding is provided under the authority of the [Robert T. Stafford Emergency Assistance and Disaster Relief Act \(Stafford Act\)](#) through FEMA and the California Governor’s Office of Emergency Services (Cal OES). Cal OES is responsible for identifying program priorities, reviewing subapplications and forwarding recommendations for funding to FEMA. FEMA has final approval for activity eligibility and funding.

The federal regulations governing HMGP are found in Title 44 of the Code of Federal Regulations (44CFR), Part 201 (Planning) and Part 206 (Projects) and in Title 2 of the Code of Federal Regulations (2CFR), Part 200 (Uniform Administrative Requirements).

The subapplicant is responsible for complying with the regulations set forth in the California Environmental Quality Act (CEQA) (California Code of Regulations, Title 14, Division 6, Chapter 3, and Sections 15000–15387) and any other state/local permits or requirements.

FEMA Guidance

FEMA requires that all plans adhere to the [Local Mitigation Planning Handbook 2013](#) and [Hazard Mitigation Assistance Unified Guidance 2015](#).

Time Extensions

Time extensions may be requested, and will be evaluated on a case-by-case basis. Please consult Cal OES for direction prior to making the request. To request additional time to submit a subapplication, send an email to the HMA@caloes.ca.gov mailbox. The subject line must include: “Subapplication Time Extension Request (include Disaster Number and Control Number)”. The body of the message must include justification and specific details supporting why additional time is needed and how much additional time is requested.

Questions

Submit all HMGP subapplication questions to the following mailbox: HMA@caloes.ca.gov

HMGP ELIGIBILITY CHECKLIST

Before completing the subapplication, review the following HMGP eligibility checklist to ensure the planning subapplication meets the requirements for HMGP funding.

- Cost Share:** Cal OES will not accept subapplications with a requested federal share that exceeds \$150,000 for a single jurisdiction mitigation plan or \$250,000 for a multi-jurisdictional mitigation plan. Other approved planning-related activities are approved on a case by case basis for up to \$150,000. Funds are provided on a 75/25 cost share basis: 75% federal and 25% non-federal cost share. Local funding match of 25% of the total planning cost is required by the subapplicant. HMGP matching funds must be from a non-federal source. State does not contribute to local funding match.
- Period of Performance (POP):** Cal OES will not accept subapplications with performance periods exceeding 36 months.
- Approved Notice of Interest:** Subapplicants must have an approved Notice of Interest (NOI) to submit a subapplication for HMGP funding. Only activities approved through the NOI process can be submitted for HMGP funding consideration. The approved NOI must be consistent with the subapplication submitted.
- Time Extensions:** Unless a time extension has been approved before the deadline, subapplications must be postmarked by the applicable deadline to be considered for funding.
- Hazard Mitigation Planning Laws, Regulations and Policies Guidance:** Subapplicants must use applicable State, Tribal, or local mitigation planning guidance to determine the specific requirements for new plans and plan updates regarding the planning process; hazard identification and risk assessment; mitigation strategy; plan review, evaluation, and implementation; and plan adoption. For State, tribal, or local mitigation planning guidance, read the FEMA Mitigation Planning [webpage](#).
- Subapplicant Eligibility:** Subapplicants must be an eligible State Agency, Local Government (City, County, and Special Districts) or Federally Recognized Tribes.
- Duplication of Programs:** HMGP funding cannot be used as a substitute or replacement to fund activities or programs that are available under other federal authorities, known as Duplication of Programs (DOP).
- FOR MULTI-JURISDICTIONAL PLANS ONLY - Letters of Commitment (LOC):** A Letter of Commitment must be included for each participating jurisdiction.



Subapplicant must be able to check every box to qualify for HMGP funding.

SUBAPPLICATION FORMAT INSTRUCTIONS

Cal OES requires the following format to be used for all HMGP subapplications. Two complete subapplications must be submitted to Cal OES. The first copy is logged and retained for Cal OES records. The second copy will be forwarded to FEMA for review and final determination.

Complete subapplication packages consist of the following:

- ☒ **TWO** identical CD-RWs with functional electronic versions of all subapplication documents and attachments:
 - Must be in one of the following formats: Microsoft Word version 2007 (or newer), Microsoft Excel or Adobe PDF
 - Must be clearly titled

ORGANIZATION OF THE SECTIONS MUST BE TABBED IN THE FOLLOWING FORMAT:

0. Table of Contents
1. Subapplication
2. Letters of Commitment **for Multi-Jurisdictional Local Hazard Mitigation Plans only** ([Letter of Commitment Template](#))
3. Authorization Forms ([Applicant Agent Resolution Form](#) and [Subrecipient Grants Management Assessment Form](#))
4. Supporting Docs (Any extra supporting documentation)

MAIL OR DELIVER COMPLETED SUBAPPLICATIONS TO:

California Governor's Office of Emergency Services
Hazard Mitigation Assistance Branch
Attention: Hazard Mitigation Grant Program
3650 Schriever Avenue
Mather, CA 95655

LOCAL HAZARD MITIGATION PLAN INFORMATION

8. PLAN TYPE:

A. ACTIVITY TYPE:

Planning activity types are classified as one of the choices listed below. Pick **one** of the following choices that best describes the type of plan this subapplication will deliver:

1.	<input type="checkbox"/> New Single Jurisdiction Local Hazard Mitigation Plan Select for single jurisdictions that have no existing hazard mitigation plan.	
2.	<input type="checkbox"/> Update to Single Jurisdiction Local Hazard Mitigation Plan Select for single jurisdiction that have a FEMA approved plan in place.	FEMA APPROVAL DATE
3.	<input type="checkbox"/> New Multi-Jurisdictional Local Hazard Mitigation Plan Select if there is no existing plan and multiple jurisdictions will be included.	
4.	<input type="checkbox"/> Update to Multi-Jurisdictional Local Hazard Mitigation Plan Select for multi-jurisdictions that have a FEMA approved plan in place.	FEMA APPROVAL DATE
5.	<input type="checkbox"/> New Tribal Mitigation Plan (in accordance with 44 CFR Section 201.7) Select for tribal federally recognized tribes that have no existing hazard mitigation plan.	
6.	<input type="checkbox"/> Update to Tribal Mitigation Plan (in accordance with 44 CFR Section 201.7) Select for federally recognized tribes that have a FEMA approved plan in place.	FEMA APPROVAL DATE
7.	<input checked="" type="checkbox"/> Other Planning-Related Activities Describe planning activities: <div style="border: 1px solid black; padding: 10px; margin-top: 5px;"> The Planning-Related activities associated with the Water Distribution System Reliability Planning Project aim to prioritize mitigation projects that would significantly increase the District's resiliency against seismic hazards as defined by Action 1 of HVLCSD's Local Hazard Mitigation Plan (HVLCSD LHMP, March 2020). The potential mitigation projects to be identified in Action 1 - Water Distribution System Reliability will address all six goals as outlined in section 5.2 Goals and Objectives of the LHMP. Specifically, the planning and subsequent implementation of Action 1 will benefit the community of HVLCSD by ultimately reducing risks to public safety and insufficient water supply, wildfire conflagration, property damage, and greenhouse gas reductions due to system failure resulting from a seismic event. </div>	



COMPLETE SECTION E IF YOU SELECTED 8.A.3. OR 8.A.4. ABOVE:

E. MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN INFORMATION:



If your plan type is multi-jurisdictional, a Letter of Commitment (LOC) from each participating jurisdiction is required. Use the template [here](#). A separate LOC must be executed by each participating jurisdiction and submitted to the lead agency and Cal OES jointly. The subapplication must include a LOC for each identified jurisdiction clearly stating commitment to participate in the development of the plan. Being recognized as a member of an approved multi-jurisdictional plan verifies a local agency's eligibility for hazard mitigation grant funds if they meet the participation criteria set forth in the letter.

- Enter the names of all the jurisdictions that will be included in your plan.
- Enter the County name included in the plan.
- Enter all the congressional district(s) within plan jurisdictions from <https://www.census.gov/mycd/>.
- Enter the exact title of the Letter of Commitment (LOC) electronic file that will be included on the required CD-RW Discs and place hard copies of each LOC in the LOC tabbed section.
- Identify the population of the jurisdiction applying for the planning grant using current census data.

#	JURISDICTION	COUNTY	CONGRESSIONAL DISTRICT #	TITLE OF ATTACHED LOC	POPULATION
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					



If more than 15 jurisdictions will be participating in your multi-jurisdictional plan; attach all information on a separate sheet and type the name of the attachment in box 1.



Complete section F if you previously selected 8.A.2. OR 8.A.4. OR 8.A.6.:

F. PLAN UPDATES:

Describe why the update to your plan is needed and describe how the update will build on your existing approved mitigation plan.

N/A

PLANNING INFORMATION

9. PLANNING INFORMATION:

A. PLAN TITLE: HVLCS D Water Distribution System Reliability Planning Project

Use the same plan title used in your approved planning NOI.

SCOPE OF WORK INFORMATION

10. Introductory Statement:

Provide a brief statement that describes the proposed activity and what will be accomplished by the end of the Period of Performance (POP).

The HVLCS D Water Distribution System Reliability Planning Project aims to identify critically vulnerable infrastructure within the HVLCS D potable water transmission and distribution system that is susceptible to water service disruption resulting from seismic events. The complexity of the project warrants substantial eligibility, technical feasibility, cost effectiveness (BCR), and compliance considerations. The goals of the complete project are to reduce the risk of water service interruption to the entire community of Hidden Valley Lake in the case of seismic events and subsequent flooding or wildfires that may manifest from an earthquake. By the end of the Period of Performance (POP), the Advanced Planning Project's is to identify the mitigation proejects the result in a BCR greater than 1.0, with the production of engineering design plans, environmental documentation, and specifications up to an approximately 30% level of engineering design such that CEQA and NEPA processes may be completed. The selected project(s) will fortify the reliability and seismic resiliency of the water distribution system.

SCOPE OF WORK - ACTIVITIES DESCRIPTION

11. Provide clear and concise descriptions of the following activities:

- A. Planning Area:** Provide a narrative describing the planning area, including any non-contiguous land holding or assets, and demographics. Include the proposed number and names of all participating governments, PNPs, or other partners.

The Planning Area is confined within the limits of HVLCS D's potable water system operational and service boundaries which is located within the census-designated place of Hidden Valley Lake, CA located in Lake County in northern California and with a resident population of approximately 6,300.

- B. Planning Process:** Provide a narrative that includes a description of the proposed planning process to engage stakeholders and the public. This description should explain the proposed role of the planning team (steering committee). This description should also provide the anticipated number of meetings for the planning team, identify stakeholders, and explain public outreach.

The Advanced Planning Project will be conducted by the HVLCS D staff. As part of the Project, the background infrastructure analysis will include discussion with locals about historic issues from previous hazard events. The data analysis will eventually produce documentation of relevant background infrastructure data and a system deficiencies analysis, identification and coordination with relevant stakeholders, and a pre-screened and prioritized understanding of vulnerability, under or oversized, and deficient infrastructure susceptible to seismic events.

As part of the District's regular meeting updates will be provided on the project to the public as well. The community is aware of the local seismic conditions and is concerned about future events that could leave the community without water.

- C. Previous Mitigation Planning:** Provide a narrative that includes a description of previous mitigation planning efforts, including an evaluation of the past plan as a basis to identify priorities for plan updates.

Regarding previous mitigation planning, HVLCS D developed and adopted the Local Hazard Mitigation Plan in 2020 (HVLCS D LHMP 2020). The results, analyses, and findings of Action 1 of the LHMP serve as the basis for this Planning Project.

	<p>D. Available Data and Risk Assessment Process: Provide a narrative that identifies the process the team will use to research, collect, analyze, and summarize hazard and risk data. If a specific risk assessment methodology or software (e.g., Hazus) will be used, the narrative must describe how this will influence the level of effort, timeframe, and planning costs. It is advised to make use of existing data and risk assessments when developing a new mitigation plan or updating a mitigation plan; the narrative should describe any known data sources to be used in the risk assessment. Similarly, if it is intended to develop new risk data, the proposed process and sources must be described as well.</p>
	<p>The hazard and risk analysis for this area was conducted as part of the Local Hazard Mitigation Plan (HMP) process. HVLCS D participated in the process and identified mitigation of seismic risks in their No. 1 action. The data from the HMP work will be leveraged in this analysis. The Attachment 02. Scope of Work includes a description of the</p>

		background infrastructure data and system deficiency analysis which will be conducted to build on the Hazard Mitigation Plan work to further identify individual risks within the water system that would result in loss of potable water to the community after a seismic event and loss of subsequent firefighting capabilities. Additional relevant background data may include but not limited to: as-built and record drawings of existing infrastructure, water system monitoring data, historical system failure occurrence and maintenance records, and other relevant reports or data that the District considers relevant for the development of the Planning Project. No new risk data will be developed.
--	--	---

	E.	Development of Mitigation Strategy: Provide a narrative that describes the proposed process to develop a mitigation strategy for each participating jurisdiction based on the risk assessment completed for the plan.
		N/A

	F.	Plan Adoption: Provide a narrative that describes the plan drafting process, including State and FEMA reviews (i.e., approval pending adoption), adoption by participating jurisdictions, and final approval by FEMA.
		N/A

SCOPE OF WORK - DELIVERABLES & TASKS

- 12. Deliverables:** Provide a narrative to describe the deliverables of the proposed activity.
- A new or updated FEMA-approved mitigation plan consistent with mitigation planning regulations for State (44 CFR Sections 201.4 or 201.5), tribal (44 CFR Sections 201.7 or 201.5), or local governments (44 CFR Section 201.6), as well as the applicable mitigation planning guidance.
 - A mitigation planning–related activity eligible under HMGP only that enhance an existing mitigation plan consistent with mitigation planning regulations for State (44 CFR Sections 201.4 or 201.5), tribal (44 CFR Sections 201.7 or 201.5), or local governments (44 CFR Section 201.6), as well as the applicable mitigation guidance.

