Donner Summit Public Utility District
Board of Directors Regular Meeting

Agenda
Tuesday, March 26, 2024 – 6:00 P.M.
DSPUD Office, 53823 Sherritt Lane, Soda Springs California

The Public is welcome to attend in person or participate by Zoom Webinar: Meeting ID, 851 8334 7521, Password: 416287

Any member of the public desiring to address the Board on any matter within the Jurisdictional Authority of the District or on a matter on the Agenda before or during the Boards consideration of that item may do so. After receiving recognition from the Board President, please give your Name and Address (City) and your comments or questions. In order that all interested parties have an opportunity to speak, please limit your comments to the specific topics of discussion.

Unless specifically noted, the Board of Directors may act upon all items on the Agenda.

1. **Call to Order**

2. **Roll Call**

3. **Clear the Agenda**

4. **Public Participation –** *This is time set aside for the public to address the Board on any matter not on the agenda. Comments related to any item already on the agenda should be addressed at the time that that item is considered. Each speaker will be limited to five minutes, but speaker time may be reduced at the discretion of the Board President if there are a large number of speakers on any given subject.*

5. **Consent Calendar**
   All items listed under the Consent Calendar are considered to be routine and will be approved by one motion. There will be no separate discussion of these items unless a member of the Board requests an item to be removed from the Consent Calendar for a separate action. Any items removed will be considered after the motion to approve the Consent Calendar.

   A. Approve Finance Report for March 2024
      1. **Cash Disbursements–General**, Month of February
      2. **Cash Disbursements–Payroll,** Month of February
      3. **Schedule of Cash and Reserves,** January
      4. **Accountants Financial Statements,** January

   B. Approve Regular Meeting Minutes for February 20, 2024

   C. Approve Safety Meeting Minutes for February 2024

   D. Approve Engagement Letter for Fiscal Year 2024 Audit

   E. Approve Engagement Letter for Calendar Year 2024 Accounting Services

6. **Department Reports**
   - **A. Administration - Steven Palmer, General Manager**
   - **B. Operations and Maintenance Summary, February**

7. **Information**
   - **A. Receive Budget to Actual Report for Second Quarter Fiscal Year 2024**

8. **Action**
   - **A. Public Hearing and Adoption of Resolutions to Form Community Facilities District 2024-1 and Incur Bonded Indebtedness for Public Facilities for the Sugar Bowl West and East Villages Sewer Project**
   - **B. Adopt the Water Supply Resiliency Study**
   - **C. Vote for Local Agency Formation Commission Special District Representatives**

9. **Director Reports:** *In accordance with Government Code Section 54954.2(a), Directors may make brief announcements or brief reports on their own activities (concerning the District). They may ask questions for clarification make a referral to staff or take action to have staff place a matter of business on a future agenda.*

10. **Adjournment**

Schedule of Upcoming Meetings

Regular Meeting – April 16, 2024
Regular Meeting – May 21, 2024
Regular Meeting – June 18, 2024

We certify that on March 22, 2024, a copy of this agenda was posted in public view at 53823 Sherritt Lane Soda Springs, California, and the Soda Springs General Store.

Deleane Mehler	Steven Palmer
Administrative Assistant	General Manager

Agenda Item: 5A.1

Donner Summit Public Utility District
Check List
All Bank Accounts
February 14, 2024

Check Number	Check Date	Payee	Amount
Vendor Checks			
10134	02/14/24	49ER WATER SERVICES	3,490.00
10135	02/14/24	49ER WATER SERVICES	120.00
10136	02/14/24	ALPEN LILY LLC	112.50
10137	02/14/24	ALSCO	137.22
10138	02/14/24	ALSCO	137.22
10139	02/14/24	AT&T	423.42
10140	02/14/24	AT&T	29.36
10141	02/14/24	BARNARD, VOGLER & CO.	7,342.37
10142	02/14/24	BATTERIES PLUS	53.75
10143	02/14/24	EMCOR SERVICES INC.	592.50
10144	02/14/24	EMCOR SERVICES INC.	4,439.00
10145	02/14/24	EMCOR SERVICES INC.	2,831.00
10146	02/14/24	EMPLOYER DRIVEN SOLUTIONS	419.00
10147	02/14/24	EVERS LAW GROUP	832.50
10148	02/14/24	FED-EX	8.74
10149	02/14/24	FED-EX	17.56
10150	02/14/24	GEI CONSULTANTS	10,131.60
10151	02/14/24	GEI CONSULTANTS	772.50
10152	02/14/24	GRAINGER	23.38
10153	02/14/24	GRAINGER	311.10
10154	02/14/24	GRAINGER	260.57
10155	02/14/24	HANSFORD ECONOMIC CONSULTING, LLC	223.75
10156	02/14/24	HANSFORD ECONOMIC CONSULTING, LLC	323.75
10157	02/14/24	HILLBERG & COMPANY	11,137.00
10158	02/14/24	HOLT OF CALIFORNIA	3,089.46
10159	02/14/24	HOLT OF CALIFORNIA	3,089.46
10160	02/14/24	HUMANA DENTAL INS. CO.	1,456.26
10161	02/14/24	MAPCOMMUNICATIONS	79.17
10162	02/14/24	NATIONAL LIFE INSURANCE CO.	62.17
10163	02/14/24	PARAGON PEST CONTROL	65.00
10164	02/14/24	PERFORMANE SYSTEMS INTEGRATION	420.00
10165	02/14/24	PITNEY BOWES PURCHASE POWER	488.78
10166	02/14/24	PRINCIPAL LIFE INSURANCE COMPANY	821.20
10167	02/14/24	SCHAELENE ROLLINS	520.00
10168	02/14/24	SIERRA MOUNTAIN PIPE & SUPPLY	14.96
10169	02/14/24	SILVERTIP SNOW REMOVAL	2,620.00
10170	02/14/24	SUBURBAN PROPANE	8,106.35
10171	02/14/24	SUBURBAN PROPANE	6,023.98
10172	02/14/24	SUBURBAN PROPANE	3,689.98
10173	02/14/24	SUMMIT HOME CARE	200.00
10174	02/14/24	SWRCB-DWOCP	60.00
10175	02/14/24	SWRCB-DWOCP	60.00
10176	02/14/24	TAHOE TRUCKEE SIERRA DISPOSAL-BIN	628.06
10178	02/14/24	TRUCKEE AUTO PARTS	47.03
10179	02/14/24	TRUCKEE AUTO PARTS	14.60
10180	02/14/24	USA BLUEBOOK	753.75
10181	02/14/24	TRANSAMERICA LIFE INSURANCE	194.19
10182	02/14/24	USA BLUEBOOK	976.97
10183	02/14/24	VARIED PRODUCT LINES	483.13
		Vendor Check Total	78,134.29
		Check List Total	78,134.29

Check count = 49

OK 2/16/24

Donner Summit Public Utility District
Check List
All Bank Accounts
February 28, 2024

Check Number	Check Date	Payee		Amount
Vendor Checks				
10184	02/28/24	ALHAMBRA & SIERRA SPRINGS		125.94
10185	02/28/24	ALSCO		136.55
10186	02/28/24	ANTHEM/BLUE CROSS		2,759.46
10187	02/28/24	AT&T		92.46
10188	02/28/24	AT&T		422.43
10189	02/28/24	AT&T		29.35
10190	02/28/24	AUBURN DODGE		1,104.68
10191	02/28/24	AUERBACH ENGINEERING CORP		32,643.88
10192	02/28/24	CORBIN WILLITS SYSTEMS, INC.		474.50
10193	02/28/24	CREATIVE TECHNOLOGIES		450.00
10194	02/28/24	DUDEK		6,021.11
10195	02/28/24	EMCOR SERVICES INC.		3,190.00
10196	02/28/24	FED-EX		8.74
10197	02/28/24	FED-EX		9.47
10198	02/28/24	GRAINGER		140.29
10199	02/28/24	MOUNTAIN HARDWARE & SPORTS		142.85
10200	02/28/24	PG&E COMPANY		15,146.11
10201	02/28/24	PG&E COMPANY		27,585.56
10202	02/28/24	PG&E COMPANY		187.75
10203	02/28/24	PIT. BOWES GLOBAL FINANCIAL SERVICES		225.60
10204	02/28/24	SKI CAT SNOWCAT RENTALS		19,519.50
10205	02/28/24	SUBURBAN PROPANE		9,248.89
10206	02/28/24	SWRCB		110.00
10207	02/28/24	SUBURBAN PROPANE		5,080.32
10208	02/28/24	TRUCKEE AUTO PARTS		51.83
10209	02/28/24	TRUCKEE OVERHEAD DOOR INC.		375.00
10210	02/28/24	USA BLUEBOOK		121.43
10211	02/28/24	USA BLUEBOOK		60.09
10212	02/28/24	USA BLUEBOOK		573.33
10213	02/28/24	WOODARD & CURRAN		595.00
			Vendor Check Total	126,632.12
			Check List Total	126,632.12

Check count = 30

Agenda Item: 5A.2

PAYROLL JOURNAL

0085 0085-T591 Donner Summit Public Utility

EMPLOYEE NAME / ID	DESCRIPTION	RATE	HOURS	EARNINGS	REIMB & OTHER PAYMENTS	WITHHOLDINGS		DEDUCTIONS		NET PAY ALLOCATIONS	
****** 30 WATER SEWER**											
King, James R	Regular			6,458.66		Social Security	406.64	457	150.00	Direct Deposit # 33	
49	Holiday		M8.0000			Medicare	95.10	Garnishment	1,292.31	**Check Amt**	0.00
	Life Ins Reimb Txble			100.00		Fed Income Tax	818.17	Loan Payment	454.24	Chkg 730	2,838.08
	Sick Accr-Memo				M1.85	CA Income Tax	431.97				
	Vacation -Memo				M4.62	CA Disability	72.15				
	EMPLOYEE TOTAL		8.0000	6,558.66			1,824.03		1,896.55	Net Pay	2,838.08
Patrick, Sean M	Regular	51.0800	67.7500	3,460.67		Social Security	301.39	457	450.00	Direct Deposit # 34	
59	Overtime	76.6200	6.0000	459.72		Medicare	70.49	Li Ins EEPost Tax	37.41	**Check Amt**	0.00
	Holiday	51.0800	10.0000	510.80		Fed Income Tax	451.99			Chkg 717	3,207.82
	Sick	51.0800	2.2500	114.93		CA Income Tax	288.55				
	Stand By			315.00		CA Disability	53.47				
	EMPLOYEE TOTAL		86.0000	4,861.12			1,165.89		487.41	Net Pay	3,207.82
Schott, Paul A	Regular	54.0500	70.0000	3,783.50		Social Security	341.85	457	850.00	Direct Deposit # 35	
14	Overtime	81.0750	4.0000	324.30		Medicare	79.95	Credit Un 2	150.00	**Check Amt**	0.00
	Holiday	54.0500	10.0000	540.50		Fed Income Tax	796.33			Chkg 019	2,920.63
	Life Ins Reimb Txble			100.00		CA Income Tax	314.39				
	Sick	54.0500	10.0000	540.50		CA Disability	60.65				
	Stand By			225.00							
	Sick Accr-Memo				M1.85						
	Vacation -Memo				M6.15						
	EMPLOYEE TOTAL		94.0000	5,513.80			1,593.17		1,000.00	Net Pay	2,920.63
Shelton, Joshua M...	Regular	37.6000	79.0000	2,970.40		Social Security	216.01	457	50.00	Direct Deposit # 36	
64	Holiday	37.6000	10.0000	376.00		Medicare	50.52			**Check Amt**	0.00
	Life Ins Reimb Txble			100.00		Fed Income Tax	299.85			Chkg 722	2,640.71
	Sick	37.6000	1.0000	37.60		CA Income Tax	188.59				
						CA Disability	38.32				
	EMPLOYEE TOTAL		90.0000	3,484.00			793.29		50.00	Net Pay	2,640.71
Vosburgh, Justin E	Regular	55.7000	60.0000	3,342.00		Social Security	287.43	457	200.00	Direct Deposit # 37	
57	Holiday	55.7000	10.0000	557.00		Medicare	67.22	Life Ins EE Post Tax	35.00	**Check Amt**	0.00
	Sick	55.7000	10.0000	557.00		Fed Income Tax	379.71	Loan 2	171.34	Chkg 400	3,152.21
	Stand By			180.00		CA Income Tax	292.09				
						CA Disability	51.00				
	CHECK 1 TOTAL		80.0000	4,636.00			1,077.45		406.34	Net Pay	3,152.21
	Overtime	83.5500	16.0000	1,336.80		Social Security	96.69			Direct Deposit # 38	
	Double Time	111.4000	2.0000	222.80		Medicare	22.62			**Check Amt**	0.00
						Fed Income Tax	43.65			Chkg 400	1,344.23
						CA Income Tax	35.25				
						CA Disability	17.16				
	CHECK 2 TOTAL		18.0000	1,559.60			215.37			Net Pay	1,344.23
	EMPLOYEE TOTAL		98.0000	6,195.60			1,292.82		406.34	Net Pay	4,496.44
****** 40 BOARD MEMBER**											
Combs, William C	Regular			250.00		Social Security	44.87			Direct Deposit # 39	
68	Health Stipend			473.68		Medicare	10.50			**Check Amt**	0.00
						CA Income Tax	6.98			Chkg 718	653.37

PAYROLL JOURNAL

0085 0085-T591 Donner Summit Public Utility

EMPLOYEE NAME / ID	HOURS, EARNINGS, REIMBURSEMENTS & OTHER PAYMENTS					WITHHOLDINGS		DEDUCTIONS		NET PAY ALLOCATIONS	
	DESCRIPTION	RATE	HOURS	EARNINGS	REIMB & OTHER PAYMENTS						
****** 40 BOARD MEMBER (cont.)**											
Combs, William C (cont.)											
68						CA Disability	7.96				
	EMPLOYEE TOTAL			723.68			70.31			Net Pay	653.37
Gamick, Philip	Regular			250.00		Social Security	75.94			Direct Deposit # 40	
28	Health Stipend			974.92		Medicare	17.76			**Check Amt**	0.00
						Fed Income Tax	60.18			Chkg 486	1,043.97
						CA Income Tax	13.60				
						CA Disability	13.47				
	EMPLOYEE TOTAL			1,224.92			180.95			Net Pay	1,043.97
Kaufman, Joan B	Regular			275.00		Social Security	88.21			Direct Deposit # 41	
67	Health Stipend			1,147.86		Medicare	20.63			**Check Amt**	0.00
						Fed Income Tax	94.44			Chkg 974	1,175.69
						CA Income Tax	28.24				
						CA Disability	15.65				
	EMPLOYEE TOTAL			1,422.86			247.17			Net Pay	1,175.69
Parkhurst, Dawn E	Regular			250.00		Social Security	63.90			Direct Deposit # 42	
66	Health Stipend			780.54		Medicare	14.95			**Check Amt**	0.00
						Fed Income Tax	297.36			Chkg 495	629.26
						CA Income Tax	13.73				
						CA Disability	11.34				
	EMPLOYEE TOTAL			1,030.54			401.28			Net Pay	629.26
Preis, Cathy	Regular			300.00		Social Security	62.85			Direct Deposit # 43	
44	Health Stipend			713.59		Medicare	14.69			**Check Amt**	0.00
						Fed Income Tax	65.17			Chkg 011	852.46
						CA Income Tax	7.27				
						CA Disability	11.15				
	EMPLOYEE TOTAL			1,013.59			161.13			Net Pay	852.46
****** 50 ADMIN**											
Mehler, Deleane	Regular	44.2700	68.0000	3,010.36		Social Security	219.58	457	100.00	Direct Deposit # 44	
51	Holiday	44.2700	8.0000	354.16		Medicare	51.35	Loan 2	243.52	**Check Amt**	0.00
	Sick	44.2700	4.0000	177.08		Fed Income Tax	516.11	Loan Payment	103.78	Chkg 963	2,078.94
						CA Income Tax	189.36				
						CA Disability	38.96				
	EMPLOYEE TOTAL		80.0000	3,541.60			1,015.36		447.30	Net Pay	2,078.94
Palmer, Steven V	Regular			7,456.04		Social Security	462.27	457	201.93	Direct Deposit # 45	
65	Holiday		8.0000			Medicare	108.11			**Check Amt**	0.00
						Fed Income Tax	1,227.14			Chkg 779	4,007.19
						CA Income Tax	579.38			Savg 217	788.00
						CA Disability	82.02				
	EMPLOYEE TOTAL		8.0000	7,456.04			2,458.92		201.93	Net Pay	4,795.19
COMPANY TOTALS											
12 Person(s)	Regular		344.7500	31,806.63		Social Security	2,667.63	457	2,001.93	**Check Amt**	0.00
13 Transaction(s)	Double Time		2.0000	222.80		Medicare	623.89	Credit Un 2	150.00	Dir Dep	27,332.56

PAYROLL JOURNAL

0085 0085-T591 Donner Summit Public Utility

EMPLOYEE NAME / ID	HOURS, EARNINGS, REIMBURSEMENTS & OTHER PAYMENTS				WITHHOLDINGS		DEDUCTIONS		NET PAY ALLOCATIONS	
	DESCRIPTION	RATE	HOURS	EARNINGS	REIMB & OTHER PAYMENTS					
	Overtime		26.0000	2,120.82		Fed Income Tax	5,050.10	Garnishment	1,292.31	
	Health Stipend			4,090.59		CA Income Tax	2,389.40	Life Ins EE Post	72.41	
	Holiday		64.0000	2,338.46		CA Disability	473.30	Loan 2	414.86	
	Life Ins Reimb Txble			300.00				Loan Payment	558.02	
	Sick		27.2500	1,427.11						
	Stand By			720.00						
	Sick Accr-Memo				3.70					
	Vacation -Memo				10.77					
	COMPANY TOTAL		464.0000	43,026.41			11,204.32		4,489.53	Net Pay 27,332.56
						Employer Liabilities				
						Social Security	2,667.65			
						Medicare	623.87			
						Fed Unemploy	37.79			
						CA Unemploy	390.58			
					TOTAL	EMPLOYER LIABILITY	3,719.89			
						TOTAL TAX LIABILITY	14,924.21			

(IC) = Independent Contractor

0085 0085-T591 Donner Summit Public Utility

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 02/02/24: $46,673.89

IMPORTANT COVID-19 INFORMATION: If you filed IRS Form 7200, please notify your Paychex representative to avoid owing a balance at the end of the quarter and ensure your Form 941 is accurate.

TRANSACTION SUMMARY

SUMMARY BY TRANSACTION TYPE -	TOTAL ELECTRONIC FUNDS TRANSFER (EFT)	46,673.89
	CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR EFT	**46,673.89**
	TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES	3,197.22
	CASH REQUIRED FOR CHECK DATE 02/02/24	49,871.11

TRANSACTION DETAIL

ELECTRONIC FUNDS TRANSFER - *Your financial institution will initiate transfer to Paychex **at or after 12:01 A.M.** on transaction date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		BANK DRAFT AMOUNTS & OTHER TOTALS
02/01/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Direct Deposit	Net Pay Allocations	27,332.56	**27,332.56**
02/01/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Readychex®	Check Amounts	4,417.12	**4,417.12**
02/01/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Taxpay®	Employee Withholdings		
				Social Security	2,667.63	
				Medicare	623.89	
				Fed Income Tax	5,050.10	
				CA Income Tax	2,389.40	
				CA Disability	473.30	
				Total Withholdings	**11,204.32**	
				Employer Liabilities		
				Social Security	2,667.65	
				Medicare	623.87	
				Fed Unemploy	37.79	
				CA Unemploy	390.58	
				Total Liabilities	**3,719.89**	**14,924.21**
					EFT FOR 02/01/24	**46,673.89**
					TOTAL EFT	**46,673.89**

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES - *Paychex does not remit these funds. You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
02/02/24	Refer to your records for account Information		Payroll	Employee Deductions		
				457	2,001.93	
				Credit Un 2	150.00	
				Life Ins EE Post Tax	72.41	
				Loan 2	414.86	