<p>The deliverables are further described in the Attachment 02. Scope of Work, and are summarized below:</p> <ul style="list-style-type: none"> - Contract with consultant - Hydraulic Systems Model Technical Memorandum - Topographical Data - Preliminary Design Documents - Environmental Studies and Documentation - FEMA BCA / BCR Report - Planning Project Package for FEMA Review

- 13. Tasks:** Provide a narrative that describes the tasks, including the proposed planning process, as well as procurement.
If yes, include the following information in the box below or attach copies:
- Request for Proposals (RFP’s) and bid process
 - Description of responsibilities
 - Clarify at what point the consultant responsibilities will be fulfilled.

See 02.ScopeOfWork_HVLCSD

14. Consultant: Will a consultant assist with the planning development process?

Yes No

If yes, include the following information in the box below or attach copies:

- Request for Proposals (RFP's) and bid process
- Description of responsibilities
- Clarify at what point the consultant responsibilities will be fulfilled.

HVLCSD will solicit proposals for consultation and engineering services to assist in the development of the planning activities as prescribed Scope of Work. Specifically, the District will be seeking proposals from individuals, not-for-profit and for-profit organizations with the background, experience, skills, capabilities, and capacities to perform and execute the prescribed work in full.

WORK SCHEDULE INFORMATION

15. PLANNING WORK SCHEDULE:

The intent of the work schedule is to provide a realistic appraisal of the time and components required to complete the plan.

- Describe the major milestones and the duration of time to complete each one.
- Show activity duration in months.
- The work schedule must include six months for Cal OES/FEMA review/revisions/approval, appropriate time for local adoption and 90 days for grant closeout.
- **Cannot exceed 36 months**

WORK SCHEDULE EXAMPLE		
#	DESCRIPTION	TIMEFRAME
1.	Procure consultant	3 months
2.	Develop planning team	2 months
3.	Stakeholder outreach	3 months
4.	Hazard identification	3 months
5.	Risk assessment	3 months
6.	Mitigation strategy	2 months
7.	Maintenance plan	1 month
8.	Plan draft	3 months
9.	Cal OES/FEMA Review/Revisions	6 months
10.	Local Plan Adoption	2 months
11.	Grant Closeout	3 months
TOTAL MONTHS:		31 months

#	DESCRIPTION	TIMEFRAME
1.	Task 1 - Consultant Procurement	3 months
2.	Task 2 - Project Management	36 months
3.	Task 3 - Background Infrastructure Data and System Deficiency Analysis	6 months
4.	Task 4 - Survey and Preliminary Engineering Design	18 months
5.	Task 5 - Environmental Documentation	10 months
6.	Task 6 - Benefit Cost Analysis	3 months
7.	Task 7 - FEMA and Cal OES Report	3 months
8.		
9.		
10.		
11.		
12.		
13.		

14.		
15.		
16.	Standard Value	Cal OES/FEMA Review/Revisions
17.	Local Plan Adoption	N/A
18.	Standard Value	Grant Close-out
		TOTAL MONTHS:
		36 months

Cost Estimate Information

16. HMGP Cost-Estimate Spreadsheet:

A. Cost-Estimate Instructions:

Using the [HMGP Cost-Estimate Spreadsheet](#) on the next page, provide a detailed cost-estimate breakdown.

- Documentation to support the cost estimate is necessary.
- Eligible costs must be included in both the cost estimate spreadsheet and the scope of work to be reimbursed.

COST-ESTIMATE SPREADSHEET EXAMPLE				
ITEM NAME	UNIT QTY	UNIT	UNIT COST	COST EST TOTAL
PLAN INITIATION	80	HR	\$120	\$9,600
PUBLIC ENGAGEMENT	40	HR	\$60	\$2,400
REVIEW OF PLANS	140	HR	\$80	\$11,200
HAZARD/RISK ASSESSMENT	100	HR	\$150	\$15,000
LOCAL PLAN UPDATES	200	HR	\$67	\$13,400
COMPILE DRAFT	120	HR	\$120	\$14,400
REVIEW OF DRAFT	67	HR	\$120	\$8,040
APPROVAL/ADOPTION	50	HR	\$150	\$7,500
PLANNING CLOSE-OUT	80	HR	\$150	\$12,000
TOTAL COST ESTIMATE:				\$93,540

B. INELIGIBLE COSTS:

The following are ineligible line items:

- Lump Sums
- Contingency Costs
- Miscellaneous Costs
- “Other” Costs
- Cents (must use whole dollar amounts, round unit prices up to whole dollars)

C. PRE-AWARD COSTS:

Eligible pre-award costs are costs incurred after the disaster date of declaration, but prior to grant award. Pre-award costs directly related to developing the subapplication may be funded.

- Preparation of subapplication
- Workshops or meetings related to development



Subapplicants who are not awarded funds will not receive reimbursement for pre-award costs.

D. COST-ESTIMATE NARRATIVE:

FEMA requires a cost estimate narrative that explains each projected expenditure in detail. The cost estimate narrative must mirror the cost estimate spreadsheet and should include a detailed narrative explaining and supporting each cost listed in the Cost Estimate Spreadsheet. If your cost estimate includes City, County, or State employees’ time, include personnel titles and salary/hourly wages plus benefits for a total hourly cost. Detailed, functional timesheets must be retained.


Title the document “Cost-Estimate Narrative” and attach to this subapplication form.


HMGP Cost Estimate Spreadsheet

Date	Jurisdiction	Disaster/Control Numbers		Title	
	Item Name	Quantity	Units	Unit Cost	Cost Estimate Total
1	Pre-Award Costs:				\$ -
2					\$ -
3					\$ -
4					\$ -
5					\$ -
6					\$ -
7					\$ -
8					\$ -
9					\$ -
10					\$ -
11					\$ -
12					\$ -
13					\$ -
14					\$ -
15					\$ -
Total Project Cost Estimate:					\$ -

17. Federal/Non-Federal Share Information:

A. FUNDING RESTRICTIONS:

 HMGP funding is restricted to a maximum of \$150,000 for each single jurisdictional planning subapplication and up to \$250,000 if multi-jurisdictional. FEMA will contribute up to 75% of the total planning cost. A minimum of 25% of the total eligible costs must be provided from a non-federal source. The state does not contribute to local cost share.

 A jurisdiction may contribute an amount greater than the 25% non-federal share.

B. Total Planning Cost Estimate:

\$499,950

Enter total cost formulated on the [HMGP Cost Estimate Spreadsheet](#)

ENTER \$ IN BOX ABOVE



Verify all amounts entered are accurate.

Incorrect amounts Will delay processing of your subapplication.

FEDERAL SHARE (75% MAXIMUM)	REQUESTED AMOUNT:	\$374,963
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	75%
		ENTER % IN BOX ABOVE
NON-FEDERAL SHARE (25% MINIMUM)	REQUESTED AMOUNT:	\$124,987
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	25%
		ENTER % IN BOX ABOVE

C. NON-FEDERAL MATCH SOURCE - MATCH COMMITMENT LETTER:

Complete the Match Commitment Letter using the template on the next page.

- Match Commitment Letter should be submitted in an organizations letter head and it must be signed by an Authorized Agent.
- The non-federal source of matching funds must be identified by name and type.
- If "other" is selected for funding type, provide a description.
- Exact date of availability for all matching funds must be provided.
- Funds must be available at the time of submission unless prior approval has been received from Cal OES.
- If there is more than one non-federal funding source, provide the same information for each source on an attached document.
- Match funds must be in support of cost line listed in the cost estimate spreadsheet.
- Requirements for donated contributions can be found in 2 CFR 200.306.



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvicsd.org

MATCH COMMITMENT LETTER

March 5, 2021

California Governor's Office of Emergency Service
Hazard Mitigation Grants Program Unit
3650 Schriever Avenue
Mather, CA 95655

Re: DR-4558/PA-00000428/HVLCSD Water Distribution System Reliability Planning Project Subapplication Funding Match Commitment Letter

Dear State Hazard Mitigation Officer:

As part of the Hazard Mitigation Grant Program process, a local funding match of at least 25% is required. This letter serves as Hidden Valley Lake Community Services District's commitment to meet the local match fund requirements for the Hazard Mitigation Grant Program.

SOURCE OF NON-FEDERAL FUNDS:

LOCAL
AGENCY
FUNDING

OTHER
AGENCY
FUNDING

PRIVATE NON-
PROFIT
FUNDING

STATE
AGENCY
FUNDING

NAME OF FUNDING SOURCE:

Water Reserve Funds

FUNDS AVAILABILITY DATE:

03/05/2021

FEDERAL SHARE AMOUNT REQUESTED:

\$374,963

LOCAL SHARE AMOUNT MATCH:

\$124,987

FUNDING TYPE:

Cash from municipal customer water rates



Hidden Valley Lake Community Services District

19400 Hartmann Road
Hidden Valley Lake, CA 95467
707.987.9201
707.987.3237 fax
www.hvicsd.org

Please contact Alyssa Gordon with questions.

Sincerely,

A handwritten signature in blue ink that reads "Alyssa Gordon".

Alyssa Gordon,
Project Manager
707-987-9201
agordon@hvicsd.org

PRINT THIS PAGE – ORIGINAL SIGNATURE IS REQUIRED

AUTHORIZATION

The undersigned does hereby submit this subapplication for financial assistance in accordance with the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) and the State Hazard Mitigation Administrative Plan and certifies that the subapplicant (e.g., organization, city, or county) will fulfill all requirements of the program as contained in the program guidelines and that all information contained herein is true and correct to the best of our knowledge.

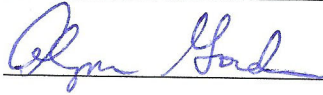
Subapplicant Authorized Agent

Name: Alyssa Gordon

Title: Project Manager

Organization: Hidden Valley Lake Community Services District

Signature:



Date: 5 March 2021

HVLCSD Resolution 2021-01

**DESIGNATION OF SUBRECIPIENT'S AGENT RESOLUTION
Hazard Mitigation Grant Program and Pre-Disaster Mitigation Program**

BE IT RESOLVED BY THE Board of Directors OF THE Hidden Valley Lake Community Services District
(Governing Body) (Name of Applicant)

THAT _____, **General Manager**, OR
(Title of Authorized Agent)
_____, **Project Manager**
(Title of Authorized Agent)

is hereby authorized to execute for and on behalf of the Hidden Valley Lake Community Services District, a public entity established under the laws of the State of California, this application and to file it with the California Governor's Office of Emergency Service. for the purpose of obtaining certain federal financial assistance under Public Law 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, and/or state financial assistance under the California Disaster Assistance Act.

THAT the Hidden Valley Lake Community Services District, a public entity established under the laws of the State of California, hereby authorized its agent(s) to provide to the California Governor's Office of Emergency Service for all matters pertaining to such state disaster assistance the assurances and agreements required.

Please check the appropriate box below:

This is a universal resolution and is effective for all open and futures Disasters/Grants up to three (3) years following the date of approval below.

This is a Disaster/Grant specific resolution and is effective for only Disaster/Grant name/number(s) _____

Passed and approved this 19th day of January, 2021

Jim Freeman, President

(Name and Title of Governing Body Representative)

Claude Brown, Director, Board of Directors

(Name and Title of Governing Body Representative)

Gary Graves, Director, Board of Directors

(Name and Title of Governing Body Representative)

Jim Lieberman, Director, Board of Directors

(Name and Title of Governing Body Representative)

Sean Millerick, Director, Board of Directors

(Name and Title of Governing Body Representative)



CERTIFICATION

I, Jim Freeman, duly appointed and President to the Board of Directors of
(Name) (Title)

Hidden Valley Lake Community Services District, do hereby certify that the above is a true and correct copy of a
(Name of Applicant)

Resolution passed and approved by the Board of Directors of the Hidden Valley Lake Community Services District
(Governing Body) (Name of Applicant)

on the 19th, day of January 2021.

(Signature)

President
(Title)



Hidden Valley Lake Community Services District Water Distribution System Reliability Planning Project - Scope of Work

1. Introduction

The mitigation goals of the proposed planning project focus on the reducing the risk of loss of potable water service, wastewater service, and associated firefighting services in the event of a seismic event for the Hidden Valley Lake, CA community served by the Hidden Valley Lake Community Services District (HVLCSO or District).

1.1 Background

The District's Local Hazard Mitigation Plan of March 2020 identifies earthquakes and seismic activity as highly likely (see page 4-79) and is juxtaposed between known active faults and numerous active geothermal sites. The risk of axial pull and compression on water distribution main joints has historically caused pipeline failure and unknown occurrences of degradation to the integrity of the District's system. The distribution system was constructed prior to when modern seismic construction codes and standards were adopted, including the 1975 lateral force requirement and the Uniform Building Code of 1994 that mandates the inclusion of seismic safety provisions.

Although buried gravity pipelines (non-pressurized pipelines) historically and typically perform relatively well during seismic shaking, the same cannot be said for pressurized pipelines such as water mains that experience significantly higher rates of failure during seismic shaking (e.g. joint separation, joint pounding). This is in part due to their near surface installation depth, which experiences much higher seismic wave propagation (measured as peak site acceleration or peak ground velocity, PGV). Seismic wave propagation is greatest at the ground surface and is greater in soft soil vs. hard soil or bedrock. The majority, if not all, of the HVLCSO water mains are buried in shallow, soft soils. The gravity pipelines like sanitary sewer generally fare much better during ground shaking events since they are buried relatively much deeper than pressurized pipelines.

Active faults have not been discovered immediately underlying the HVLCSO systems, but the area is generally known for being in an understudied or unevaluated area in an active seismic zone accommodating shear from the San Andreas Fault System. The Coyote Valley basin is filled with young soft alluvial sediments that could overlie active blind extensions of known active faults (recent CGS active fault maps of Coyote Valley and southern Lake County) that project at and through Coyote Valley in a northwest orientation, and should be evaluated further.



Absent of any fault offset or liquefaction (documented to be absent in the vicinity); landsliding (including slope creep and lateral spreading) is the remaining seismic risk for all the HVLSCD pipeline infrastructure. Much of the District pipelines are located on topography that is relatively flat to mildly sloping, with little to no landsliding risk. However, there are existing sections of pipelines located in, or directly adjacent to, much steeper topography that has been recently burned by fires and often is inundated in saturated soil and groundwater conditions. Therefore, the risk of seismically induced landsliding impacting portions the pipeline systems may be higher than previously evaluated and/or some conditions may have changed in recent decades, increasing landsliding risks.

1.2 Objectives

The mitigation objectives of the proposed Planning Project are to identification and plan for the mitigation of infrastructure that poses risks to the community associated with loss of water, wastewater, and fire service to the community of Hidden Valley Lake in the case of seismic damage and failure. The proposed project will identify mitigations for earthquake and associated fires through improving the seismic resiliency of the water distribution systems serving the community of Hidden Valley Lake.

2. Project Scope

This section presents a detailed description of the tasks necessary to complete the Planning Project. The estimated total duration of the proposed project is 36 months from when this grant application has been accepted and the final funding details have been determined. See the grant application schedule for anticipated duration and starting point of the tasks detailed below.

The project scope below will be broken into two phases – Pre-Award Phase and the Grant Period of Performance Phase. This phasing was delineated to align with FEMA’s HMG Program. Pre-Award costs are those anticipated to occur prior to award of a grant agreement. The Grant Period of Performance costs are those that would occur after a FEMA funding agreement is executed.

2.1 Pre-Award Phase

The pre-award phase will include preparation of the Hazard Mitigation Grant including the HMGP DR-4558 Application, Scope of Work, and project costs. Also included within this task is the effort to respond to Requests for Information during (RFIs) the Cal OES and FEMA review period, prior to grant award. The deliverables for this task are the completed grant application and response to RFIs.

2.2 Grant Period of Performance

After project funding is awarded, the Grant Period of Performance will begin which includes all project components associated with consultant procurement, project management, vulnerability assessment preliminary design and environmental investigations, BCA analysis, FEMA / Cal OES reporting and review, and grant closeout.



Task 1 - Consultant Procurement

The District will solicit proposals for consultation and engineering services to assist in the development of the planning activities as prescribed in the follow Tasks. Specifically, the District will be seeking proposals from individuals, not-for-profit and for-profit organizations with the background, experience, skills, capabilities, and capacities to perform and execute the prescribed work in full.

- *Task 1: Milestones: Signed contract with winning consultant*
- *Task 1 Duration: 3 months*

Task 2 - Project Management

Under this task, the District will manage the project and the consultants doing the work. This will include coordination calls, supplying requested data, schedule coordination for field services, and payment of contractors. There are no specific deliverables for this task

Task 2 Duration: 33 months during funding of Grant Period of Performance

Task 3 - Background Infrastructure Data and System Deficiency Analysis

The Background Data Review and System Deficiency Analysis aims to compile a working database of District-owned potable water system infrastructure for vulnerability analysis. Information gathered during this task includes but is not limited to quantity and or length, precise location, size, and age of operational infrastructure. Initial system component data will be gathered from existing As-built drawings, reports, and other literature provided by the District. Field verification will supplement all initial data gathered, and when possible, infrastructure will be tested and exercised to document existing conditions of infrastructure where applicable. The consultant will coordinate and work with District staff to accomplish this task.

- *Task 3: Milestones: Summary Condition Technical Memorandum*
- *Task 3 Duration: 3 months*

Task 4 - Survey and Preliminary Engineering Design

Sub-Task 4.1 - Topographical Data Collection

Topographic data information will be collected for the vulnerable regions in the HVLCSD potable water distribution system as defined by the System Deficiency Analysis. A preliminary topographic survey giving elevation contours and locations of structures will be required to allow for preliminary design of the project. Ground features including grade breaks and ground shots sufficient to create a digital terrain model will be determined. Topographic data will include structures, paved areas, underground utilities, fences, trees 12" and larger, and other miscellaneous topographic items will also be shown on the survey. The survey will be used to create a base map suitable for development of the final preliminary design.

- *Task 4.2 Milestone: Completion of topographical data collection*
- *Task 4.2 Duration: 2 months*



Sub-Task 4.2 - Hydraulic Systems Model

The District is seeking to create and analyze the results a computer-aided hydraulic model of their potable water distribution system. The extended period model shall run using an applicable program (WaterCAD, Innovyze InfoWater, Innovyze H2OMap, etc) for 7-day simulations. The model shall consider scenarios of operational procedures and constraints on the system resulting from pipe failure after seismic events such that certain sectors or pressure zones may be isolated or optimized to maintain prioritized system integrity and operation.

- *Task 4.2 Milestone: Completion of Hydraulic Systems Model Technical Memorandum*
- *Task 4.3 Duration: 4 months*

Sub-Task 4.3 - Preliminary Geotechnical Evaluation

The District intends to compile and update geotechnical information about the project region that is accessible without ground disturbance or soil analyses. Specifically, this task will rely upon analyzing the District's facility design specifications and As-Built drawings so a geotechnical vulnerability matrix table can be prepared using known pipeline depths, pipeline types, and the associated slopes and mapped soil types to target the most vulnerable locations to seismic risk factors. Additional gathered previously written reports and compiled local data, along with regional and national soil database queries, and open-source geospatial data will be also performed as part of the preliminary geotechnical analyzed. The resultant Preliminary Geotechnical Memorandum will serve as a basis for more exploratory geotechnical evaluations including the potential installation of seismic/vibrational monitoring devices, should the proposed project develop further.

- *Task 4.3 Milestone: Completion of Preliminary Geotechnical Memorandum*
- *Task 4.3 Duration: 4 months*

Sub-Task 4.4 - Preliminary Engineering Design

The Preliminary Design builds off the Background Data Review and System Deficiency Analysis documentation consists of work necessary to develop a basis of design resulting in preliminary design documents. The preliminary design will be used to estimate costs for the prioritized mitigation project , which will inform the Benefit Cost Analysis.

- *Task 4.4 Milestone: Preliminary Design Documents (plans and engineer's opinion of probable cost)*
- *Task 4.4 Duration: 4 months*

Task 5 - Environmental Documentation

Under this task, the Project Team will develop supporting environmental documents for the eventual NEPA and CEQA processes. Work is anticipated to include a non-protocol level biological survey, cultural resources survey, and provision of maps documenting findings. A biological resources assessment will be developed and cover the project work areas and staging area. The non-protocol level biological survey will be conducted prior to construction to delineate any wetlands, and to identify potential adverse impacts to wildlife and if consultation with USFWS is necessary. It is assumed that there are no wetlands or that they can be avoided at all project sites, but a final determination will be made after the survey. If a formal wetlands delineation is needed, it would be conducted at a later date.



Under this task the CEQA Initial Study Checklist will be completed. Under this task, consultant staff will conduct a site visit to collect photos of representative project areas and identify general environmental characteristics. This information will be combined with natural resources database information on endangered and threatened plants and animals, air quality, and wetland and waters of interest in the area to address checklist requirements.

The potential need for the following agency coordination, permits and/or approvals will be summarized in an attachment to the Checklist:

- CWA Section 404/RHA Section 10
 - Clean Water Act Section 401/402
 - EO 11988 Floodplains 8-step Process
 - EO 11990 Wetlands 8-step Process
 - CZMA CC/Negative Determination
 - Section 7 ESA
 - NHPA Section 106
 - FLPA Farmland Conversion Form AD-1006
 - CAA General Conformity Determination
 - Migratory Bird Treaty Act
 - Fish and Wildlife Coordination Act
 - Magnuson-Stevens Fishery & Management Act
- *Task 6 Milestone: Biological Resources Assessment, Cultural Resources Study, Final Initial Study Check List*
 - *Task 6 Duration: 13 months*

Task 6 - Benefit Cost Analysis

The BCA software version 6.0 will be used to conduct a preliminary benefit cost analysis (BCA) to ensure the project meets the threshold eligibility criteria of a benefit cost ratio (BCR) greater than 1. The damage frequency assessment module of the BCA software will likely be used.

Data on number of structures, and structure and land values will be needed for the Project area. Information on potential critical facilities affected by hazard will be included, supplemented with data from the District for critical infrastructure to estimate the potential maximum damages. This will be combined with data from the Local Hazard Mitigation Plan (LHMP) on wildfire severity for the area as well as fire data pulled from FEMA BCA guidance documents or models and/or US Forest Service Wildfire assessment and recurrence data, as well as data collected during this Project.

- *Task 6 Milestone: Benefit Cost Analysis Report and Attachments, Final BCA Model Files*
- *Task 6 Duration: 3 months*

Task 7 - Cal OES and FEMA Report

This task is associated with the compilation of all memoranda, analyses, and documents and their preparation into a Draft Report for review from Cal OES and FEMA.

- *Task 7 Milestones: Draft Report submitted to Cal OES / FEMA for review*



- *Task 7 Duration: 6 months*

Task 8 - Cal OES/FEMA Review/Revisions

This task is associated with addressing and answering the review and revisions of the Draft Report and preparation of a Final Report to be submitted to Cal OES and FEMA. Documentation of edits and revisions will be included.

- *Task 7 Milestones: Final Report submitted to Cal OES / FEMA after addressing all comments and revisions*
- *Task 7 Duration: 6 months*

Task 9 - Grant Closeout

This task includes the required documentation, reports, and notices to complete the project close out with Cal OES and FEMA.

- *Task 9 Duration: 3 months*



Hazard Mitigation Grant Program Grant Management Cost Subapplication

SECTION 1

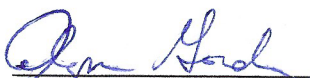
Subapplicant Name: Hidden Valley Lake Community Services District
Project Name: HVL CSD Water Distribution System Reliability Planning Project
Disaster Number: DR-4558
Project Number: DR-4558-0428

Subrecipient grant management costs are available at no more than 5% of the final project cost to subrecipients who apply and can meet all federal grant requirements. Subrecipients must provide a detailed budget of the management cost request in line with 2 CFR 200.403-404, which is subject to Cal OES/FEMA approval. Reimbursement is based on documented actual cost. All management cost documentation is subject to the same document retention and audit requirements of traditional project costs. Subrecipients are strongly encouraged to pursue grant management costs as this funding provides a resource to fund staff to oversee the grant management functions of the project. Please complete this subapplication and return both the Excel form and a signed PDF version to Cal OES during project subapplication submittal. Each category does not need to be completed. Use only the categories that are applicable to the grant.

Note:

Management cost reimbursements will not exceed 5% of the "total project cost". The Federal cost share for management costs is 100%. Total Project Cost is calculated by dividing the Federal share by 0.75. Enter the Federal share below and a calculation will occur defining the maximum grant management cost allowed.

Alyssa Gordon
Authorized Agent - Please Print


Signature

Project Manager
Title

5-Mar-21
Date

SECTION 2

Enter Total Federal Share Cost:

Maximum Eligible Management Cost:
(Calculated from entry above)

FEMA Definition of Management Costs: Any indirect cost, any direct administrative cost, and any other administrative expenses associated with a specific project under a major disaster, emergency, or disaster preparedness or mitigation activity or measure.

Directions: For each applicable category, provide a total estimated cost. Refer to the Management Cost Examples below for costs that may be included. For the Narrative field, include a detailed description of work for each cost, including the methodology used to estimate each cost. For example, if your cost estimate includes your agency's employee's time, include estimated hours, personnel titles, and salary/hourly wages plus benefits for a total hourly cost. Additionally, describe how these costs will be used through the life of the grant.

Management Cost Budget Breakdown:	
A. Pre-Award (Subapplication Development)	\$24,588
Narrative:	
<p>Grant Management staff costs will include time for the District's General Manager (\$98/hr); Operations Supervisor (\$90/hr); and Senior Accountant (\$74/hr). It is estimated that the District's General Manager will spend an average of 2 hours per month for 36 months on Grant Management Tasks including technical monitoring of project design documents; technical monitoring of permits; preparation and review of quarterly monitoring reports; technical monitoring of Consultant and Contractor invoices; preparation and review of Reimbursement Request submittals, and grant closeout tasks (\$7,056). It is estimated the District Operations Supervisor will spend 1 hour per month for 36 months supporting the Project Manager in grant administration tasks as well as participation in technical meetings and site visits (\$3,240). It is estimated that the District Senior Accountant and Administrative Assistant will spend on average 0.5 hours for 36 months on Grant Management Tasks including preparation and review of quarterly Reimbursement Requests and Grant Closeout activities (\$1,332). It is also assumed that the District's selected Consultant will spend an estimated 2 hours per month at an average charge out rate of \$180/hr for 36 months on grant administration including supporting development quarterly monitoring report preparation, communication with Cal OES and FEMA and grant close-out</p>	
B. Staff Time (includes fringe benefits)	
Narrative:	
<p> </p>	
C. Travel	
Narrative:	
<p> </p>	

D. Equipment

Narrative:

E. Supplies

Narrative:

F. Indirect Cost

Narrative:

G. Other

Narrative:

Total Management Cost Requested:	\$	24,588.00
Maximum Management Cost Allowed (Requested ≤ Allowed)	\$	24,998

Management Cost Examples

- A. Pre-Award - Subapplication development, community outreach, meetings related to subapplication development.
- B. Staff Time - Salary of hourly employee staff time to manage technical monitoring, quarterly reporting, technical assistance, and the reimbursement and closeout process.
- C. Travel - Travel costs to attend professional development training courses directly related to implementation of the Hazard Mitigation grant.
- D. Equipment - Equipment costs directly related to implementation of the Hazard Mitigation grant.
- E. Supplies - Supply costs directly related to implementation of the Hazard Mitigation grant, such as printer materials and office supplies.
- F. Indirect Cost - Depreciation or use allowances on buildings and equipment, costs of operating and maintain facilities, general administration and accounting administration.
- G. Other - Any other administrative expenses not captured in the categories above.

For further clarification, grant management activities are to manage the grant. Grant management is different than project management. Project management is to manage the actual physical project itself (construction oversight, project scheduling and coordination, project meetings).