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EMPLOYEE NAME / ID	DESCRIPTION	RATE	HOURS	EARNINGS	REIMB & OTHER PAYMENTS	WITHHOLDINGS		DEDUCTIONS		NET PAY ALLOCATIONS	
****** 30 WATER SEWER**											
King, James R	Regular			6,458.66		Social Security	400.44	457	150.00	Direct Deposit # 46	
49	Sick Accr-Memo				M1.85	Medicare	93.65	Garnishment	1,292.31	**Check Amt**	0.00
	Vacation -Memo				M4.62	Fed Income Tax	794.17	Loan Payment	454.24	Chkg 730	2,781.06
						CA Income Tax	421.74				
						CA Disability	71.05				
	EMPLOYEE TOTAL			6,458.66			1,781.05		1,896.55	Net Pay	2,781.06
Patrick, Sean M	Regular	51.0800	65.2500	3,332.97		Social Security	311.27	457	450.00	Direct Deposit # 47	
59	Overtime	76.6200	4.0000	306.48		Medicare	72.80			**Check Amt**	0.00
	Double Time	102.1600	3.5000	357.56		Fed Income Tax	487.04			Chkg 717	3,339.27
	Sick	51.0800	11.2500	574.65		CA Income Tax	304.84				
	Stand By			270.00		CA Disability	55.22				
	Vacation	51.0800	3.5000	178.78							
	EMPLOYEE TOTAL		87.5000	5,020.44			1,231.17		450.00	Net Pay	3,339.27
Schott, Paul A	Regular	54.0500	80.0000	4,324.00		Social Security	316.67	457	850.00	Direct Deposit # 48	
14	Overtime	81.0750	6.0000	486.45		Medicare	74.06	Credit Un 2	150.00	**Check Amt**	0.00
	Double Time	108.1000	0.2500	27.03		Fed Income Tax	698.81			Chkg 019	2,688.93
	Stand By			270.00		CA Income Tax	272.83				
	Sick Accr-Memo				M1.85	CA Disability	56.18				
	Vacation -Memo				M6.15						
	EMPLOYEE TOTAL		86.2500	5,107.48			1,418.55		1,000.00	Net Pay	2,688.93
Shelton, Joshua M...	Regular	37.6000	80.0000	3,008.00		Social Security	196.11	457	50.00	Direct Deposit # 49	
64	Overtime	56.4000	2.7500	155.10		Medicare	45.86			**Check Amt**	0.00
						Fed Income Tax	261.34			Chkg 722	2,419.24
						CA Income Tax	155.76				
						CA Disability	34.79				
	EMPLOYEE TOTAL		82.7500	3,163.10			693.86		50.00	Net Pay	2,419.24
Vosburgh, Justin E	Regular	55.7000	74.0000	4,121.80		Social Security	287.44	457	200.00	Direct Deposit # 50	
57	Stand By			180.00		Medicare	67.22	Loan 2	171.34	**Check Amt**	0.00
	Vacation	55.7000	6.0000	334.20		Fed Income Tax	662.27			Chkg 400	2,904.64
						CA Income Tax	292.09				
						CA Disability	51.00				
	CHECK 1 TOTAL		80.0000	4,636.00			1,360.02		371.34	Net Pay	2,904.64
	Overtime	83.5500	14.2500	1,190.59		Social Security	91.08			Direct Deposit # 51	
	Double Time	111.4000	2.5000	278.50		Medicare	21.30			**Check Amt**	0.00
						Fed Income Tax	99.98			Chkg 400	1,209.30
						CA Income Tax	31.27				
						CA Disability	16.16				
	CHECK 2 TOTAL		16.7500	1,469.09			259.79			Net Pay	1,209.30
	EMPLOYEE TOTAL		96.7500	6,105.09			1,619.81		371.34	Net Pay	4,113.94
****** 50 ADMIN**											
Mehler, Deleane	Regular	44.2700	80.0000	3,541.60		Social Security	219.58	457	100.00	Direct Deposit # 52	
51						Medicare	51.36	Loan 2	243.52	**Check Amt**	0.00
						Fed Income Tax	516.11	Loan Payment	103.78	Chkg 963	2,078.93
						CA Income Tax	189.36				

PAYROLL JOURNAL

0085 0085-T591 Donner Summit Public Utility

EMPLOYEE NAME / ID	DESCRIPTION	RATE	HOURS	EARNINGS	REIMB & OTHER PAYMENTS	WITHHOLDINGS		DEDUCTIONS		NET PAY ALLOCATIONS	
****** 50 ADMIN (cont.)**											
Mehler, Deleane (cont.)											
51						CA Disability	38.96				
	EMPLOYEE TOTAL		80.0000	3,541.60			1,015.37		447.30	Net Pay	2,078.93
Palmer, Steven V	Regular			7,456.04		Social Security	462.28	457	201.93	Direct Deposit # 53	
65						Medicare	108.11			**Check Amt**	0.00
						Fed Income Tax	1,227.14			Chkg 779	4,007.18
						CA Income Tax	579.38			Savg 217	788.00
						CA Disability	82.02				
	EMPLOYEE TOTAL			7,456.04			2,458.93		201.93	Net Pay	4,795.18
COMPANY TOTALS											
7 Person(s)	Regular		379.2500	32,243.07		Social Security	2,284.87	457	2,001.93	**Check Amt**	0.00
8 Transaction(s)	Double Time		6.2500	663.09		Medicare	534.36	Credit Un 2	150.00	Dir Dep	22,216.55
	Overtime		27.0000	2,138.62		Fed Income Tax	4,746.86	Garnishment	1,292.31		
	Sick		11.2500	574.65		CA Income Tax	2,247.27	Loan 2	414.86		
	Stand By			720.00		CA Disability	405.38	Loan Payment	558.02		
	Vacation		9.5000	512.98							
	Sick Accr-Memo				3.70						
	Vacation -Memo				10.77						
	COMPANY TOTAL		433.2500	36,852.41			10,218.74		4,417.12	Net Pay	22,216.55
						Employer Liabilities					
						Social Security	2,284.84				
						Medicare	534.35				
					TOTAL	EMPLOYER LIABILITY	2,819.19				
						TOTAL TAX LIABILITY	13,037.93				

(IC) = Independent Contractor

0085 0085-T591 Donner Summit Public Utility

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 02/16/24: $39,671.60

IMPORTANT COVID-19 INFORMATION: If you filed IRS Form 7200, please notify your Paychex representative to avoid owing a balance at the end of the quarter and ensure your Form 941 is accurate.

TRANSACTION SUMMARY

SUMMARY BY TRANSACTION TYPE -

TOTAL ELECTRONIC FUNDS TRANSFER (EFT)	39,671.60
CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR EFT	**39,671.60**
TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES	3,124.81
CASH REQUIRED FOR CHECK DATE 02/16/24	42,796.41

TRANSACTION DETAIL

ELECTRONIC FUNDS TRANSFER - *Your financial institution will initiate transfer to Paychex **at or after 12:01 A.M.** on transaction date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		BANK DRAFT AMOUNTS & OTHER TOTALS
02/15/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Direct Deposit	Net Pay Allocations	22,216.55	**22,216.55**
02/15/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Readychex®	Check Amounts	4,417.12	**4,417.12**
02/15/24	FIVE STAR BANK	xxxxxxxxxxxxx707	Taxpay®	Employee Withholdings		
				Social Security	2,284.87	
				Medicare	534.36	
				Fed Income Tax	4,746.86	
				CA Income Tax	2,247.27	
				CA Disability	405.38	
				Total Withholdings	**10,218.74**	
				Employer Liabilities		
				Social Security	2,284.84	
				Medicare	534.35	
				Total Liabilities	**2,819.19**	**13,037.93**
					EFT FOR 02/15/24	**39,671.60**
					TOTAL EFT	**39,671.60**

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES - *Paychex does not remit these funds. You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
02/16/24	Refer to your records for account Information		Payroll	Employee Deductions		
				457	2,001.93	
				Credit Un 2	150.00	
				Loan 2	414.86	

Agenda Item: 5A.3

DONNER SUMMIT PUBLIC UTILITY DISTRICT
SCHEDULE OF CASH AND DEBT RESTRICTED RESERVES
JANUARY 31, 2024

Bank Account	Reserve	Book Balance	Reserves Restricted
Wells Fargo - Checking		$ -	
Wells Fargo - Deposit		432,256.71	
Wells Fargo - Payroll		-	
Five Star Bank #5715 General Disbursement		(79,331.98)	
Five Star Bank #5693 Main Checking		820,994.21	
LAIF		3,542.20	
	SWRCB Loan Construction		719,191.03
	WTP Loan Construction		10,359.94
	Big Bend Water Loan Reserve 1		5,662.40
	Big Bend Water Loan Reserve 2		2,325.60
	Big Bend Assessment		16,881.68
	Big Bend Loan Fund - Loan 1		14,156.00
	Big Bend Loan Fund - Loan 2		5,814.00
	Sugar Bowl Expansion		189,732.52
Totals		1,177,461.14	964,123.17
Unrestricted Cash Available			$ 213,337.97

Agenda Item: 5A.4

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FINANCIAL STATEMENTS
AND
INDEPENDENT ACCOUNTANTS' COMPILATION REPORT

JANUARY 31, 2024

DONNER SUMMIT PUBLIC UTILITY DISTRICT
TABLE OF CONTENTS
JANUARY 31, 2024

BARNARD VOGLER & CO.
Certified Public Accountants

100 West Liberty St.
Suite 1100
Reno, NV 89501

775.786.6141
775.323.6211
bvcocpas.com

INDEPENDENT ACCOUNTANTS' COMPILATION REPORT

To the Board of Directors
Donner Summit Public Utility District

Management is responsible for the accompanying financial statements of the business-type activities of Donner Summit Public Utility District (the District) which comprise the statements of activities and changes in net position – budgetary basis for the seven months ended January 31, 2024 in accordance with the budgetary basis of accounting, and for determining that the budgetary basis of accounting is an acceptable financial reporting framework. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or the completeness of the information provided by management. We do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

The accompanying supplementary information contained on page 8 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management. The supplementary information was subject to our compilation engagement. We have not audited or reviewed the supplementary information and do not express an opinion, a conclusion, nor provide any assurance on such information.

Management has elected to omit substantially all of the disclosures and the statement of cash flows required by accounting principles generally accepted in the United States of America. If the omitted disclosures and statement of cash flows were included in the financial statements, they might influence the user's conclusions about the District's financial position, results of operations, and cash flows. Accordingly, the financial statements are not designed for those who are not informed about such matters.

The financial statements are prepared on the budgetary basis of accounting, which includes expensing capital outlay purchases and principal payments on long-term debt. The budgetary basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America.

Barnard, Vogler & Co.