DEPARTMENT OF HOMELAND SECURITY
 Federal Emergency Management Agency
CONTRACT WORK SUMMARY RECORD

PAGE 1 OF 1

O.M.B. Control Number: 1660-0017
 Expires: June 30, 2020

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average .5 hours per response. The burden estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472-3100, Paperwork Reduction Project (1660-0017). **NOTE: Do not send your completed questionnaire to this address.**

DATE 3/4/21	PA ID # 033-91015	PROJECT # 159440	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake	CATEGORY B		PERIOD COVERING 2/15/21 - 5/1/21

DESCRIPTION OF WORK PERFORMED
 Debris Removal

DATES WORKED	CONTRACTOR	BILLING/INVOICE NUMBER	AMOUNT	COMMENTS- SCOPE
2/15/21 - 5/1/21	Mountain F Enterprises	MFE0765	150,000.00	Chipping & Stump grinding
GRAND TOTAL			\$150,000	

I CERTIFY THAT THE INFORMATION WAS OBTAINED FROM PAYROLL, INVOICES, OR OTHER DOCUMENT THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Project Manager	DATE Mar 4, 2021
----------------------------	--------------------------	---------------------

DEPARTMENT OF HOMELAND SECURITY
 Federal Emergency Management Agency
CONTRACT WORK SUMMARY RECORD

PAGE 1 OF 1

O.M.B. Control Number: 1660-0017
 Expires: June 30, 2020

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DATE 3/4/21	PA ID # 033-91015	PROJECT # 162720	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake	CATEGORY B	PERIOD COVERING 8/17/20 - 9/15/20	

DESCRIPTION OF WORK PERFORMED
 Continuity of Operations - Generators

DATES WORKED	CONTRACTOR	BILLING/INVOICE NUMBER	AMOUNT	COMMENTS- SCOPE
8/19 - 9/15	City of Sacramento	DOUJWW	13,809.62	Contract Labor and Generator rental pro-rated for time period.
GRAND TOTAL			13,809.62	

I CERTIFY THAT THE INFORMATION WAS OBTAINED FROM PAYROLL, INVOICES, OR OTHER DOCUMENT THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Project Manager	DATE Mar 4, 2021
----------------------------	--------------------------	---------------------

DEPARTMENT OF HOMELAND SECURITY
 Federal Emergency Management Agency
CONTRACT WORK SUMMARY RECORD

PAGE 1 OF 1

O.M.B. Control Number: 1660-0017
 Expires: June 30, 2020

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average .5 hours per response. The burden estimates includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472-3100, Paperwork Reduction Project (1660-0017). **NOTE: Do not send your completed questionnaire to this address.**

DATE 3/4/21	PA ID # 033-91015	PROJECT # 162720	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake	CATEGORY B	PERIOD COVERING 9/16/20 - 12/18/20	

DESCRIPTION OF WORK PERFORMED
 Continuity of Operations - Generators and HVAC

DATES WORKED	CONTRACTOR	BILLING/INVOICE NUMBER	AMOUNT	COMMENTS- SCOPE
9/16 - 10/1	City of Sacramento	DOUUWW	9480.74	Contract Labor and Generator rental pro-rated for time period
12/14/2020 - 12/18/2020	KleenAir	9135/9136	38,167.20	HVAC
GRAND TOTAL			47,647.94	

I CERTIFY THAT THE INFORMATION WAS OBTAINED FROM PAYROLL, INVOICES, OR OTHER DOCUMENT THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Project Manager	DATE Mar 4, 2021
----------------------------	--------------------------	---------------------

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
FORCE ACCOUNT EQUIPMENT SUMMARY RECORD

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average .5 hours per response. The burden estimates includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472-3100, Paperwork Reduction Project (1660-0017). **NOTE: Do not send your completed questionnaire to this address.**

APPLICANT Hidden Valley Lake Community Services District	PA ID # 033-91015	PROJECT #	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake		CATEGORY B	PERIOD COVERING

DESCRIPTION OF WORK PERFORMED
Continuity of Operations

TYPE OF EQUIPMENT		OPERATOR'S NAME	DATES AND HOURS USED EACH DAY							COSTS				
INDICATE SIZE, CAPACITY, HORSEPOWER, MAKE AND MODEL AS APPROPRIATE	EQUIPMENT CODE NUMBER		DATE	8/14/20	8/15/20	8/16/20	8/17/20	8/18/20	8/19/20	8/20/20	TOTAL HOURS	EQUIPMENT RATE	TOTAL COST	
Dump Truck - Dodge Ram 5500 (43000 gvwr)	8799	Barry Silva	HOURS	+	+	+	+	+	+	7	2	9	42.33	
Construction Truck - 2003 International	8720	Dominic Hernandez	HOURS							10	9	19	57.70	
Nissan Frontier (2016)	8801	Russel Murphy	HOURS							3	8	11	12.78	
Nissan Frontier (2016)	8801	Nik Hendricks	HOURS							3		3	12.78	
			HOURS											
			HOURS											
			HOURS											
			HOURS											
GRAND TOTAL													1,656.19	

I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Water Resources Specialist	DATE 11/3/2020
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DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
FORCE ACCOUNT EQUIPMENT SUMMARY RECORD

PAPERWORK BURDEN DISCLOSURE NOTICE

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APPLICANT Hidden Valley Lake Community Services District	PA ID # 033-91015	PROJECT #	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake		CATEGORY B	PERIOD COVERING

DESCRIPTION OF WORK PERFORMED
Continuity of Operations

TYPE OF EQUIPMENT		OPERATOR'S NAME	DATES AND HOURS USED EACH DAY								COSTS		
INDICATE SIZE, CAPACITY, HORSEPOWER, MAKE AND MODEL AS APPROPRIATE	EQUIPMENT CODE NUMBER		DATE	8/21/20	8/22/20	8/23/20	8/24/20	8/25/20	8/26/20	8/27/20	TOTAL HOURS	EQUIPMENT RATE	TOTAL COST
Construction Truck - 2003 International	8720	Barry Silva	HOURS 8			8	8	8	8	40	57.70		
Nissan Frontier (2016)	8801	Dominic Hernandez	HOURS 8			8	8			24	12.78		
Ford Ranger (2008)	8801	Russel Murphy	HOURS 8			8	8	8	8	40	12.78		
Nissan Frontier (2016)	8801	Nik Hendricks	HOURS			8	8	8	8	32	12.78		
Nissan Frontier (2016)	8801	Brandon Bell	HOURS 8			8	8			24	12.78		
			HOURS										
			HOURS										
			HOURS										
GRAND TOTAL												3,841.6	

I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Water Resources Specialist	DATE 11/3/2020
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DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
FORCE ACCOUNT EQUIPMENT SUMMARY RECORD

PAPERWORK BURDEN DISCLOSURE NOTICE

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APPLICANT Hidden Valley Lake Community Services District	PA ID # 033-91015	PROJECT #	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake		CATEGORY B	PERIOD COVERING

DESCRIPTION OF WORK PERFORMED
Continuity of Operations

TYPE OF EQUIPMENT		OPERATOR'S NAME	DATES AND HOURS USED EACH DAY						COSTS			
INDICATE SIZE, CAPACITY, HORSEPOWER, MAKE AND MODEL AS APPROPRIATE	EQUIPMENT CODE NUMBER		DATE	8/28/20	8/29/20	8/30/20	8/31/20	9/1/20	9/2/20	9/3/20	TOTAL HOURS	EQUIPMENT RATE	TOTAL COST
Ford Ranger (2008)	8801	Russel Murphy	HOURS 8	+	+	+	+	+	+	32	12.78	
Nissan Frontier (2016)	8801	Nik Hendricks	HOURS 8							8	12.78	
Nissan Frontier (2016)	8801	Brandon Bell	HOURS 8							8	12.78	
			HOURS									
			HOURS									
			HOURS									
			HOURS									
			HOURS									
GRAND TOTAL												613.44

I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Water Resources Specialist	DATE 11/3/2020
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DEPARTMENT OF HOMELAND SECURITY
 Federal Emergency Management Agency
FORCE ACCOUNT LABOR SUMMARY

PAGE 1 OF 1

O.M.B. Control Number: 1660-0017
 Expires: June 30, 2020

PAPERWORK BURDEN DISCLOSURE NOTICE

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APPLICANT Hidden Valley Lake Community Services District	PA ID # 033-91015	PROJECT # DR4558	DISASTER DR4558
LOCATION/SITE Hidden Valley Lake	CATEGORY B	PERIOD COVERING 8/14/20 - 8/20/20	

DESCRIPTION OF WORK PERFORMED
Continuity of Operations

NAME	JOB TITLE	DATES AND HOURS WORKED EACH WEEK							COSTS					
		DATE	8/14/20	8/15/20	8/16/20	8/17/20	8/18/20	8/19/20	8/20/20	TOTAL HOURS	HOURLY RATE	BENEFIT RATE/HR	TOTAL HOURLY RATE	TOTAL COSTS
NAME <i>Barry Silva</i>	REG.		+	+	+	+	+	+						
JOB TITLE <i>Utility Supervisor</i>	O.T.							7	2	9	\$60.95	0	\$60.95	\$548.55
NAME <i>Dominic Hernandez</i>	REG.													
JOB TITLE <i>Utility Technician</i>	O.T.							7	1	8	\$27.02	0	\$27.02	\$216.16
NAME <i>Russel Murphy</i>	REG.													
JOB TITLE <i>Utility Technician</i>	O.T.								1	1	\$27.06	0	\$27.06	\$27.06
NAME <i>Nik Hendricks</i>	REG.													
JOB TITLE <i>Operator I</i>	O.T.								1	1	\$34.56	0	\$34.56	\$34.56

TOTAL COSTS FOR FORCE ACCOUNT LABOR REGULAR TIME _____ \$

TOTAL COST FOR FORCE ACCOUNT LABOR OVERTIME _____ \$ 826.33

I CERTIFY THAT THE INFORMATION ABOVE WAS OBTAINED FROM PAYROLL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED Alyssa Gordon	TITLE Project Manager	DATE Mar 4, 2021
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**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: LNU Lightning Complex fire public assistance request

RECOMMENDATIONS: Staff to continue to keep committee members informed of progress to date.

FINANCIAL IMPACT: Pending review

FUND:

BACKGROUND:

On 8/22/20 a federal disaster was declared for damages incurred by wildfire across many counties within California, including Lake County. The District submitted a Request for Public Assistance (RPA) to recoup the costs incurred as a result of this event. Staff attended multiple training and virtual meetings in accordance with the policies and procedures of Public Assistance funding. Some details of this process have changed since previous disasters;

- Lake County only qualified for two types of recovery, debris removal, and emergency protective measures
- FEMA declared that it would cover 100% of expenses incurred between 8/17/20 – 9/15/20

These two process changes caused a number of revisions to reimbursement requests, which were finalized on 3/4/21 (See attached).

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: FLASHES

RECOMMENDATIONS: Staff to continue to keep committee members informed of progress to date.

FINANCIAL IMPACT: Under review

BACKGROUND:

Update of the Firemain Linked Auxiliary Supply/Hydraulic Energy Storage (FLASHES) project.

As you may recall, we learned on 2/12/21 that the uncertainty in Investment Tax Credits (ITC) opportunities caused our Resilience partner, Trane to postpone the project. This postponement did not come without ripple effects. The HMGP Water Mains project is still moving forward, but with significant scope changes. On the other hand, the extra time now afforded to us from this postponement allows for a methodological approach to developing a definitive contract (Franchise Agreement) with Trane.

On 2/19/21, Trane proposed a Letter of Commitment, with a Term Sheet as an Exhibit. The Term Sheet exhibit describes what the project is, the financing structure, key elements that support the financing structure, conditions to the success of the project, and timelines. The Letter of Commitment is essentially the agreement to the terms of the term sheet.

The financial structure has two (2) main elements

- A Public/Private Partnership (PPP)
- Loan or bond issuance
- In consideration for this partnership, the investor will bear the costs of development and debt service. As previously discussed, the value of the partnership for the investor, is the value of the electricity generated by this project.

Among others, there are three key conditions that have been identified by Trane that need to be met in order for this project to be viable, and attractive to investors.

- Investment Tax Credit (IRC)
- Property lease (Option)
- Interconnection (CAISO)

Timelines of the project

- Letter of Commitment
- Development period
- Franchise Agreement
- Notice to Proceed

Legal Counsel has reviewed the Letter of Commitment and Term Sheet and have offered their feedback. They have made edits to language and helped clarify terms. Important distinctions have been made between the District obligations within the Letter of Commitment, and the District obligations within the Franchise Agreement.

There are no costs required of the District with either the Letter of Commitment or the Franchise Agreement. A termination of the Franchise Agreement prior to project completion, however, will pose a penalty to the District. It is for this reason, that legal counsel would like to see the Term Sheet of this Letter of Commitment clearly identify costs, revenue streams and contingencies.

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: SCADA

RECOMMENDATIONS: Recommend to the BOD the approval of the GHD proposal.

FINANCIAL IMPACT: \$73,500

FUND: 314/320

BACKGROUND:

SCADA stands for Supervisory Control And Data Acquisition. This is the District's method by which water and wastewater services operate. The method of communication is also known as telemetry. The District's current SCADA system was implemented in 1994. Software and hardware upgrades have taken place over the years, but the basic structure has stayed the same. Staff has recognized that this basic SCADA structure (ie serial modbus communications and in-house HMI) has now become obsolete. Additionally, network connectivity has become unreliable, and many hardware devices have reached the end of their life cycle.

The District reached out to GHD for assistance in assessing our SCADA needs in July of 2020. A series of unavoidable delays (LNU Lightning Complex fire, Prop 218) pushed this project back several months. Staff was able to meet with GHD earlier this month to review GHD's proposal. This proposal is attached for your review. Over the course of 7 months, GHD proposes to deliver a SCADA Master Plan, and Cybersecurity Plan.

The 5 year Capital Improvement Plan (CIP) identifies SCADA as a needed improvement activity. The timing of this planning project will span over two different fiscal years, and therefore meets the expenditure expectations of the CIP.

We ask for your support with this project, and your recommendation to approve this proposal.



February 19, 2021

Hidden Valley Lake Community Services District (HVLCS D)
Dennis White, General Manager
19400 Hartmann Rd
Hidden Valley Lake, CA 95467

RE: HVLCS D SCADA Improvement Project

GHD appreciates the opportunity to respond to the District's desire to improve the existing water and wastewater SCADA system. We would like the District to consider the following approach:

- Phase 1 - Develop SCADA Master Plan documents that will define the District's goals, needs, and technical approach to improve the District's SCADA system.
- Phase 2 - Develop detailed design documents necessary to complete the SCADA improvements.

GHD will use the Phase 1 SCADA Master Plan documents as a guide to develop detailed design documents and automation software necessary to complete the SCADA improvements.

This proposal contains all of the elements required for Phase 1.

Firm Qualifications and Experience

GHD is one of the world's leading engineering, architecture, and environmental consulting companies. Established in 1928, GHD employs more than 9,500 people across five continents, with more than 3,500 staff and professionals in North America alone, and has served municipalities in California for 65+ years.

GHD has more than 350 staff and professionals in California and has provided engineering services for projects similar to the District's Supervisory Control and Data Acquisition (SCADA) System Improvement Project to municipalities throughout California for more than 25 years.

GHD's strengths include a deep knowledge base in many areas of engineering expertise, with the ability to draw upon technical capabilities and knowledge on an as needed basis to address technical subject matter.

As it relates to the District's proposed SCADA system improvements, GHD has the ability to provide in-house support for electrical engineering, process engineering, automation engineering, civil engineering, mechanical engineering, communication systems engineering, cybersecurity engineering, information technology engineering, and construction support services.

GHD also has the ability to provide in-house automation software engineering services that can provide detailed design and functional configuration and programming for most of the popular Programmable Logic Controllers (PLC's), Human Machine Interfaces (HMI's) and SCADA software platforms.

GHD has been involved extensively and successfully in the development of SCADA systems that have exceeded the expectations of clients. Because GHD offers a wide range of

engineering services in-house, GHD has the ability to quickly and effectively respond to design challenges, while keeping development time and the associated costs to a minimum.

GHD believes that successfully developing engineered solutions requires a blend of the consultant's knowledge of the technical marketplace, with the client's knowledge of their operational needs.

An important feature of the proposed approach for this project, is that GHD intends to work closely with the District's key stakeholders as a trusted technical advisor to develop the framework and technical design requirements for this improvement project. GHD will work with the District to implement appropriate technologies and methods that will assist the District in achieving its vision for a system that provides for a uniform, secure, resilient, flexible, technology driven, and comprehensive SCADA environment.

Staff

GHD has hand selected a senior group of staff that are extremely well suited to work with the District to understand your system and drive your objectives. All staff are senior professionals with many years of hands-on experience.

Mike Tocher | Project Manager and SCADA OT Cybersecurity Lead

Mr. Tocher will serve as our Project Manager. Mike also serves as GHD's North America Automation Service Line Leader. He is located in our San Luis Obispo office with over 25 years of diverse experience managing and designing water and wastewater treatment plant SCADA systems. His career has been focused on managing, designing and implementing automation and control systems include network based SCADA systems. He is considered an industry expert in instrumentation integration, process automation, developing SCADA cybersecurity requirements, developing cybersecurity designs, developing wireless/telemetry-based systems and SCADA system commissioning. Other experience includes designing communications systems to BICSI and TIA standards, and designing fire alarm control systems to CBC and NFPA standards.

Rick Guggiana | Local Project Electrical Engineer and Project Quality Control

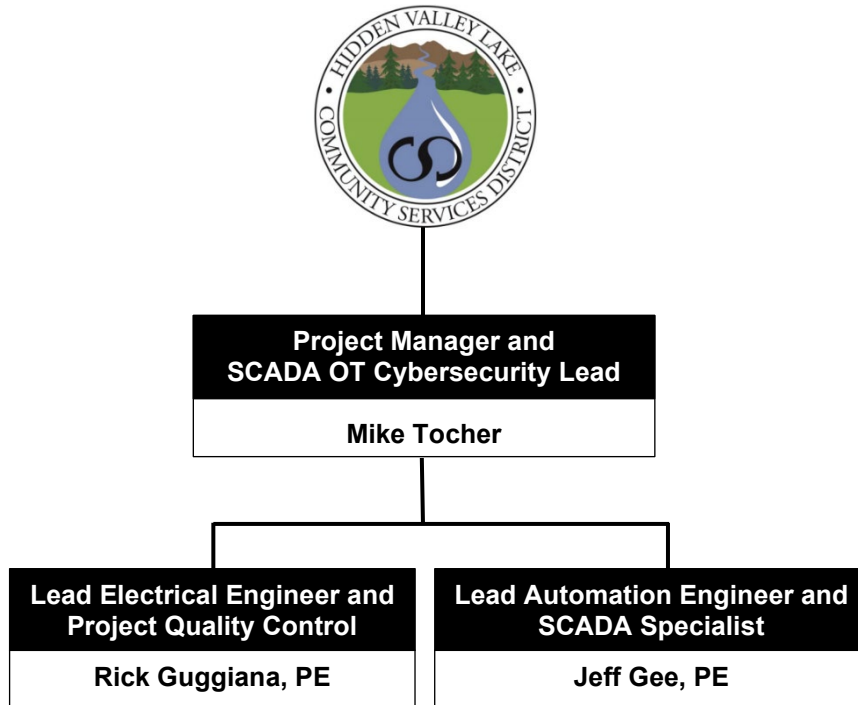
Rick Guggiana will serve as our local Project Electrical Engineer and Project Quality Control officer. He is located in our Santa Rosa office and is a licensed electrical engineer with over 29 years of experience in the electrical, controls, and instrumentation fields and has extensive experience in site and building power, medium voltage distribution, lighting, motor controls, electrical system studies, Supervisory Control and Data Acquisition (SCADA) systems, and instrumentation. His background includes a wide spectrum of clients from commercial to industrial to government.

Jeff Gee | Process Automation Engineer and SCADA System Specialist

Jeff is an Associate at GHD and a Licensed Electrical Engineer. Jeff manages a number of automation engineers, and is a member of GHD's Advanced Automation Group. He has more than 31 years of experience in automation system evaluation, design, construction, troubleshooting, and project coordination with small and large scale electrical and automation projects. His electrical work has encompassed many industrial 480 Volt system designs inclusive of transformer selection, motor controls, VFD specification, grounding, and coordination. His automation work history spans many hardware and software platforms across several PLC, HMI, SCADA development environments. Key areas of experience include instrumentation specifications, communications systems design, upgrades to existing

automation architectures, software project management, construction management, Arc Flash Hazard assessments, and computer based

Arc Flash Potential studies. In addition he is the GHD Corporate Electrical Safety Captain and has developed an 8-hour Electrical Safety Course based upon NFPA-70E that he regularly delivers internally and externally.



Proposed Project Org Chart

Approach

To develop a comprehensive understanding of the District's needs and detailed design criteria, we have developed a step-wise approach to the technical content delivery for this project:

- Step 1 - Existing System Understanding
- Step 2 - Needs Assessment (Gap Analysis)
- Step 3 - Alternatives Analysis and Selection
- Step 4 - Preliminary Design Requirements and SCADA Master Plan
- Step 5 - Cybersecurity Master Plan

In step 1, we will collect information pertaining to the existing water and wastewater collection and treatment systems, process instrumentation, control and automation systems, communications in infrastructure, and SCADA system. This will provide a baseline of

information that will include the development and sharing of as-built drawings, detailed listing of assets, and process narratives.

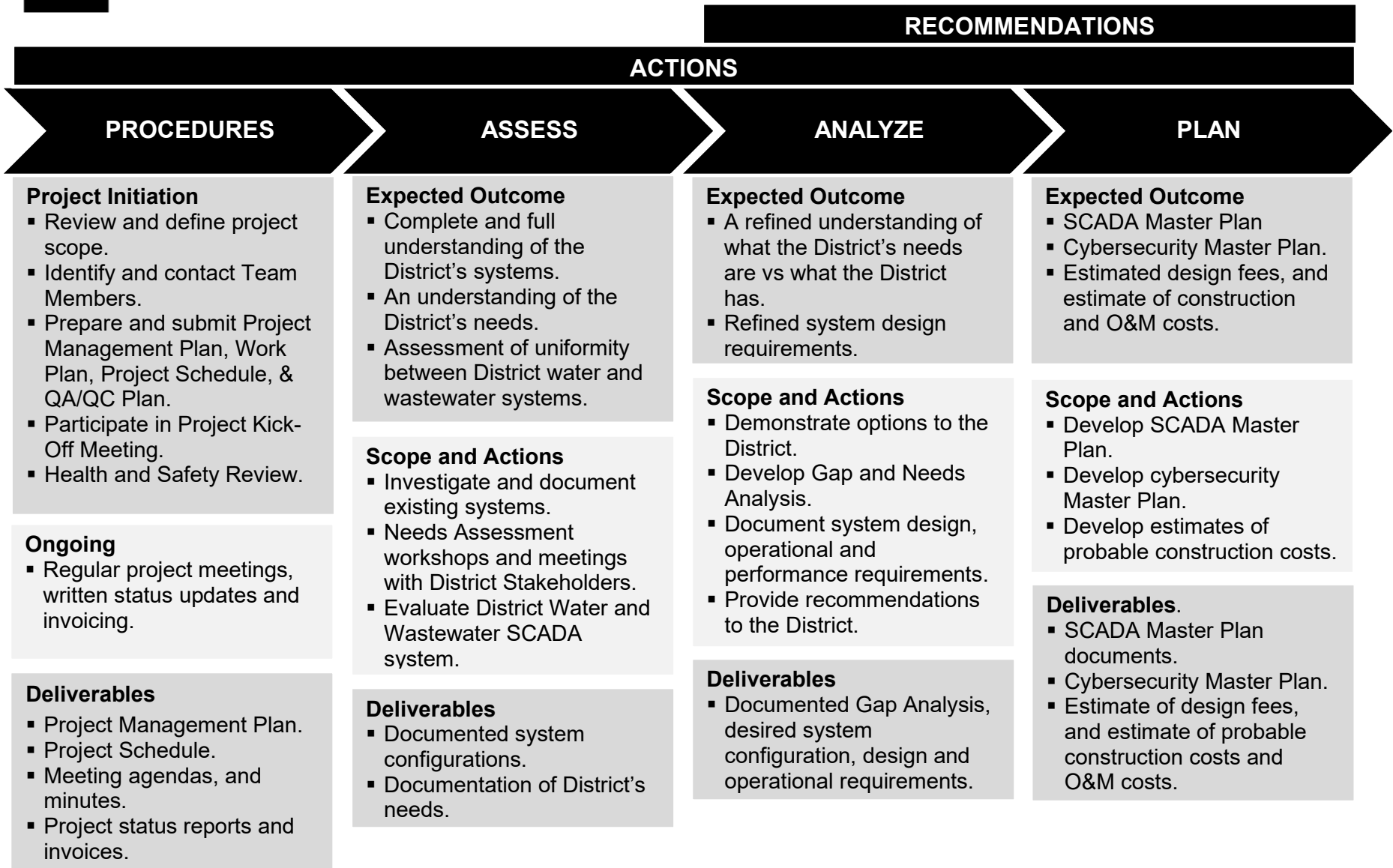
In step 2, we will be conducting workshops with District stake holders to develop a detailed understanding of existing and future process automation needs, data archiving and reporting requirements, and future system collection and treatment process needs. This will allow GHD to then identify the functional gaps within the existing SCADA system.

In step 3, we will be developing alternative options that meet the present and future needs of the District. These alternative options will then be discussed in a workshop with the stakeholders and final solutions will be selected.

In step 4, we will develop a comprehensive SCADA Master Plan document. This will include all the information from steps 1 through 3 including as built documents, a list of assets, process narratives, alternatives development, and alternatives selection. This also includes a schematic level representation of the Phase 2 improvement requirements.

In step 5, we will develop a cybersecurity master plan. Developing a cybersecurity master plan is a process used to document, define and set the cybersecurity objectives, desired functionality, design criteria, reliability metrics, and the cybersecurity policies used to secure the system.

Ultimately, the SCADA and cybersecurity master plan can then be used to develop a detailed scope of work and cost estimate for a new or updated SCADA system that will meet the current and anticipated future needs of the District. The entire proposed process is shown graphically below.



GHD's Approach To Successfully Addressing The District's SCADA Improvement Project, Phase 1

GHD

669 Pacific Street Suite A San Luis Obispo California 93401 USA
T 805 242 0461 W www.ghd.com

Therefore, GHD is proposing to provide the following scope within this proposal:

Task 1 - Project Management

1. Host project kickoff meeting with the District.
2. Project management: Develop project management plan, work plan, project schedule, and Quality Assurance (QA) and Quality Control (QC) plan.
3. Host regular project meetings.
4. Provide regular written status updates to the District.

Task 2 - Assess Existing Water and Wastewater Systems

1. Work with key District stakeholders to gain a complete understanding of the District's water and wastewater systems.
2. Investigate and document the District's water and wastewater systems, existing SCADA system, instrumentation and controls, and automation systems.
3. Hold workshops with key District stakeholders to determine what the District's present and future needs are.

Task 3- Analyze The Existing Water System

1. Perform a Gap and Needs analysis.
2. Demonstrate options to the District that will assist the District in determining the appropriate solutions that will meet the District's needs.
3. Provide recommendations to the District.
4. Document system design, operational and performance requirements.

Task 4 - Plan

1. Develop comprehensive SCADA Master Plan documents.
2. Develop comprehensive Cybersecurity Master Plan documents.
3. Develop estimate of design fees associated with final design documents, estimate of probable construction costs, and estimate of probable Operational & Maintenance (O&M) costs.