Reno, Nevada
February 28, 2024

DONNER SUMMIT PUBLIC UTILITY DISTRICT
STATEMENT OF ACTIVITIES AND CHANGES IN NET POSITION - BUDGETARY BASIS
COMBINED BUSINESS-TYPE ACTIVITIES
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

	Water	Sewer	Treatment	Admin	Total
Program Revenue					
Water fees	$ 528,095.68	$ -	$ -	$ -	$ 528,095.68
Sewer fees	-	430,897.75	1,292,693.25	-	1,723,591.00
Connection fees	-	-	-	-	-
Recycled water sales	-	-	-	-	-
Non-CFD revenue for WWTP loan	-	-	3,088.83	-	3,088.83
Sierra Lakes service	-	-	306,076.75	-	306,076.75
Big Bend service fees	23,310.00	-	-	-	23,310.00
Big Bend assessment	15,578.64	-	-	-	15,578.64
Total Program Revenue	566,984.32	430,897.75	1,601,858.83	-	2,599,740.90
Expenses					
Salaries-operations	79,421.76	66,786.46	214,799.57	175,353.50	536,361.29
Overtime	9,347.01	7,859.98	25,279.33	-	42,486.32
Employee benefits and taxes	27,248.27	20,806.56	74,159.08	54,406.39	176,620.30
Board expense	-	-	-	42,898.15	42,898.15
Professional fees	51,039.10	290.54	14,990.53	80,818.31	147,138.48
Dues and subscriptions	90.00	-	1,120.58	8,671.00	9,881.58
Fees, permits, certifications, leases	6,190.93	-	29,245.05	12,654.69	48,090.67
Training, education, travel	154.58	-	508.32	1,099.86	1,762.76
Insurance	30,800.60	25,606.95	81,367.88	7,051.46	144,826.89
Office supplies and miscellaneous	236.00	262.88	787.49	4,576.12	5,862.49
Utilities, communications, telemetry	31,101.51	15,507.53	216,624.37	20,029.84	283,263.25
Chemicals and lab supplies	10,756.90	-	140,185.53	-	150,942.43
Laboratory testing	(140.00)	-	23,590.00	-	23,450.00
Equipment maintenance and repair	14,843.01	5,223.15	19,606.52	-	39,672.68
Small equipment and rental	10,697.24	10,697.26	476.39	281.87	22,152.76
Operating supplies	464.45	3,226.58	605.33	2,016.56	6,312.92
Sludge removal	-	-	19,495.17	-	19,495.17
Vehicle maintainance, repair, fuel	2,354.53	7,063.62	5,184.05	-	14,602.20
Infiltration and inflow program	-	33,014.25	-	-	33,014.25
Facility maintenance and repair	107,689.96	4,808.59	42,387.47	1,390.00	156,276.02
Amortization of land lease	-	-	12,654.25	-	12,654.25
Debt service	9,093.64	-	719,191.03	-	728,284.67
Capital equipment	24,533.83	17,326.58	58,186.38	-	100,046.79
Sugar Bowl expansion		122,581.22			122,581.22
Capital projects	-	-	-	-	-
Total Expenses	415,923.32	341,062.15	1,700,444.32	411,247.75	2,868,677.54
Excess (Deficiency) of Program Revenues Over Expenses	151,061.00	89,835.60	(98,585.49)	(411,247.75)	(268,936.64)
General Revenues					
Interest revenue	-	-	-	1,603.92	1,603.92
CFD revenue for WWTP loan	-	-	167,949.45	-	167,949.45
Property tax	20,963.57	13,750.22	60,575.30	-	95,289.09
Other income	34,701.75	3,443.76	3,661.00	2,934.65	44,741.16
Sugar Bowl expansion	-	176,344.00	-	-	176,344.00
Grants	675.00	-	-	-	675.00
Total General Revenues	56,340.32	193,537.98	232,185.75	4,538.57	486,602.62
Increase (Decrease) in Net Position	$ 207,401.32	$ 283,373.58	$ 133,600.26	$ (406,709.18)	$ 217,665.98
Net Position, Beginning of Year					12,798,744.00
Net Position, End of Period					$ 13,016,409.98

See independent accountants' compilation report

DONNER SUMMIT PUBLIC UTILITY DISTRICT
STATEMENT OF ACTIVITIES AND CHANGES IN NET POSITION - BUDGETARY BASIS
BUDGET AND ACTUAL
BUSINESS-TYPE ACTIVITY - WATER
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

	Actual Year to Date 1/31/24	Budget Total Fiscal Year 2024	Budget Percent Complete 1/31/24	Remaining Budget 1/31/24
Program Revenue				
Water fees	$ 528,095.68	$ 677,677.00	77.93%	$ (149,581.32)
Connection fees	-	-	0.00%	-
Big Bend service fees	23,310.00	31,546.00	73.89%	(8,236.00)
Big Bend assessment	15,578.64	20,772.00	75.00%	(5,193.36)
Total Program Revenue	566,984.32	729,995.00	77.67%	(163,010.68)
Expenses				
Salaries-operations	79,421.76	129,183.00	61.48%	49,761.24
Overtime	9,347.01	13,295.00	70.30%	3,947.99
Employee benefits and taxes	27,248.27	52,477.00	51.92%	25,228.73
Professional fees	51,039.10	115,452.00	44.21%	64,412.90
Dues and subscriptions	90.00	680.00	13.24%	590.00
Fees, permits, certifications, leases	6,190.93	17,530.00	35.32%	11,339.07
Training, education, travel	154.58	1,000.00	15.46%	845.42
Insurance	30,800.60	47,700.00	64.57%	16,899.40
Office supplies and miscellaneous	236.00	550.00	42.91%	314.00
Utilities, communications, telemetry	31,101.51	50,309.00	61.82%	19,207.49
Chemicals and lab supplies	10,756.90	30,000.00	35.86%	19,243.10
Laboratory testing	(140.00)	5,000.00	-2.80%	5,140.00
Equipment maintenance and repair	14,843.01	39,645.00	37.44%	24,801.99
Small equipment and rental	10,697.24	3,150.00	339.59%	(7,547.24)
Operating supplies	464.45	390.00	119.09%	(74.45)
Vehicle maintainance, repair, fuel	2,354.53	5,610.00	41.97%	3,255.47
Facility maintenance and repair	107,689.96	97,313.00	110.66%	(10,376.96)
Angela WTP loan principal and interest	9,093.64	18,188.00	50.00%	9,094.36
Big Bend debt service	-	19,970.00	0.00%	19,970.00
Capital equipment	24,533.83	25,676.00	95.55%	1,142.17
Capital projects	-	37,300.00	0.00%	37,300.00
Total Expenses	415,923.32	710,418.00	58.55%	294,494.68
Excess of Program Revenues Over Expenses	151,061.00	19,577.00	771.62%	131,484.00
General Revenues				
Property tax	20,963.57	30,213.00	69.39%	9,249.43
Other income	34,701.75	55,250.00	62.81%	20,548.25
Grants	675.00	20,400.00	100.00%	19,725.00
Total General Revenues	56,340.32	105,863.00	232.20%	49,522.68
Increase in Net Position	$ 207,401.32	$ 125,440.00	165.34%	$ 181,006.68

See independent accountants' compilation report

DONNER SUMMIT PUBLIC UTILITY DISTRICT
STATEMENT OF ACTIVITIES AND CHANGES IN NET POSITION - BUDGETARY BASIS
BUDGET AND ACTUAL
BUSINESS-TYPE ACTIVITY - SEWER
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

	Actual Year to Date 1/31/24	Budget Total Fiscal Year 2024	Budget Percent Complete 1/31/24	Remaining Budget 1/31/24
Program Revenue				
Sewer fees	$ 430,897.75	$ 483,683.00	89.09%	$ (52,785.25)
Connection fees	-	-	0.00%	-
Total Program Revenue	430,897.75	483,683.00	89.09%	(52,785.25)
Expenses				
Salaries-operations	66,786.46	108,631.00	61.48%	41,844.54
Overtime	7,859.98	11,180.00	70.30%	3,320.02
Employee benefits and taxes	20,806.56	44,649.00	46.60%	23,842.44
Professional fees	290.54	-	0.00%	(290.54)
Training, education and travel	-	300.00	0.00%	300.00
Insurance	25,606.95	40,111.00	63.84%	14,504.05
Office supplies and miscellaneous	262.88	550.00	47.80%	287.12
Utilities, communications, telemetry	15,507.53	30,512.00	50.82%	15,004.47
Chemicals and lab supplies	-	500.00	0.00%	500.00
Small equipment and rental	10,697.26	-	0.00%	(10,697.26)
Operating supplies	3,226.58	1,200.00	268.88%	(2,026.58)
Infiltration and inflow program	33,014.25	30,000.00	110.05%	(3,014.25)
Equipment maintenance and repair	5,223.15	24,350.00	21.45%	19,126.85
Vehicle maintainance, repair, fuel	7,063.62	5,410.00	130.57%	(1,653.62)
Facility maintenance and repair	4,808.59	7,640.00	62.94%	2,831.41
Capital equipment	17,326.58	18,725.00	92.53%	1,398.42
Sugar Bowl expansion	122,581.22	-		
Capital projects	-	8,200.00	0.00%	8,200.00
Total Expenses	341,062.15	332,418.00	65.72%	113,937.07
Excess of Program				
Revenues Over Expenses	89,835.60	151,265.00	140.43%	(61,429.40)
General Revenues				
Property tax	13,750.22	20,353.00	67.56%	(6,602.78)
Other income	3,443.76	3,000.00	114.79%	443.76
Sugar Bowl expansion	176,344.00	-		
Total General Revenues	193,537.98	23,353.00	73.63%	(6,159.02)
Increase in Net Position	$ 283,373.58	$ 174,618.00	-30.79%	$ 108,755.58

See independent accountants' compilation report

DONNER SUMMIT PUBLIC UTILITY DISTRICT
STATEMENT OF ACTIVITIES AND CHANGES IN NET POSITION - BUDGETARY BASIS
BUDGET AND ACTUAL
BUSINESS-TYPE ACTIVITY - WASTEWATER TREATMENT
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

	Actual Year to Date	Budget Total	Budget Percent Complete	Remaining Budget
	1/31/24	Fiscal Year 2024	1/31/24	1/31/24
Program Revenue				
Sewer fees	$ 1,292,693.25	$ 1,531,662.00	84.40%	$ (238,968.75)
Recycled water sales	-	-	0.00%	-
Non-CFD revenue for WWTP loan	3,088.83	281,044.00	1.10%	(277,955.17)
Sierra Lakes service	306,076.75	547,280.00	55.93%	(241,203.25)
Total Program Revenue	1,601,858.83	2,359,986.00	67.88%	(758,127.17)
Expenses				
Salaries-operations	214,799.57	349,380.00	61.48%	134,580.43
Overtime	25,279.33	35,957.00	70.30%	10,677.67
Employee benefits and taxes	74,159.08	143,601.00	51.64%	69,441.92
Professional fees	14,990.53	52,900.00	28.34%	37,909.47
Dues and subscriptions	1,120.58	2,200.00	50.94%	1,079.42
Fees, permits, certifications, leases	29,245.05	28,000.00	104.45%	(1,245.05)
Training, education, travel	508.32	3,120.00	16.29%	2,611.68
Insurance	81,367.88	129,006.00	63.07%	47,638.12
Office supplies and miscellaneous	787.49	2,248.00	35.03%	1,460.51
Utilities, communications, telemetry	216,624.37	458,000.00	47.30%	241,375.63
Chemicals and lab supplies	140,185.53	180,380.00	77.72%	40,194.47
Laboratory testing	23,590.00	26,043.00	90.58%	2,453.00
Small equipment and rental	476.39	1,240.00	38.42%	763.61
Operating supplies	605.33	375.00	161.42%	(230.33)
Equipment maintenance and repair	19,606.52	19,420.00	100.96%	(186.52)
Vehicle maintainance, repair, fuel	5,184.05	17,520.00	29.59%	12,335.95
Sludge removal	19,495.17	22,340.00	87.27%	2,844.83
Facility maintenance and repair	42,387.47	61,520.00	68.90%	19,132.53
Amortization of land lease	12,654.25	21,693.00	58.33%	9,038.75
WWTP loan	719,191.03	719,191.00	100.00%	(0.03)
Capital equipment	58,186.38	68,886.00	84.47%	10,699.62
Total Expenses	1,700,444.32	2,343,020.00	72.57%	642,575.68
Excess (Deficiency) of Program Revenues Over Expenses	(98,585.49)	16,966.00	-581.08%	(115,551.49)
General Revenues				
CFD revenue for WWTP loan	167,949.45	290,593.00	57.80%	(122,643.55)
Property tax	60,575.30	86,800.00	69.79%	(26,224.70)
Other income	3,661.00	-	0.00%	3,661.00
Total General Revenues	232,185.75	377,393.00	61.52%	(145,207.25)
Increase in Net Position	$ 133,600.26	$ 394,359.00	33.88%	$ 260,758.74

See independent accountants' compilation report

DONNER SUMMIT PUBLIC UTILITY DISTRICT
STATEMENT OF ACTIVITIES AND CHANGES IN NET POSITION - BUDGETARY BASIS
BUDGET AND ACTUAL
BUSINESS-TYPE ACTIVITY - ADMIN
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

	Actual Year to Date 1/31/24	Budget Total Fiscal Year 2024	Budget Percent Complete 1/31/24	Remaining Budget 1/31/24
Program Revenue				
Service Fees	$ -	$ -	-	$ -
Total Program Revenue	-	-	-	-
Expenses				
Salaries-operations	175,353.50	287,755.00	60.94%	112,401.50
Overtime	-	3,522.00	0.00%	3,522.00
Employee benefits and taxes	54,406.39	130,669.00	41.64%	76,262.61
Board expense	42,898.15	72,245.00	59.38%	29,346.85
Professional fees	80,818.31	111,600.00	72.42%	30,781.69
Dues and subscriptions	8,671.00	11,400.00	76.06%	2,729.00
Fees, permits, certifications, leases	12,654.69	13,240.00	95.58%	585.31
Training, education, travel	1,099.86	3,000.00	36.66%	1,900.14
Insurance	7,051.46	11,411.00	61.80%	4,359.54
Office supplies and miscellaneous	4,576.12	9,000.00	50.85%	4,423.88
Utilities, communications, telemetry	20,029.84	34,871.00	57.44%	14,841.16
Small equipment and rental	281.87	-	0.00%	(281.87)
Operating supplies	2,016.56	2,080.00	96.95%	63.44
Facility maintenance and repair	1,390.00	10,280.00	13.52%	8,890.00
Capital equipment	-	7,500.00	0.00%	7,500.00
Total Expenses	411,247.75	708,573.00	58.04%	297,325.25
Deficiency of Program Revenues Over Expenses	(411,247.75)	(708,573.00)	58.04%	297,325.25
General Revenues				
Interest revenue	1,603.92	2,000.00	80.20%	(396.08)
Other income	2,934.65	9,000.00	32.61%	(6,065.35)
Grants	-	-	0.00%	-
Total General Revenues	4,538.57	11,000.00	41.26%	(6,461.43)
Decrease in Net Position	$ (406,709.18)	$ (697,573.00)	58.30%	$ 290,863.82

See independent accountants' compilation report

SUPPLEMENTARY INFORMATION

DONNER SUMMIT PUBLIC UTILITY DISTRICT
SCHEDULE OF BIG BEND TRANSACTIONS
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2024

Revenue	$	38,888.64
Expenses		
Fees and permits		1,339.00
Telephone		829.16
Interest		-
Loan principal		-
Electricity		(1,242.39)
Repairs and maintenance		634.07
Total expenses		1,559.84
Excess of revenue over expenses	$	37,328.80

See independent accountants' compilation report

Agenda Item: 5B

Donner Summit Public Utility District
Board of Directors Regular Meeting
Minutes
Tuesday, February 20, 2024 - 6:00 P.M.
DSPUD Office, 53823 Sherritt Lane, Soda Springs California

STAFF PRESENT: Steven Palmer, General Manager; Jim King, Plant Manager; Deleane Mehler, Office Assistant
OTHERS PRESENT: Geoffrey O. Evers, General Counsel, by Zoom

1. **Call to Order**
   The Regular Meeting of February 20, 2024 of the Donner Summit Public Utility District Board of Directors was called to order at 6:01 p.m. by President Cathy Preis.

2. **Roll Call**

Cathy Preis, President	- Present
Joni Kaufman, Vice President	- Present
Dawn Parkhurst, Secretary	- Present
Philip Gamick, Director	- Present
Craig Combs, Director	- Present

3. **Clear the Agenda**- None

4. **Public Participation –** *This is time set aside for the public to address the Board on any matter not on the agenda. Comments related to any item already on the agenda should be addressed at the time that that item is considered. Each speaker will be limited to five minutes, but speaker time may be reduced at the discretion of the Board President if there are a large number of speakers on any given subject.* None.

5. **Consent Calendar**
   All items listed under the Consent Calendar are considered to be routine and will be approved by one motion. There will be no separate discussion of these items unless a member of the Board requests an item to be removed from the Consent Calendar for a separate action. Any items removed will be considered after the motion to approve the Consent Calendar.

   A. Approve Finance Report for February 2024
   1. **Cash Disbursements–General**, Month of January
   2. **Cash Disbursements–Payroll,** Month of January
   3. **Schedule of Cash and Reserves,** December
   4. **Accountants Financial Statements,** December

   B. Approve Regular Meeting Minutes for January 16, 2024

   C. Approve Safety Meeting Minutes for January 2024

   Motion: Accept the Consent Calendar
   By: Joni Kaufman
   Second: Craig Combs
   Vote: 5 Ayes, 0 Noes, 0 Absent, 0 Abstain, 0 Vacancy
   Motion Carries

6. Department Reports

A. Administration - Steven Palmer, General Manager. Reported.

B. Operations and Maintenance Summary, January. Reported.

7. Action

A. Accept Fiscal Year End 2023 Audited Financial Statements

Motion: Accept the Fiscal Year End 2023 Audited Financial Statement
By: Phil Gamick
Second: Dawn Parkhurst
Vote: 5 Ayes, 0 Noes, 0 Absent, 0 Abstain, 0 Vacancy
Motion Carries

B. Receive Financial Health Checkup Report for Fiscal Year 2023

C. Adopt a Resolution of Intention to Form Community Facilities District Number 2024-1, and a Resolution of Intention to Incur Bonded Indebtedness for Public Facilities in Community Facilities District Number 2024-1 for the Sugar Bowl West and East Villages Sewer Project

Motion: Adopt Resolution 2024-02 of the Donner Summit Public Utility District Approving Intention to Form Community Facilities District Number 2024-1 for the Sugar Bowl West and East Villages Sewer Project.
By: Craig Combs
Second: Phil Gamick
Roll Call Vote:
Cathy Preis - Aye
Phil Gamick - Aye
Craig Combs - Aye
Joni Kaufman - Aye
Dawn Parkhurst - Aye

Motion: Adopt Resolution 2024-03 of the Donner Summit Public Utility District Approving Intention to Incur Bonded Indebtedness for Public Facilities in Community Facilities District Number 2024-1 for the Sugar Bowl West and East Villages Sewer Project
By: Phil Gamick
Second: Joni Kaufman
Roll Call Vote:
Cathy Preis - Aye
Phil Gamick - Aye
Craig Combs - Aye
Joni Kaufman - Aye
Dawn Parkhurst - Aye

D. Authorize the General Manager to Request Technical Assistance from the Rural Community Assistance Corporation to Submit a Grant Application for a Detailed Evaluation of a Domestic Water System Intertie with Sierra Lakes County Water District, PlaVada Community Association, and Kingvale Water Users

Motion: Authorize the General Manger to Request Technical Assistance from the Rural Community Corporation to Submit a Grant Application for a Detailed Evaluation of a Domestic Water System Intertie with Sierra Lakes County Water District, PlaVada Community Association and Kingvale Water Users.
By: Joni Kaufman
Second: Dawn Parkhurst
Vote: 5 Ayes, 0 Noes, 0 Absent, 0 Abstain, 0 Vacancy
Motion Carries

8. **Director Reports:** *In accordance with Government Code Section 54954.2(a), Directors may make brief announcements or brief reports on their own activities (concerning the District). They may ask questions for clarification make a referral to staff or take action to have staff place a matter of business on a future agenda.*

9. **Adjournment**

Motion: Adjourn Meeting at 7:00 p.m.
By: Phil Gamick
Second: Joni Kaufman
Vote: 5 Ayes, 0 Noes, 0 Absent, 0 Abstain, 0 Vacancy
Motion Carries

Schedule of Upcoming Meetings

Regular Meeting – April 16, 2024
Regular Meeting – May 21, 2024
Regular Meeting –June 18, 2024

Respectfully Submitted,

Deleane Mehler

Deleane Mehler
Administrative Assistant

Agenda Item: 5C

Safety / Plant Training
Donner Summit PUD WWTP

- **Safety Topics** : February 2024
  - Protecting Your Feet

- **Training Notes** :
  - DVD

Attendance :

1. Justin Vosburgh
2. Sean Patrick
3. Josh Shelton
4. Jim King
5. Deleane Mehler
6. Steve Palmer
7. Paul Schott

Agenda Item: 5D

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: Approve Engagement Letter with Hillberg & Company for an Audit of Financial Statements for the Fiscal Year Ending June 30, 2024

RECOMMENDATION
Approve engagement letter with Hillberg & Company for an Audit of Financial Statements for the Fiscal Year Ending June 30, 2024 and authorize General Manager to sign.