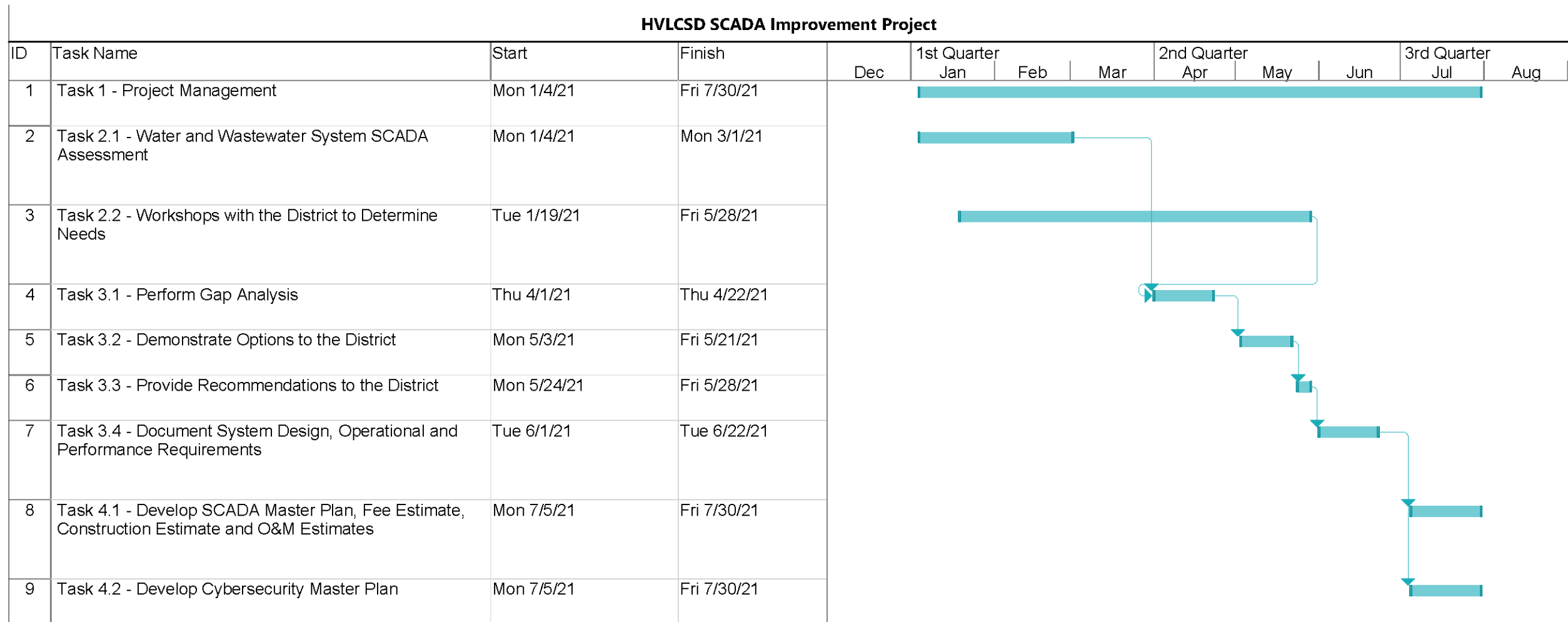
GHD Proposal (11-17-2020)

HVLCSD SCADA Improvement Project, Phase 1

Task Description / Scope of Services Item		Project Management \$205 /HR	Sr. Electrical Engineer \$220 /HR	Sr. Automation Engineer \$240 /HR	Sr. Cybersecurity Engineer \$205 /HR	Drafting Support \$150 /HR	Admin Support \$100 /HR	Total GHD Hours	Total GHD	Other Direct Costs 6% of Total Fees	Total
Task 1 – Project Management											
Task 1.1	Kickoff Meeting	4	4	4	4		2	18	\$3,680	\$221	\$3,901
Task 1.2	Project Management and Work Plan	24	4				8	36	\$6,600	\$396	\$6,996
Task 1.3	Project Meetings and Workshops	8	8	8	8		4	36	\$7,360	\$442	\$7,802
Task - Subtotal		36	16	12	12	0	14	90	\$17,640	\$1,058	\$18,698
Task 2 -Water and Wastewater System SCADA Assessment											
Task 2.1	Site Investigations and Development of System Documentation		40	24	24	8		96	\$20,680	\$1,241	\$21,921
Task 2.2	Workshops with District Staff to Document Needs		8	8	8			24	\$5,320	\$319	\$5,639
Task - Subtotal		0	48	32	32	8	0	120	\$26,000	\$1,560	\$27,560
Task 3 - Analyze The Existing Water and Wastewater Systems											
Task 3.1	Perform a Gap and Needs Analysis		8	40	8			56	\$13,000	\$780	\$13,780
Task 3.2	Demonstrate Options to the District		8	8	8			24	\$5,320	\$319	\$5,639
Task 3.3	Provide Recommendations to the District		4	8	4			16	\$3,620	\$217	\$3,837
Task 3.4	Document System Design, Operational and Performance Requirements		8	8	8	8		32	\$6,520	\$391	\$6,911
Task - Subtotal		0	28	64	28	8	0	128	\$28,460	\$1,708	\$30,168
Task 4 - Water System SCADA Improvement Recommendations											
Task 4.1	Develop SCADA Master Plan, Estimate of Design Fees, and Estimate of Construction and O&M Costs		12	40			8	60	\$13,040	\$782	\$13,822
Task 4.2	Develop Cybersecurity Plan				30			30	\$6,150	\$369	\$6,519
Task - Subtotal		0	12	40	30	0	8	90	\$19,190	\$1,151	\$20,341
Labor Subtotals by Classification =		36	104	148	102	16	22	428	Total Fee = \$73,511		

GHD's Professional Services Fee Breakdown

GHD is proposing to provide the services outlined within this proposal for a lump sum fee of \$73,500



GHD is proposing to provide the services outlined within this proposal starting January, 2021 and ending July, 2021.

GHD very much appreciates the opportunity to work with the District.

If you have any questions regarding this proposal or wish to discuss further, please contact me at 805.801.0949 or via email at Mike.Tocher@ghd.com

Sincerely,

GHD INC.
Mike Tocher

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: March 15, 2021

AGENDA ITEM: Review and Discuss: Consider approval of increase to legal budget in the amount of \$39,000 for work in support of proposed FLASHES project.

RECOMMENDATIONS: Recommend the GM be authorized to make budget modifications as necessary.

FINANCIAL IMPACT: Not to exceed \$39,000

FUND: 325/313

BACKGROUND:

The FLASHES project has been delayed due to uncertainty in Investment Tax Credit eligibility. Until this eligibility can be defined, an interconnection agreement with CAISO will be postponed at least one year.

Over the past few months, District Counsel has been providing advice to staff and the ad hoc committee with respect to the project proposed by Trane Energy Services. Both Doug Coty and Morgan Biggerstaff, from Bold, Polisner Maddow, Nelson, and Judson, have been engaged relative to the project and will continue to provide general advice and review of proposed agreements as the project proceeds.

Counsel has recommended that the District retain the services of an independent financial advisory firm to perform due diligence and to evaluate the project and make recommendations as appropriate. Based on prior working experience, Counsel has recommended Clean Energy Capital, a financial advisory and project management firm based in San Francisco. Clean Energy Capital has significant experience with large, complex energy and water projects, including projects similar to that proposed by Trane Energy Services. Clean Energy Capital has provided a proposal and scope of work with a total budget of \$39,000 to perform project due diligence, review the financial feasibility of the project, review the projects benefits to the District, and to provide a comprehensive evaluation of the proposed project with a recommendation.

Staff would like to move forward with Counsel's recommendation and support the retention and use of experts, to facilitate a comprehensive review of the current Letter of Commitment and Term Sheet.

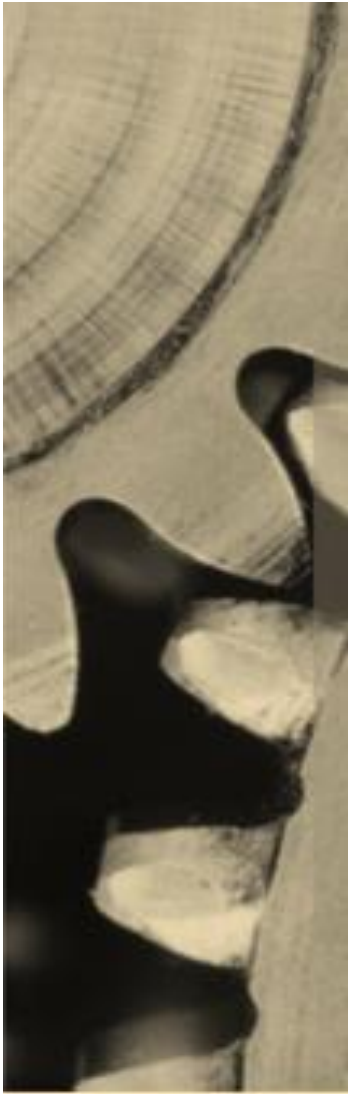


Qualifications Presentation

Representative Engagements

January 2021





Section 1 – Representative Engagements California Water Sector

Selected California Water Experience (1 of 2)

Contra Costa Water District



Multi-Agency Storage and Conveyance Project
Financial Advisory

Ongoing

Padre Dam Municipal Water District



Multi-Agency Indirect Potable Reuse Project
Financial Advisory

Ongoing

Santa Clara Valley Water District



Valley Water
Expedited Purified Water Program, an Indirect Potable Reuse Public-Private Partnership

Ongoing

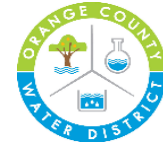
South Coast Water District



Doheny Desalination Project and Full Financial Advisory Services

Ongoing

Orange County Water District



Desalination Project
Public-Private Partnership

Ongoing

Del Puerto Canyon Reservoir Project



Full financial advisory Services including Financial feasibility Assessment

Ongoing

San Francisco Public Utilities Commission



CleanPowerSF Inaugural Credit Rating

Ongoing

San Diego County Water Authority



Carlsbad Desalination Project Financial Advisory and Full financial Advisory Services

Ongoing

Montecito Water District



Montecito Water Supply Contract Negotiation

2020

San Francisco Public Utilities Commission



Confidential Financial Advisory Engagement, Partial Financial Advisory Services

2019

Selected California Water Experience (2 of 2)

South Coast Water District



Water Production Cost Analysis and Sensitivities

2020

Del Puerto Water District



Inaugural Credit Rating

2019

San Francisco Public Utilities Commission



Confidential Financial Advisory Engagement, Partial Financial Advisory Services

2019

San Diego County Water Authority



Intake System Modification

2019

San Diego County Sanitation District



Credit Rating Assessment, Partial Financial Advisory Services

2019

Santa Clara Valley Water District



Confidential Financial Advisory Engagement, Partial Financial Advisory Services

Ongoing

San Diego Public Utilities Department



Energy Economics Advisory Services, Partial Financial Advisory Services

2019

Orange County Water District



Huntington Beach Desalination Project

2018

San Diego County Water Authority



Water Purchase Agreement Implementation

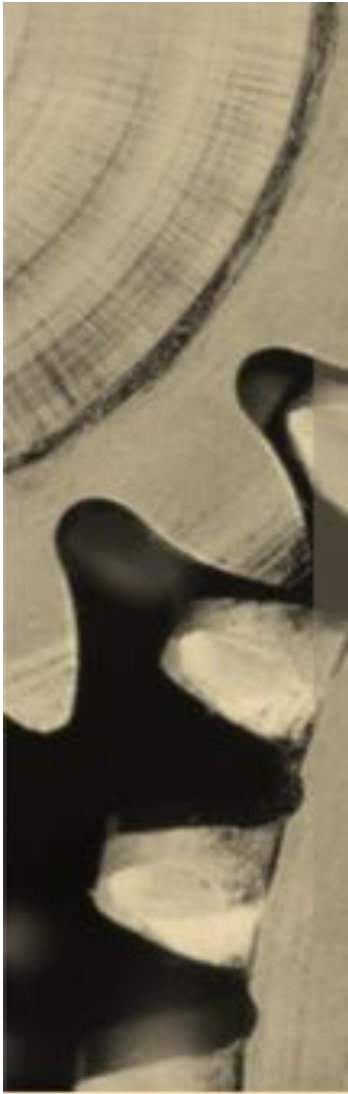
2015

Contra Costa Water District



Transfer-Bethany Pipeline Project

2015



Section 2 – Representative Engagements Energy and Project Finance

Project Finance Advisory



San Diego County Water Authority

**\$1 Billion
Carlsbad Seawater Desalination
Project**



**POSEIDON
RESOURCES**

Project Financial Advisor



**CONTRA COSTA
WATER DISTRICT**

**Transfer-Bethany Pipeline
Project**

Project Financial Advisor



**\$8 Billion
LNG Exportation Project**

Project Financial Advisor



Distributed Solar Projects

Financial Advisor



**Geothermal
Project Development**

Financial Advisor & Placement Agent



**Floating Regasification
Project**

Project Financial Advisor



**Solar CHP
Project Development**

Project Marketing



Distributed Solar Projects



Financial Advisor



Corporate Finance / M&A Advisory



Growth Equity Raise

Corporate Finance



**\$428 Million
Wind Farm Acquisition**



Buy-Side Advisor



**\$8 Billion
LNG Exportation Project**

Sell-Side Advisor



Corporate Acquisition

Buy-Side Advisor



**Round B
Equity Raise**

Corporate Finance



Asset Acquisition



Buy-Side Advisor



**Acquisition of
Distributed Solar Projects**

Buy-Side Advisor



Corporate Finance Advisory

Corporate Finance



Debt / Equity Placement



Pacific Energy Solutions, LLC

Utility Scale
Federal Government Solar
Project

Financial Advisor & Placement Agent



Vendor Financing Program

Program Administrator



\$9 Million
Solar Rooftop Facility



Financial Advisor & Placement Agent



California
Construction
Authority

\$13 Million
Solar Lease Refinancing

Financial Advisor



\$6 Million
CHP Facility



Financial Advisor & Placement Agent




\$8 Billion
LNG Exportation Project

Financial Advisor





Valuation / Feasibility / Model Audit





Utility Scale Solar Project

Model Audit



Waste Heat-to-Energy Project Development

Financial Feasibility



Waste-to-Energy Project Development

Financial Feasibility



Carlsbad Seawater Desalination Project




Model Audit



Carlsbad Seawater Desalination Project




Financial Feasibility



Wood-Pellet Project Development

Valuation



Asset Acquisition



Valuation



LNG Exportation Project

Model Audit



Clean Energy Capital

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David Moore

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Clean Energy Capital

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Vice President
Clean Energy Capital

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Amanda Hanson

Associate
Clean Energy Capital

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February 1, 2021

Doug Coty
General Counsel
Hidden Valley Lakes Community Services District
19400 Hartmann Road
Hidden Valley Lake CA 95467

Re: Engagement Letter between Clean Energy Capital and Hidden Valley Lakes Community Services District

Dear Doug:

It was a pleasure to speak with you regarding the Hidden Valley Lakes Community Services District (the “**District**”) and the proposed pumped storage project (the “**Project**”) that is being developed by Trane and/or Trane Energy Services (“**Trane**”).

As we understand it, the Project consists of an approximately 25-million-gallon hilltop water storage tank; pipelines, pumps and generation turbines providing water conveyance and energy generation, an approximately 35 megawatt solar generation facility, and related facilities. The Project is in development stage. When completed and operational, the Project will provide energy and energy services to third-party purchasers (“**Offtakers**”), and ancillary services and benefits to the District including fire fighting.

As we further understand, Trane intends to locate a significant portion of Project facilities on land owned by the District. Trane has proposed entering into one or more agreements with the District pursuant to which the District will provide long-term use of its land and participate in certain other aspects of the Project such as the provision of non-recourse Project financing (such proposed relationship, the “**Proposal**”). Trane seeks to establish terms for the proposed partnering relationship with the District in the near term, to support Trane’s intended electricity grid interconnection application in the second quarter of 2021.

Clean Energy Capital Securities LLC (“**Clean Energy Capital**” or “**CEC**”) has significant expertise and experience in both municipal water utility financial advisory and energy project development/project finance. We have provided a summary presentation of Clean Energy Capital’s qualifications in our transmittal email. We understand that the District would like to engage Clean Energy Capital to assist the District in evaluating the Project and the Proposal. Clean Energy Capital hereby accepts this engagement and agrees to work as reasonably directed by the District. We are prepared to begin work immediately.

Scope of Service

We contemplate a two-phase engagement in which Phase 1 supports the District’s determination of whether and how to proceed with the Project, and Phase 2 supports Project implementation, contingent

upon a positive conclusion to Phase 1. Our current proposal is for Phase 1 services. Clean Energy Capital proposes to provide the following Phase 1 scope of service:

Phase 1 Services

- A. Project Due Diligence. Review Trane materials and presentations and conduct interviews with District and Trane staff. Assess the development status of the Project, including Trane’s progress to date, major development milestones, and development timeline. Identify key vulnerabilities and risk factors in bringing the Project into commercial operations. Report results to the District.
- B. Financial Feasibility Assessment. Review of Project proforma developed by Trane, assessing the source and quality of key inputs as well as the calculations derived therefrom. Develop a high-level independent proforma financial model to assess the financial viability and economic return of the Project. Report results to the District.
- C. Evaluation of Proposal to District. Review the Proposal to District. Identify and assess major partnering alternatives.
- D. Project Evaluation and Recommendation. Integrate findings in A, B, and C into an overall evaluation of the extent to which the Project and Proposal serves the needs and objectives of the District and its ratepayers. Develop and present a Project evaluation to the District, and, as directed by District staff, to the District’s Board of Directors.

Phase 2 Services

Based on the outcome of Phase 1, and as requested by the District, Clean Energy Capital will develop a scope of service and fee estimate for Phase 2. Neither party hereto is obligated to enter into a Phase 2 engagement.

Proposed Professional Staffing

Clean Energy Capital’s engagement hereunder shall be led by David Moore, the firm’s Managing Director and Chief Executive Officer. David expects to involve additional professionals at Clean Energy Capital in the engagement as follows:

David More, Managing Director and CEO	Overall Responsibility for Engagement
Brendan Dete, Managing Director	Project Due Diligence
Will Lockwood, Vice President	Proforma Financial Modeling
Amanda Hanson, Associate	General Support

Other than David’s role as lead on the engagement, Clean Energy Capital has sole discretion over its use of professional staff.

Compensation

In consideration for the services proposed above, the District shall pay Clean Energy Capital a Financial

Advisory Fee (“**Financial Advisory Fee**”) based on the time and hourly rates set forth in Attachment A hereto. The Financial Advisory Fee shall not exceed \$39,000 without prior written authorization from the District. The not-to-exceed amount is based on the time estimate set forth in Attachment B hereto. Clean Energy Capital shall bill monthly in arrears and amounts due shall be paid by the District within 30 days of receipt of an invoice.

Timeframe

We propose to complete our proposed Phase 1 scope of service by the end of April 2021.

Use of Opinions and Advice and Limitations on Liabilities

All opinions and advice provided to the District in connection with this engagement are intended solely for the benefit and use of the District. Such opinions and advice are not a guaranty of any specific outcome, which outcome may be subject to factors beyond Clean Energy Capital’s ability to predict or control. The District agrees to hold Clean Energy Capital harmless, and to take reasonable efforts to indemnify and protect Clean Energy Capital, from any liabilities arising from its engagement hereunder, unless such liabilities arise from gross negligence, willful misconduct or willful omissions of Clean Energy Capital in the performance of its services hereunder.

Additional Provisions

This letter sets forth the entire understanding of the parties with respect to the engagement described herein, supersedes all previous discussions and agreements, and shall be governed by and construed in accordance with the laws of the State of California.

If the foregoing correctly sets forth the understanding and agreement between Clean Energy Capital and the District, please so indicate in the space provided below, whereupon this letter shall constitute a binding agreement as of the date first written above.

Sincerely,



David M. Moore, Managing Director
Clean Energy Capital Securities LLC

Accepted and Agreed,

By: _____

Title: _____

Hidden Valley Lakes Community Services District

Attachment A
Fee Schedule

Title	Hourly Rate
David Moore - Managing Director	\$350
Brendan Dete - Managing Director	\$300
Will Lockwood - Vice President	\$250
Amanda Hanson - Associate	\$200

Attachment B
Scope of Service and Not-to-Exceed Amount

Hidden Valley Lakes Community Services District						
Phase 1 Scope of Service						
Estimated Hours and Billing per Task						
		<u>CEO</u>	<u>Managing</u>	<u>Vice</u>	<u>Associate</u>	
	<u>Position</u>	<u>Hours</u>	<u>Director</u>	<u>President</u>	<u>Hours</u>	
	Rate:	\$350	\$300	\$250	\$200	
<u>Hours / Cost Estimate by Task</u>						
A. Project Due Diligence						
	Review materials	8	4	2	2	
	Meetings and Interviews	6	4	2	2	
	Report results	8	2	0	1	
	Total Hours	22	10	4	5	
	Cost					\$12,700
B. Financial Feasibility						
	Financial Modeling & Analysis	8	0	16	0	
	Report results	8	0	6	0	
	Total Hours	16	0	22	0	
	Cost					\$11,100
C. Proposal to District						
	Review of Proposal(s)	8	0	0	0	
	Calls and Meetings	8	0	0	0	
	Report Results	4	0	0	0	
	Total Hours	20	0	0	0	
	Cost					\$7,000
D. Project Evaluation						
	Prepare presentation of results	8	0	0	8	
	Revisions	4	0	0	4	
	Board Presentation	2	0	2	2	
	Total Hours	14	0	2	14	
	Cost					\$8,200
	Total					\$39,000

WASTEWATER CAPITAL PROJECT DESCRIPTIONS	FY 2021/2022
Regulatory Compliance/I&I Mitigation	\$ 100,000
Diaster Mitigation/SCADA Upgrade	\$ 30,000
Diaster Recovery	\$ -
Mini-Excavator	\$ 25,000
Risk Management Plan/Chlorine Tank Auto Shut-Off	\$ 45,000
Regulatory Compliance/Dump Truck	\$ 37,500
IT Upgrades/Records Retention/Increase Storage Capacity	\$ -
Stormwater Master Planning/Mitigation	\$ 10,000
Regulatory Compliance/Manhole Rehap	\$ 50,000
	\$ 297,500
WATER CAPITAL PROJECT DESCRIPTIONS	FY 2021/2022
Wildfire Resilience/Reliable Water Supply/Replace Wooden Tanks	\$ 405,000
Diaster Mitigation/SCADA Upgrade	\$ 30,000
Reliable Water Supply/Automatic Metering Infrastructure	\$ 320,000
Wildfire Resilience/Reliable Water Supply/PSPS Backup Power Supply	\$ 50,000
IT Upgrade/Records Retention/Increase Storage Capacity	\$ 10,000
Reliable Water Supply/Leak Repair Mini-Excavator	\$ -
Regulatory Compliance/Dump Truck	\$ -
	\$ 815,000

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
SEWER ENTERPRISE FUND**

3/10/2021
11:55 AM

SEWER INTERPRISE FUND	2020-2021 BUDGET	2020-2021 To Date	2021-2022 Proposed
REVENUE	7/1/2020	3/5/2021	7/1/2021
120-4020 PERMIT & INSPECTION FEES	500	500	500
120-4036 DEVELOPER SEWER FEES	-	1,977	-
120-4040 LIEN RECORDING FEES	-	-	-
120-4045 AVAILABILITY FEES	5,500	4,096	5,500
120-4050 SALES OF RECLAIMED WATER	110,000	79,582	138,000
120-4111 COMMERCIAL SEWER USE	43,113	29,011	89,966
120-4112 GOVERNMENT SEWER USE	900	390	1,200
120-4116 SEWER USE CHARGES	1,217,940	861,762	1,495,786
120-4210 LATE FEE 10%	20,000	13,845	22,000
120 4300 MISC INCOME	2,500	527	2,500
120-4310 OTHER INCOME	-	2,902	2,600
120-4320 FEMA/CalOES Grants	88,776	200,969	-
120-4550 INTEREST INCOME	1,700	592	2,000
120-4580 TRANSFER IN	-	138,914	-
TOTAL REVENUE	1,490,929	1,335,065	1,760,051

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
SEWER ENTERPRISE FUND**

3/10/2021
11:55 AM

SEWER INTERPRISE FUND	2020-2021	2020-2021	2021-2022	
	BUDGET	To Date	Proposed	
SEWER INTERPRISE FUND	BUDGET	To Date	Proposed	
EXPENSES	7/1/2020	3/5/2021	Difference	7/1/2021
120-5-10-5010 ADMIN SALARY & WAGES	252,875	173,396	79,479	283,094
120-5-30-5010 FIELD SALARY & WAGES	255,455	137,809	117,646	246,199
120-5-40-5010 DIRECTORS SALARY & WAGES	3,000	2,153	847	3,000
120-5-10-5020 ADMIN EMPLOYEE BENEFITS (HEALTH)	91,844	41,646	50,198	84,634
120-5-30-5020 FIELD EMPLOYEE BENEFITS (HEALTH)	106,340	60,874	45,466	127,951
120-5-40-5020 DIRECTOR BENEFITS (TAXES)	230	85	145	230
120-5-10-5021 ADMIN RETIREMENT BENEFITS (Pers)	47,189	30,899	16,290	56,168
120-5-30-5021 FIELD RETIREMENT BENEFITS (Pers)	46,661	26,000	20,661	54,806
120-5-30-5022 FIELD CLOTHING ALLOWANCE	1,800	706	1,094	2,000
120-5-00-5024 WORKERS' COMP INSURANCE	15,000	12,991	2,009	15,000
120-5-00-5025 RETIREE HEALTH BENEFITS	14,000	4,826	9,174	8,189
120-5-00-5026 COBRA	0	0	-	0
120-5-40-5030 DIRECTOR HEALTH BENEFITS	36,000	15,666	20,334	24,178
120-5-00-5040 ELECTION EXPENSE	12,000	17	11,983	-
120-5-00-5060 GASOLINE, OIL & FUEL	20,000	8,542	11,458	20,000
120-5-00-5061 VEHICLE MAINT	18,000	15,823	2,177	18,000
120-5-00-5062 TAXES & LICENSE	800	214	586	800
120-5-10-5063 ADMIN CERTIFICATIONS	500	-	500	500
120-5-30-5063 FIELD CERTIFICATIONS	1,500	250	1,250	1,500
120-5-00-5074 PROPERTY/LIABILITY INSURANCE	54,066	59,154	(5,088)	62,000
120-5-00-5075 BANK FEES	21,000	16,903	4,097	21,000
120-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	7,500	11,386	(3,886)	11,000
120-5-10-5090 ADMIN OFFICE SUPPLIES	4,000	2,162	1,838	4,000
120-5-30-5090 FIELD OFFICE SUPPLIES	1,000	315	685	1,000
120-5-00-5092 POSTAGE & SHIPPING	7,000	4,807	2,193	7,000
120-5-00-5110 CONTRACTUAL SERVICES	-	-	-	-
120-5-00-5121 LEGAL SERVICES	20,000	10,424	9,576	12,000
120-5-00-5122 ENGINEERING SERVICES	50,000	30,749	19,251	50,000
120-5-00-5123 OTHER PROFESSIONAL SERVICE	50,000	30,631	19,369	20,000
120-5-00-5126 AUDIT SERVICES	7,500	5,950	1,550	7,500
120-5-00-5130 PRINTING & PUBLICATION	5,000	2,565	2,435	5,000
120-5-00-5135 NEWSLETTER	500	-	500	500
120-5-00-5145 EQUIPMENT RENTAL	5,000	3,734	1,266	5,000
120-5-00-5148 OPERATING SUPPLIES	48,000	37,647	10,353	48,000
120-5-00-5150 REPAIR & REPLACE	145,000	135,419	9,581	145,000
120-5-00-5155 MAINT BLDG & GROUNDS	8,000	4,586	3,414	8,000
120-5-00-5156 CUSTODIAL SERVICES	16,500	8,059	8,442	16,500
120-5-00-5157 SECURITY	500	1,083	(583)	600
120-5-00-5160 SLUDGE DISPOSAL	45,000	28,256	16,744	45,000
120-5-10-5170 ADMIN TRAVEL MILEAGE	1,500	784	716	2,500