BACKGROUND
An annual audit of Donner Summit Public Utility District (District) is required by state law. Hillberg & Company is a certified public accountant and well qualified to perform this work. Hillberg & Company recently completed the audit for Fiscal Year Ending June 30, 2023. From 2006 through 2023 the annual audit of financial statements were prepared by Gibson & Company. This last calendar year, Gibson & Company began closing and transferred the District's audit work to Hillberg & Company. The same accountant that has been preparing annual audits for the District for several years, Joe Julio, is now working for Hillberg & Company.

DISCUSSION
Hillberg & Company has provided the attached Engagement Letter for the District to approve and sign (Attachment 1). The letter details the scope of services that will be provided. The scope complies with all audit requirements and details how their work will comply with auditing standards generally accepted in the United States of America and the standards for financial audits contained in the Government Auditing Standards, issued by the Comptroller General of the United States. The scope generally includes the following tasks:

- Audit of financial statements to obtain reasonable assurance that they are free from material misstatements
- Evaluate appropriateness of accounting policies and financial statements
- Inquiries of management regarding methods of preparing the information and basic financial statements

ANALYSIS
In order to complete the audit, the Board needs to approve the engagement letter and authorize the General Manager to sign.

FISCAL IMPACT
The fee for these services is not to exceed $32,500, which is a slight increase from the fee of $31,000 from last fiscal year.

CEQA ASSESSMENT
This is not a CEQA Project

ATTACHMENTS
1. Engagement Letter

Hillberg & Company
CERTIFIED PUBLIC ACCOUNTANTS

415 Mitchell Avenue, Turlock, CA 95380
Phone: (209) 667-2406
Fax: (209) 667-4615

4600 Northgate Blvd, Suite 115
Sacramento, Ca 95834
Phone: (916) 484-1252

March 1, 2024

Board of Directors and General Manager
Donner Summit Public Utility District
P.O. Box 610
Soda Springs, CA 95728

We are pleased to confirm our understanding of the services we are to provide Donner Summit Public Utility District for the year ended June 30, 2024.

Audit Scope and Objectives

We will audit the financial statements of the business-type activities, and the disclosures, which collectively comprise the basic financial statements of Donner Summit Public Utility District as of and for the year ended June 30, 2024. Accounting standards generally accepted in the United States of America (GAAP) provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement Donner Summit Public Utility District's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to Donner Summit Public Utility District's RSI in accordance with auditing standards generally accepted in the United States of America (GAAS). These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient appropriate evidence to express an opinion or provide any assurance. The following RSI is required by GAAP and will be subjected to certain limited procedures, but will not be audited:

1. Management's Discussion and Analysis.

We will also prepare your California Special Districts Financial Transaction Report for the year ended June 30, 2024.

The objectives of our audit are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; issue an auditor's report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with GAAP; and report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and Government Auditing Standards will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement of a reasonable user made based on the financial statements.

We have advised you of the limitations of our audit regarding the detection of fraud and the possible effect on the financial statements (including misappropriation of cash or other assets). We have offered to perform, as a separate engagement, extended procedures specifically designed to detect fraud and you have declined to engage us to do so at this time.

The objectives also include reporting on internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with Government Auditing Standards.

Auditor's Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with GAAS and the standards for financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, and will include tests of your accounting records of Donner Summit Public Utility District and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with GAAS and Government Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of waste and abuse is subjective, Government Auditing Standards do not expect auditors to perform specific procedures to detect waste or abuse in financial audits nor do they expect auditors to provide reasonable assurance of detecting waste or abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with GAAS and Government Auditing Standards. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

In connection with this engagement, we may communicate with you or others via email transmission. As emails can be intercepted and read, disclosed, or otherwise used or communicated by an unintended third party, or may not be delivered to each of the parties to whom they are directed and only to such parties, we cannot guarantee or warrant that emails from us will be properly delivered and read only by the addressee. Therefore, we specifically disclaim and waive any liability or responsibility whatsoever for interception or unintentional disclosure of emails transmitted by us in connection with the performance of this engagement. In that regard, you agree that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions, including any consequential, incidental, direct, indirect, or special damages, such as loss of revenues or anticipated profits, or disclosure or communication of confidential or proprietary information.

We will also conclude, based on the audit evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the government's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions. We will also request written representations from your attorneys as part of the engagement and they may bill you for responding to this inquiry.

We have identified the following significant risks of material misstatement based on our prior year audit.

- Management override of controls
- Limited separation of duties
- Risks related to check fraud
- Risks related to revenue being misstated
- Risks related to the cash transactions (high balances, source of most transactions)
- Risks related to accounts receivable being authentic
- Risks related to classifying expenses
- Risks related to long term assets not being recorded
- Risks related to new debt not being properly recorded

Planning for the current year audit has not concluded and modifications to the significant risks noted above may be made.

We may, from time to time and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

Our audit of financial statements does not relieve you of your responsibilities.

Audit Procedures – Internal Control

We will obtain an understanding of the government and its environment, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinions. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to the Government Auditing Standards. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and Government Auditing Standards.

Audit Procedures-Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of Donner Summit Public Utility District's compliance with provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to Government Auditing Standards.

Other Services

We will also assist in preparing the financial statements and related notes of Donner Summit Public Utility District in conformity with accounting principles generally accepted in the United States of America, preparing the California Special Districts Financial Transaction Report, maintaining your depreciation schedule, and preparing journal entries other than proposed audit entries based on information provided by you. These nonaudit services do not constitute an audit under Government Auditing Standards and such services will not be conducted in accordance with Government Auditing Standards. We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statement services and additional items above previously defined. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

You agree to assume all management responsibilities relating to the financial statements and related notes and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements and related notes and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing, establishing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, and for evaluating and monitoring ongoing activities to help ensure that appropriate goals and objectives are met; following laws and regulations; and ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles, for the preparation and fair presentation of the financial statements and all accompanying information in conformity with accounting principles generally accepted in the United States of America, and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is responsible for making drafts of financial statements, all financial records, and related information available to us and for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by GAAS and Government Auditing Standards.

Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws, regulations, contracts, agreements, and grants and for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts or grant agreements that we report.

You are responsible for the preparation of the supplementary information, which we have been engaged to report on, in conformity with accounting principles generally accepted in the United States of America (GAAP). You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

With regard to publishing the financial statements on your website, you understand that websites are a means of distributing information and, therefore, we are not required to read the information contained in those sites or to consider the consistency of other information on the website with the original document.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Scope and Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Engagement Administration, Fees, and Other

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing. We will schedule the engagement based in part on deadlines, working conditions, and the availability of your key personnel. We will plan the engagement based on the assumption that your personnel will cooperate and provide assistance by performing tasks such as preparing requested schedules, retrieving supporting documents, and preparing confirmations. If, for whatever reason, your personnel are unavailable to provide the necessary assistance in a timely manner, it may substantially increase the work we have to do to complete the engagement within the established deadlines, resulting in an increase in fees over our original fee estimate.

We will provide copies of our reports to the District; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Hillberg & Company CPAs and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to the State of California or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Hillberg & Company CPAs personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend or decide to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of seven years after the report release date or for any additional period requested by the State of California. If we are aware that a federal awarding agency or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

Joseph A. Julio is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them. We expect to begin our audit approximately August 21, 2024 and to issue our reports no later than October 31, 2024.

Our audit engagement ends on delivery of our audit report. Any follow-up services that might be required will be a separate, new engagement. The terms and conditions of that new engagement will be governed by a new, specific engagement letter for that service.

Our fee for services will be at our standard hourly rates plus out-of-pocket costs (such as report reproduction, word processing, postage, travel, copies, telephone, etc.) except that we agree our gross fee, including expenses, will not exceed $32,500. Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

In addition, this fee estimate is based on Generally Accepted Government Accounting Standards (GAGAS) in effect as of June 30, 2023. The Governmental Accounting Standards Board (GASB) has issued and continues to issue several amendments and additions to these standards. In the event we need to spend additional time to perform extensive adjustments to your accounting records or substantial reformatting of the financial statements or the related disclosures as a result of these unknown changes, our additional time will be billed above our fees quoted above. We will discuss this with you when and if we encounter such a situation.

By signing this engagement letter, you acknowledge and agree to our records retention policy. This policy states that all records for continuing clients of the firm will be destroyed after 7 years from this engagement date. Once the firm's relationship with a client comes to a close, our policy states that all records regarding that client will be destroyed after 4 years from the engagement date (except for files regarding financial statement audit engagements, which will be destroyed after 7 years). Hillberg & Company CPAs reserves the right to make exceptions to this policy at its sole discretion. Once our files are destroyed, the only record of your engagement will be copies we provided to you at the time of the engagement.

You may request that we perform additional services not addressed in this engagement letter. If this occurs, we will communicate with you regarding the scope of the additional services and the estimated fees. We also may issue a separate engagement letter covering the additional services. In the absence of any other written communication from us documenting such additional services, our services will continue to be governed by the terms of this engagement letter.

By executing this engagement letter you consent to Hillberg & Company CPAs using your engagement information as a source of information to send you, by any medium, our newsletters or other communications. This consent is valid for five years.

Reporting

We will issue a written report upon completion of our audit of Donner Summit Public Utility District's financial statements. Our report will be addressed to management and those charged with governance of Donner Summit Public Utility District. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinions, add a separate section, or add an emphasis-of-matter or other-matter paragraph to our auditor's report, or if necessary, withdraw from this engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If circumstances occur related to the condition of your records, the availability of sufficient, appropriate audit evidence, or the existence of a significant risk of material misstatement of the financial statements caused by error, fraudulent financial reporting, or misappropriation of assets, which in our professional judgment prevent us from completing the audit or forming an opinion on the financial statements, we retain the right to take any course of action permitted by professional standards, including declining to express an opinion or issue a report, or withdrawing from the engagement.

We will also provide a report (that does not include an opinion) on internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements as required by Government Auditing Standards. The report on internal control and on compliance and other matters will state (1) that the purpose of the report is solely to describe the scope of testing of internal control and compliance, and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control on compliance, and (2) that the report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. The report will also state that the report is not suitable for any other purpose. If during our audit we become aware that Donner Summit Public Utility District is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with U.S. generally accepted auditing standards and the standards for financial audits contained in Government Auditing Standards may not satisfy the relevant legal, regulatory, or contractual requirements.

You have requested that we provide you with a copy of our most recent external peer review report and any subsequent reports received during the contract period. Accordingly, our 2020 peer review report accompanies this letter.

We appreciate the opportunity to be of service to Donner Summit Public Utility District and believe this letter accurately summarizes the significant terms of our engagement. If you have questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign below and return it to us.

Very truly yours,

Hillberg & Company, CPAs

Joseph A. Julio
Partner – Audit & Attestation

RESPONSE:

This letter correctly sets forth the understanding of Donner Summit Public Utility District.

Management Signature: _____
Title: _____
Date:_____

Governance Signature: _____
Title: _____
Date:_____

Agenda Item: 5E

March 26, 2024
Agenda Item: 5.E

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO:	Board of Directors
PREPARED BY:	Steven Palmer, PE, General Manager
SUBJECT:	Approve Annual Engagement Letter with Barnard Vogler & Co. for Professional Accounting Services for an Amount Not to Exceed $36,000

RECOMMENDATION

Approve annual engagement letter with Barnard Vogler & Co. for professional accounting services for an amount not to exceed $36,000 and authorize the General Manager to sign the letter.

BACKGROUND

Donner Summit Public Utility District (DSPUD) hires Barnard Vogler & Co. (BVC) to act as DSPUD's accountant and provide all accounting services. Each year, DSPUD provides BVC with a signed engagement letter that authorizes BVC to act as DSPUD's accountant. This year's engagement letter is included as Attachment 1.

BVC provides the following services to DSPUD:

- Record journal entries for revenue and payroll expenses
- Prepare accounts payable checks twice per month and post to general ledger
- Reconcile bank statements
- Prepare Forms 1099 and 1096
- Post annual revenue and expense budget numbers to the general ledger
- Prepare monthly financial statements
- Assist with accounting policies and recommendations regarding internal controls.

DISCUSSION AND ANALYSIS

Since DSPUD does not have proper staffing, expertise, or software to provide reliable accounting in-house, a contract accountant is necessary. Additionally, a contract accountant provides a separation of duties which enhances fraud prevention. For example, this arrangement allows DSPUD to separate the invoice approval process from the check preparation process. Since BVC is familiar with DSPUD and has been providing quality service, Staff recommends approving the engagement letter and continuing to work with BVC.

FISCAL IMPACT

Services are provided on a time and material basis, with a not to exceed amount of $30,000. The annual cost of services typically cost between $25,000 and $28,000. The cost of these services is included in both the current budget and the proposed Fiscal Year 2022/23 budget.

CEQA ASSESSMENT

This is not a CEQA Project

ATTACHMENTS

1. Engagement Letter

BARNARD VOGLER & CO.
Certified Public Accountants

100 West Liberty St.
Suite 1100
Reno, NV 89501

775.786.6141
775.323.6211
bvcocpas.com

February 29, 2024

Steve Palmer
Donner Summit Public Utility District
P.O. Box 610
Soda Springs, CA 95728

Dear Steve:

You have requested that we prepare the financial statements of Donner Summit Public Utility District, which comprise the statements of activity – budgetary basis as of each month end and for the year ended December 31, 2024, and perform a compilation engagement with respect to those financial statements. These financial statements will not include a statement of net position, statement of cash flows and related notes to the financial statements. We are pleased to confirm our acceptance and our understanding of this engagement by means of this letter.

Our Responsibilities

The objective of our engagement is to:

a) Prepare financial statements in accordance with the budgetary basis of accounting based on information provided by you; and

b) Apply accounting and financial reporting expertise to assist you in the presentation of financial statements without undertaking to obtain or provide any assurance that there are no material modifications that should be made to the financial statement in order for them to be in accordance with the budgetary basis of accounting.

We will conduct our compilation engagement in accordance with Statement on Standards for Accounting and Review Services (SSARSs) promulgated by the Accounting and Review Services Committee of the AICPA and comply with the AICPA's Code of Professional Conduct, including the ethical principles of integrity, objectivity, professional competence, and due care.

We are not required to, and will not, verify the accuracy or completeness of the information you will provide to us for the engagement or otherwise gather evidence for the purpose of expressing an opinion or a conclusion. Accordingly, we will not express an opinion or a conclusion nor provide any assurance on the financial statements.

Our engagement cannot be relied upon to identify or disclose any financial statement misstatements, including those caused by fraud or error, or to identify or disclose any wrongdoing within the entity or noncompliance with laws and regulations.

Your Responsibilities

The compilation engagement to be performed is conducted on the basis that you acknowledge and understand that our role is to prepare financial statements in accordance with the budgetary basis of accounting and assist you in the presentation of the financial statements in accordance with the budgetary basis of accounting. You have the following overall responsibilities that are fundamental to our undertaking the engagement in accordance with SSARSs:

a) The selection of the budgetary basis of accounting as the financial reporting framework to be applied in the preparation of the financial statements.

b) The preparation and fair presentation of the financial statements in accordance with the budgetary basis of accounting.

c) The design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statements.

d) The prevention and detection of fraud.

e) To ensure that the entity complies with the laws and regulations applicable to its activities.

f) The accuracy and completeness of the records, documents, explanations and other information, including significant judgments, you provide to us for the engagements.

g) To provide us with:

   i. Access to all information of which you are aware is relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters.

   ii. Additional information that we may request from you for the purpose of the compilation engagement.

   iii. Unrestricted access to persons within the entity of whom we determine it necessary to make inquiries.

You are also responsible for all management decisions and responsibilities and for designating an individual with suitable skills, knowledge, and experience to oversee our preparation of your financial statements and all other nonattest services that we provide. You are responsible for evaluating the adequacy and results of the services performed and accepting responsibility for such services.

Our Report

As part of our engagement, we will issue a report that will state that we did not audit or review the financial statements and that, accordingly, we do not express an opinion, a conclusion, nor provide any assurance on them. Circumstances may arise in which it is necessary for us to modify our report or withdraw from the engagement.

Our report will disclose that the financial statements are prepared in accordance with the budgetary basis of account, which is a basis of accounting other than accounting principles generally accepted in the United States of America.

Our report will disclose that the Company's management has elected to omit the statement of cash flows and substantially all of the disclosures required by accounting principles generally accepted in the United States of America. If the statement of cash flows and omitted disclosures were to be included in the financial statements, they might influence the user's conclusions about the Company's financial position, results of operations, and cash flows. Accordingly, the financial statements will not be designed for those who are not informed about such matters.

You agree to include our accountants' compilation report in any document containing financial statements that indicates that we have performed a compilation engagement on such financial statements and, prior to inclusion of the report, to ask our permission to do so.

Other Relevant Information

As part of our engagement, we will also perform the following nonattest bookkeeping services:

- Assistance with recording journals for revenue and payroll expenses
- Assistance with preparing accounts payable vendor checks twice a month
- Assistance with posting to the general ledger
- Assistance with reconciling bank statements
- Assistance with preparing forms 1099 and 1096
- Assistance with posting budget numbers for revenue and expenses annually
- Assistance with preparing reports for the annual financial statement audit

We will not assume management responsibilities on behalf of Donner Summit Public Utility District. However, we will provide advice and recommendations to assist management of Donner Summit Public Utility District in performing its responsibilities.

Donner Summit Public Utility District's management is responsible for (a) making all management decisions and performing all management functions; (b) assigning a competent individual to oversee the services; (c) evaluating the adequacy of the services performed; (d) evaluating and accepting responsibility for the results of the services performed; and (e) establishing and maintaining internal controls, including monitoring ongoing activities.

Our responsibilities and limitations of the engagement are as follows:

- We will perform the services in accordance with applicable professional standards.

- This engagement is limited to compilation and bookkeeping services previously outlined. Our firm, in its sole professional judgment, reserves the right to refuse to do any procedure or take any action that could be construed as making management decisions or assuming management responsibilities, including determining account coding and approving journal entries.

If, for any reason, we are unable to complete the compilation of your financial statements, we will not issue a report on such statements as a result of this engagement.

David Schaper is the engagement director and is responsible for supervising the engagement and signing the report or authorizing another individual to sign it.

Our firm may transmit confidential information that you provided us to third parties in order to facilitate delivering our services to you. For example, such transmissions might include, but not be limited to tax software developers, technology contractors and data storage providers. We will take reasonable precautions to determine that they have the appropriate procedures in place to prevent the unauthorized release of confidential information to others. By your signature below, you consent to having confidential information transmitted to entities outside the firm. Please feel free to inquire if you would like additional information regarding the transmission of confidential information to entities outside the firm.

We estimate that our fees for these services will average $3,000 per month. Some months are expected to be higher and some lower. For the 12 months of financial statements and bookkeeping ended December 31, 2023, we have billed you $33,388. You will also be billed for out-of-pocket costs such as report production, typing, postage, travel, etc. The fee is based upon anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the work performed. If significant additional time is necessary, we will discuss it with you and arrive at a new fee. If you require additional work, we will discuss this with you in advance and you will be billed at our standard hourly rates based upon the personnel involved.

We appreciate the opportunity to be of service to you and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Sincerely,

Barnard, Vogler & Co.

Accepted by: _____

Title: _____

Date: _____

Agenda Item: 6A

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: General Manager Report

Project Updates

Sugar Bowl West and East Village Sewer Project

- Currently working on agreement for construction advance with owners.
- Selected a consultant for construction management and inspection.
- Project website: https://dspud.com/sugar-bowl/

Big Bend Water Line Replacement Project Phase 1

- One proposal received from Ben-En Engineering in Roseville.
- Submitted request for additional funding from PCWA.

Other

- CSDA Call to Action on federal legislation to define special districts. General Manager submitted a response as requested by CSDA. Summary of legislation is attached.

Upcoming Board Items

April

- Sugar Bowl Sewer Extension Project Phase 2A Owner's Reimbursement Agreement
- Sugar Bowl Sewer Extension Project Phase 2A Construction Management Agreement
- Accept easements for existing sewer and Phase 2A sewer in Sugar Bowl
- Award Sugar Bowl Sewer Extension Project Phase 2A Construction Contract

May

- Approve job descriptions
- Draft Fiscal Year 2024 Budget
- Draft Five Year Capital Improvement Plan

NSDC
NATIONAL SPECIAL DISTRICTS COALITION

Special District Grant Accessibility Act

Sponsored by Representative Pat Fallon (R-TX)
& Representative Brittany Pettersen (D-CO)

Introduced: March 5, 2024

March 26, 2024
Agenda Item: 6A

Approximately 35,000 special districts are local governments providing critical infrastructure and essential services in thousands of communities across the country. They exist when a community demands a service that another unit of government is not otherwise providing. These agencies are established and locally governed under an enabling act or special act of a state to provide a limited and specific set of public services.

The Problem

Despite the significant presence of special districts in the U.S.,

Federal law lacks a consistent definition and reference to special purpose units of local government.