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
SEWER ENTERPRISE FUND**

3/10/2021
11:55 AM

SEWER INTERPRISE FUND	2020-2021 BUDGET	2020-2021 To Date	2021-2022 Proposed	
120-5-30-5170 FIELD TRAVEL MILEAGE	500	39	461	500
120-5-40-5170 DIRECTORS TRAVEL MILEAGE	200	-	200	200
120-5-10-5175 ADMIN EDUCATION/SEMINARS	4,000	671	3,329	4,000
120-5-30-5175 FIELD EDUCATION/SEMINARS	4,000	387	3,613	4,000
120-5-40-5175 DIRECTORS EDUCATION/SEMINARS	1,500	-	1,500	1,500
120-5-40-5176 DIRECTOR TRAINING	3,600	-	3,600	3,600
120-5-10-5179 ADM MISC EXPENSE	350	100	250	350
120-5-00-5165 TERTIARY PONT MAINTENANCE	50,000	50,000	-	50,000
120-5-00-5191 TELEPHONE	11,000	7,699	3,301	12,000
120-5-00-5192 ELECTRICITY	65,000	74,097	(9,097)	95,000
120-5-00-5193 OTHER UTILITIES	2,600	1,767	833	2,500
120-5-00-5194 IT SERVICES	36,500	32,085	4,415	38,000
120-5-00-5195 ENV/MONITORING	35,000	23,326	11,674	35,000
120-5-00-5196 RISK MANAGEMENT	-	-	-	-
120-5-00-5198 ANNUAL OPERATING FEES	2,000	4,743	(2,743)	5,000
120-5-00-5310 EQUIPMENT - FIELD	1,000	1,137	(137)	1,200
120-5-00-5311 EQUIPMENT - OFFICE	1,000	2,662	(1,662)	3,000
120-5-00-5312 TOOLS - FIELD	1,500	11	1,489	1,500
120-5-00-5315 SAFETY EQUIPMENT	1,500	24,168	(22,668)	3,500
120-5-00-5545 RECORDING FEES	250	149	102	250
120-5-00-5580 TRANSFER OUT	-	97,200	(97,200)	-
120-5-00-5590 NON-OPERATING OTHER	-	-	-	-
120-5-00-5600 CONTINGENCY	-	-	-	-
120-5-60-6009 ACCESS RD	178,782	137,395	41,387	-
120-5-60-60010 LNU COMPLEX A- Debris (Firebreak/Chip	-	18,131	(18,131)	-
120-5-60-6011 LNU COMPLEX B- EPS (HVAC/Generators	-	30,729	(30,729)	-
120-5-70-7201 I & I	-	15,535	(15,535)	-
219 USDA SOLAR PRINCIPAL	17,000	17,000	-	17,500
219 USDA SOLAR INTEREST	15,255	15,255	-	14,738
TOTAL EXPENDITURES	1,852,797	1,480,794	372,003	1,711,186

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
SEWER ENTERPRISE FUND

3/10/2021
11:55 AM

SEWER

Revenue	CSD Total	NBS Proposed	Difference
Sewer	1,586,951	1,586,951	0
Recycled	138,000	137,984	16
Other	35,100	35,117	(17)
Interest			-
Total	1,760,051	1,760,052	(1)

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
SEWER ENTERPRISE FUND

3/10/2021
11:55 AM

SEWER

Expense		CSD Total	NBS Proposed	Difference
Salary	Benefits			
532,293	356,156	888,449	899,927	(11,478)
				-
All Other Expenses				
796,200		796,200	794,589	1,611
		1,684,649	1,694,516	(9,867)
Debt - SOLAR				
32,238		32,238	32,238	\$ (1)
Rate Funded Capital Expense				
		297,500	-	
TOTAL REVENUE		1,760,051	1,760,052	(1)
TOTAL EXPENSES		2,014,386	1,726,754	287,632
Difference (FUND 314)		(254,335)	33,298	(287,633)

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER ENTERPRISE FUND**

3/10/2021
11:58 AM

WATER INTERPRISE FUND REVENUE	2020-2021 BUDGET 7/1/2020	2020-2021 To Date 3/5/2021	Difference	2021-2022 Proposed 7/1/2021
130-4035 RECONNECT FEES	12,000	70	11,930	5,000
130-4036 DEVELOPER FEES WATER	-	1,977	(1,977)	-
130-4038 COMM WATER METER INSTALL	-	-	-	-
130-4039 WATER CONNECTION FEE (METER)	-	2,632	(2,632)	20,000
130-4040 LIEN RECORDING FEES	1,200	3,763	(2,563)	1,200
130-4045 AVAILABILITY FEES	22,000	16,442	5,558	22,000
130-4110 COMMERCIAL WATER USE	95,295	37,927	57,368	127,686
130-4112 GOVERNMENT WATER USE	6,000	3,236	2,764	6,200
130-4115 WATER USE CHARGES	1,968,074	1,398,573	569,501	2,462,899
130-4210 LATE FEE 10%	32,000	23,192	8,808	32,000
130 4215 RETURNED CHECK FEE	1,000	200	800	200
130-4300 MISC INCOME	3,000	1,567	1,433	1,500
130-4310 OTHER INCOME	1,500	2,902	(1,402)	1,500
130-4320 FEMA/CalOES GRANTS	30,000	1,463	28,538	-
130-4550 INTEREST INCOME	3,500	1,061	2,439	4,052
130-4580 TRANSFER IN	-	6,523	(6,523)	-
	-		-	
TOTAL REVENUE	2,175,569	1,501,528	674,041	2,684,237

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER ENTERPRISE FUND**

3/10/2021
11:58 AM

WATER INTERPRISE FUND	2020-2021 BUDGET	2020-2021 To Date		2021-2022 Proposed
WATER INTERPRISE FUND	BUDGET	To Date		Proposed
EXPENSES	7/1/2020	3/5/2021	Difference	7/1/2021
130-5-10-5010 ADMIN SALARY & WAGES	282,875	173,396	109,479	283,094
130-5-30-5010 FIELD SALARY & WAGES	225,455	152,268	73,187	246,199
130-5-40-5010 DIRECTORS SALARY & WAGES	3,000	2,153	847	3,000
130-5-10-5020 ADMIN EMPLOYEE BENEFITS (HEALTH)	91,844	41,646	50,198	84,634
130-5-30-5020 FIELD EMPLOYEE BENEFITS (HEALTH)	106,340	60,839	45,501	127,951
130-5-40-5020 DIRECTOR BENEFITS (TAXES)	120	85	35	230
130-5-10-5021 ADMIN RETIREMENT BENEFITS (Pers)	47,189	30,942	16,247	56,168
130-5-30-5021 FIELD RETIREMENT BENEFITS (Pers)	54,806	27,485	27,321	54,806
130-5-30-5022 FIELD CLOTHING ALLOWANCE	1,800	707	1,093	2,000
130-5-00-5024 WORKERS' COMP INSURANCE	15,000	12,991	2,009	15,000
130-5-00-5025 RETIREE HEALTH BENEFITS	14,000	4,827	9,173	8,189
130-5-40-5030 DIRECTOR HEALTH BENEFITS	42,000	15,666	26,334	24,178
130-5-00-5040 ELECTION EXPENSE	12,000	17	11,983	-
130-5-00-5060 GASOLINE, OIL & FUEL	20,000	8,651	11,349	20,000
130-5-00-5061 VEHICLE MAINT	12,500	7,625	4,875	12,500
130-5-00-5062 TAXES & LICENSE	1,200	214	986	1,200
130-5-10-5063 ADMIN CERTIFICATIONS	-	-	-	200
130-5-30-5063 FIELD CERTIFICATIONS	600	250	350	600
130-5-00-5074 PROPETY/LIABILITY INSURANCE	54,055	59,154	(5,099)	60,000
130-5-00-5075 BANK FEES	21,000	16,943	4,057	21,000
130-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	24,600	28,246	(3,646)	28,000
130-5-10-5090 ADMIN OFFICE SUPPLIES	4,000	2,162	1,838	4,000
130-5-30-5090 FIELD OFFICE SUPPLIES	1,000	267	733	1,000
130-5-00-5092 POSTAGE & SHIPPING	6,500	4,807	1,693	7,000
130-5-00-5110 CONTRACTUAL SERVICES	-	-	-	-
130-5-00-5121 LEGAL SERVICES	20,000	11,605	8,395	65,000
130-5-00-5122 ENGINEERING SERVICES	60,000	6,389	53,611	65,000
130-5-00-5123 OTHER PROFESSIONAL SERVICE	50,000	25,995	24,005	45,000
130-5-00-5124 WATER RIGHTS	50,000	1,887	48,113	-
130-5-00-5126 AUDIT SERVICES	7,500	5,950	1,550	7,500
130-5-00-5130 PRINTING & PUBLICATION	7,500	2,600	4,900	7,500
130-5-00-5135 NEWSLETTER	500	-	500	500
130-5-00-5140 RENT & LEASES	-	-	-	-
130-5-00-5145 EQUIPMENT RENTAL	45,000	5,029	39,971	10,000
130-5-00-5148 OPERATING SUPPLIES	5,000	3,441	1,559	5,000
130-5-00-5150 REPAIR & REPLACE	125,000	117,116	7,884	164,000
130-5-00-5155 MAINT BLDG & GROUNDS	12,000	8,494	3,506	12,000
130-5-00-5156 CUSTODIAL SERVICES	4,200	2,235	1,965	5,000
130-5-00-5157 SECURITY	5,000	723	4,277	5,000

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER ENTERPRISE FUND**

3/10/2021
11:58 AM

WATER INTERPRISE FUND	2020-2021 BUDGET	2020-2021 To Date		2021-2022 Proposed
130-5-10-5170 ADMIN TRAVEL MILEAGE	2,000	784	1,216	2,000
130-5-30-5170 FIELD TRAVEL MILEAGE	2,000	39	1,961	2,000
130-5-40-5170 DIRECTORS TRAVEL MILEAGE	200	-	200	200
130-5-10-5175 ADMIN EDUCATION/SEMINARS	4,000	771	3,229	4,000
130-5-30-5175 FIELD EDUCATION/SEMINARS	4,000	244	3,756	4,000
130-5-40-5175 DIRECTORS EDUCATION/SEMINARS	1,500	-	1,500	1,500
130-5-40-5176 DIRECTOR TRAINING	5,000	-	5,000	5,000
130-5-10-5179 ADM MISC EXPENSE	350	100	250	350
130-5-00-5191 TELEPHONE	11,000	7,499	3,501	11,000
130-5-00-5192 ELECTRICITY	150,000	152,086	(2,086)	178,000
130-5-00-5193 OTHER UTILITIES	2,500	1,779	721	2,500
130-5-00-5194 IT SERVICES	36,500	33,921	2,579	40,000
130-5-00-5195 ENV/MONITORING	17,000	7,092	9,908	17,000
130-5-00-5196 RISK MANAGEMENT	-	-	-	-
130-5-00-5198 ANNUAL OPERATING FEES	32,000	28,758	3,242	33,000
130-5-00-5310 EQUIPMENT - FIELD	1,000	1,137	(137)	1,000
130-5-00-5311 EQUIPMENT - OFFICE	1,000	2,662	(1,662)	1,000
130-5-00-5312 TOOLS - FIELD	1,500	11	1,489	1,500
130-5-00-5315 SAFETY EQUIPMENT	1,500	6,974	(5,474)	3,000
130-5-00-5505 WATER CONSERVATION	9,000	2,700	6,300	5,000
130-5-00-5545 RECORDING FEES	250	149	102	250
130-5-00-5580 TRANSFER OUT	467,830	327,637	140,193	-
130-5-00-5600 CONTINGENCY	-	-	-	-
130-5-60-6010 LNU COMPLEX-A Debris (Firebreak/Chip)	-	18,131	(18,131)	-
130-5-60-6011 LNU COMPLEX-B EPS (HVAC/Generator)	-	41,525	(41,525)	-
130-5-70-7101 VAC TRUCK	-	-	-	-
130-5-70-7202 GENERATORS	-	-	-	-
130-5-70-7204 TANK 9	-	8,293	(8,293)	-
130-5-70-7205 MMN WATER MAIN	-	35,694	(35,694)	-
218 CIEDB INTEREST LONG TERM DEBT	55,865	55,865	-	52,036
218 CIEDB LOAN ANNUAL FEE	4,816	4,816	-	4,486
218 CIEDB PRINCIPAL PMT	110,065	110,065	-	113,895
TOTAL EXPENDITURES	2,354,460	1,691,531	662,928	1,935,166

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER ENTERPRISE FUND

3/10/2021
11:58 AM

WATER

Revenue	CSD Total	NBS Proposed	Difference
Water	2,462,899	2,462,899	-
Non-Rate Revenue	83,400	72,827	10,573
Interest	4,052	4,052	-
Total	2,550,351	2,539,778	10,573

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT
WATER ENTERPRISE FUND**

3/10/2021
11:58 AM

WATER

Expense	CSD Total	NBS Proposed	Difference
Salary			
532,293	888,449	910,366	(21,917)
Benefits			
356,156			-
Water Rights			
-	-	51,420	(51,420)
Repair & Replace			
164,000	164,000	128,625	35,375
Electricity			
178,000	178,000	153,000	25,000
All Other Expenses			
534,300	534,300	521,586	12,714
Total	1,764,749	1,764,997	(248)
Debt			
170,417	170,417	170,416	1
Rate Funded Capital Expense			
	815,000	867,500	
TOTAL REVENUE	2,550,351	2,539,778	
TOTAL EXPENSES	2,750,166	2,802,913	
Difference (FUND 320)	(199,815)	(263,135)	