As a result, special districts:

- May have difficulties directly accessing funding opportunities.
- Are commonly omitted as eligible in the definitions of "local government" for proposed legislation and laws intended to assist all local governments.
- Are mistaken for small businesses or nonprofit corporations.
- Lack official population figures, as they are not federally recognized as "geographic units of government."

The Solution: H.R. 7525

The Special District Grant Accessibility Act

- Requires Federal agencies to recognize special districts as local government for the purpose of Federal financial assistance determinations.
- Codifies in Federal law a first-ever, formal definition of "special district."

"Special District" Defined

H.R. 7525 - The Special District Grant Accessibility Act, defines "special district" as follows:

> The term "special district" means a **political subdivision of a State**, with specified boundaries and significant budgetary autonomy or control, created by or pursuant to the laws of the State, for the **purpose of performing limited and specific governmental or proprietary functions** that distinguish it as a significantly separate entity from the administrative governance structure of any other form of local government unit within a State.

Common Services Provided

- Water & Wastewater
- Irrigation
- Fire Protection
- Ambulance
- Transit
- Healthcare & Hospital
- Park & Recreation
- Port/Harbor/ Navigation
- Library
- Cemetery
- Road & Highway
- Airport
- Electricity
- Mosquito Control
- Resource Conservation

Quick Facts

35,000
Special District Governments

17%
All local government revenue

50 states

Connect & Engage on Solutions

NSDC is the only national organization representing and advocating for all types of special districts at the federal level.

jk@paragonlobbying.com
(877) 924-2732

Agenda Item: 6B

DONNER SUMMIT

PUBLIC UTILITY DISTRICT

WASTEWATER AND FRESH WATER

TREATMENT PLANTS

END OF MONTH OPERATIONS AND MAINTENANCE

SUMMARY

February 2024

Donner Summit Public Utility District
Waste Water Flow Data

March 26, 2024
Agenda Item: 6B

MONTH OF February 2024		DSPUD Influent	SLCWD Influent	Total Plant Influent	Total Plant EFF River	Total Plant EFF Snow Storage	Total Plant EFF Snow Delivery	DSPUD Fresh Water Treated	SLCWD Fresh Water Treated	Weather	
DATE	DAY	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	Cond	Comments
02/01/24	THU	0.15223	0.04977	0.2020	0.231	0.0000	0.0000	0.191	0.03405	Snow	6" Snow
02/02/24	FRI	0.20130	0.05370	0.2550	0.257	0.0000	0.0000	0.329	0.00000	Snow	2" Snow
02/03/24	SAT	0.19442	0.05858	0.2530	0.243	0.0000	0.0000	0.186	0.00000	Snow	12" Snow
02/04/24	SUN	0.16867	0.04833	0.2170	0.228	0.0000	0.0000	0.228	0.00000	Snow	6" Snow
02/05/24	MON	0.15151	0.04849	0.2000	0.202	0.0000	0.0000	0.251	0.05152	Snow	6" Snow
02/06/24	TUE	0.15807	0.04793	0.2060	0.212	0.0000	0.0000	0.350	0.07019	Snow	7" Snow
02/07/24	WED	0.14141	0.04659	0.1880	0.213	0.0000	0.0000	0.163	0.05901	Snow	1" Snow
02/08/24	THU	0.17940	0.04960	0.2290	0.206	0.0000	0.0000	0.257	0.02821	Snow	5" Snow
02/09/24	FRI	0.17518	0.05382	0.2290	0.250	0.0000	0.0000	0.198	0.00000	Clear	
02/10/24	SAT	0.23003	0.06697	0.2970	0.240	0.0000	0.0000	0.233	0.00000	Clear	
02/11/24	SUN	0.19195	0.07005	0.2620	0.344	0.0000	0.0000	0.232	0.06102	Clear	
02/12/24	MON	0.42457	0.06743	0.4920	0.269	0.0000	0.0000	0.257	0.07225	Clear	
02/13/24	TUE	0.13715	0.04585	0.1830	0.326	0.0000	0.0000	0.226	0.06152	Cloudy	
02/14/24	WED	0.12876	0.04624	0.1750	0.301	0.0000	0.0000	0.290	0.07128	Snow	1" Snow
02/15/24	THU	0.18312	0.04788	0.2310	0.319	0.0000	0.0000	0.259	0.05431	Snow	13" Snow
02/16/24	FRI	0.17369	0.06031	0.2340	0.345	0.0000	0.0000	0.241	0.00000	Cloudy	
02/17/24	SAT	0.23610	0.08590	0.3220	0.343	0.0000	0.0000	0.255	0.00000	Cloudy	
02/18/24	SUN	0.24802	0.09498	0.3430	0.369	0.0000	0.0000	0.148	0.09858	Snow	6" Snow
02/19/24	MON	0.17645	0.08355	0.2600	0.389	0.0000	0.0000	0.333	0.04835	Snow	7" Snow
02/20/24	TUE	0.20423	0.07977	0.2840	0.293	0.0000	0.0000	0.280	0.13740	Snow	2" Snow
02/21/24	WED	0.19180	0.08920	0.2810	0.374	0.0000	0.0000	0.186	0.10426	Snow	7" Snow
02/22/24	THU	0.21756	0.07344	0.2910	0.360	0.0000	0.0000	0.166	0.14264	Clear	
02/23/24	FRI	0.20877	0.07523	0.2840	0.355	0.0000	0.0000	0.028	0.00000	Clear	
02/24/24	SAT	0.23971	0.07829	0.3180	0.306	0.0000	0.0000	0.124	0.00000	Clear	
02/25/24	SUN	0.19125	0.06475	0.2560	0.318	0.0000	0.0000	0.315	0.00000	Clear	
02/26/24	MON	0.16449	0.05151	0.2160	0.227	0.0000	0.0000	0.334	0.06591	Cloudy	1" Snow
02/27/24	TUE	0.14427	0.05173	0.1960	0.220	0.0000	0.0000	0.298	0.07351	Cloudy	
02/28/24	WED	0.17541	0.05659	0.2320	0.243	0.0000	0.0000	0.178	0.05340	Clear	
02/29/24	THU	0.18661	0.05139	0.2380	0.303	0.0000	0.0000	0.248	0.05826	Cloudy	
											82" Snow
2/2024 Daily Totals		5.57616	1.79784	7.374	8.286	0.000	0.000	6.7840	1.3457	2023	87" Snow
2/2024 Totalizer Total		5.57616	1.79784	7.374	8.286	0.000	0.000	6.7840	1.3457		
Difference		0.00000	0.00000	0.00000	0.0000	0.0000	N/A	0.0000	0.0000		
Percentage Difference		0.00%	0.000%	0.000%	0.000%	#DIV/0!	N/A	0.000%	0.004%		
2/2024 AVG/DAY		199,149	64,209	263,357	295,929	0	0	242,286	48,061		
Percentage Flow SLCWD			24.381%								
2/2023 Totalizer Total		5.73768	1.90232	7.6400	7.667	0.000	0.000	6.5750	1.666500		
2/2023 AVG/DAY		197,851	65,597	263,448	264,379	0.000	0.000	226,724	57,466		

Donner Summit Public Utility District
WWTP & WTP
End of Month
Operations and Maintenance Summary

Prepared for: Steve Palmer, General Manager

Prepared by: Jim King, Plant Manager

Date: February 2024

Operations WWTP

- Discharged 8.2 MG to the river.
- Discontinued snow water delivery.
- Staff investigated a call about a sewer problem/backup out at Sugar Bowl Academy. Since it was isolated in one building a plumber was called. After attempting to clear the sewer lateral with no success it was determined that the blockage was in the mainline. With the assistance from Sugar Bowl staff and equipment, and the plumbing company, three manholes were accessed. The main line blockage was cleared, and normal flow returned. Staff reported the spill to all the required agencies along with a cleaning and restoration company to facilitate cleanup and building damage evaluation. All agencies affected contacted their respective insurance agencies.







- Continued testing the sewer collection system for zinc to narrow down the areas of the district that might be contributing to the high concentrations zinc being experienced at the treatment facility.

- Began and completed returning unused snow making water from storage to the headworks for retreatment as required by permit.


- Continued feeding/adjusting ammonia and Micro C to the treatment reactors to keep up with changing flows and loads from the ski areas.

- Reset and restarted equipment multiple times for power issues at the plant and outlying lift stations.

- Supernated 8' of clear wastewater from the solids holding tank.
- Staff continued to gather flow meter data from sewer pump stations L-8 and N-2 that services Sugar Bowl.
- Cleared snow from the plant multiple times and blew snow out of sludge drying beds.

- Processed 0 USA dig tickets.

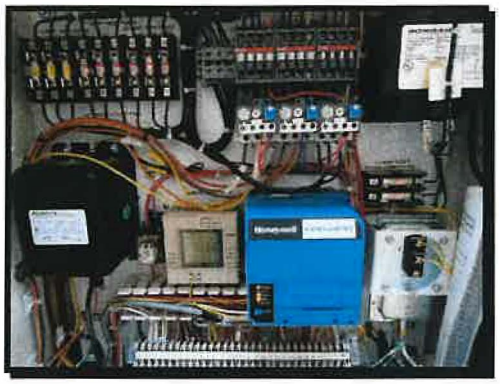
Operations Water Plant

- Staff located and marked the water service at 21691 Lotta Crabtree for the fire line hookup.
- Refilled fuel tank on standby generator.

- Completed and sent out monthly potable water reports to DHS.
- Staff continued to work on the new lead and copper water line inventory requirements that need to be implemented in October of this year.

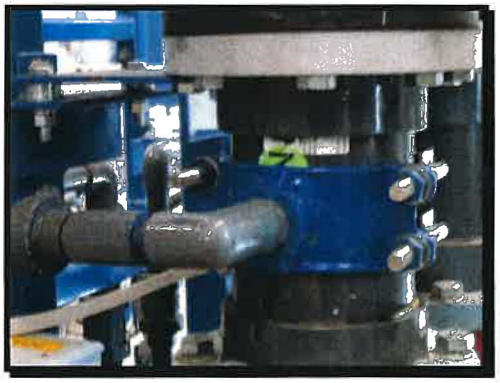
Repairs and Maintenance WWTP

- With the help of EMCORE, staff began investigating why the Heat Exchangers continue to have electrical issues causing blown fuses.



- Replaced a failed permeate motor pressure switch on membrane train #2.
- Reset sewer lift station #7 after power lines failed and were repaired.

- Installed a new chemical feed spool on membrane skid #1.



- Staff trouble shot issues with the membrane SCADA controls after the computer system was updated.

- Refueled standby generators at sewer lift stations.
- Repaired handlebars on the snow blower.

- Replaced failed gasket on the outlet side of the permeate pump on membrane skid #2.

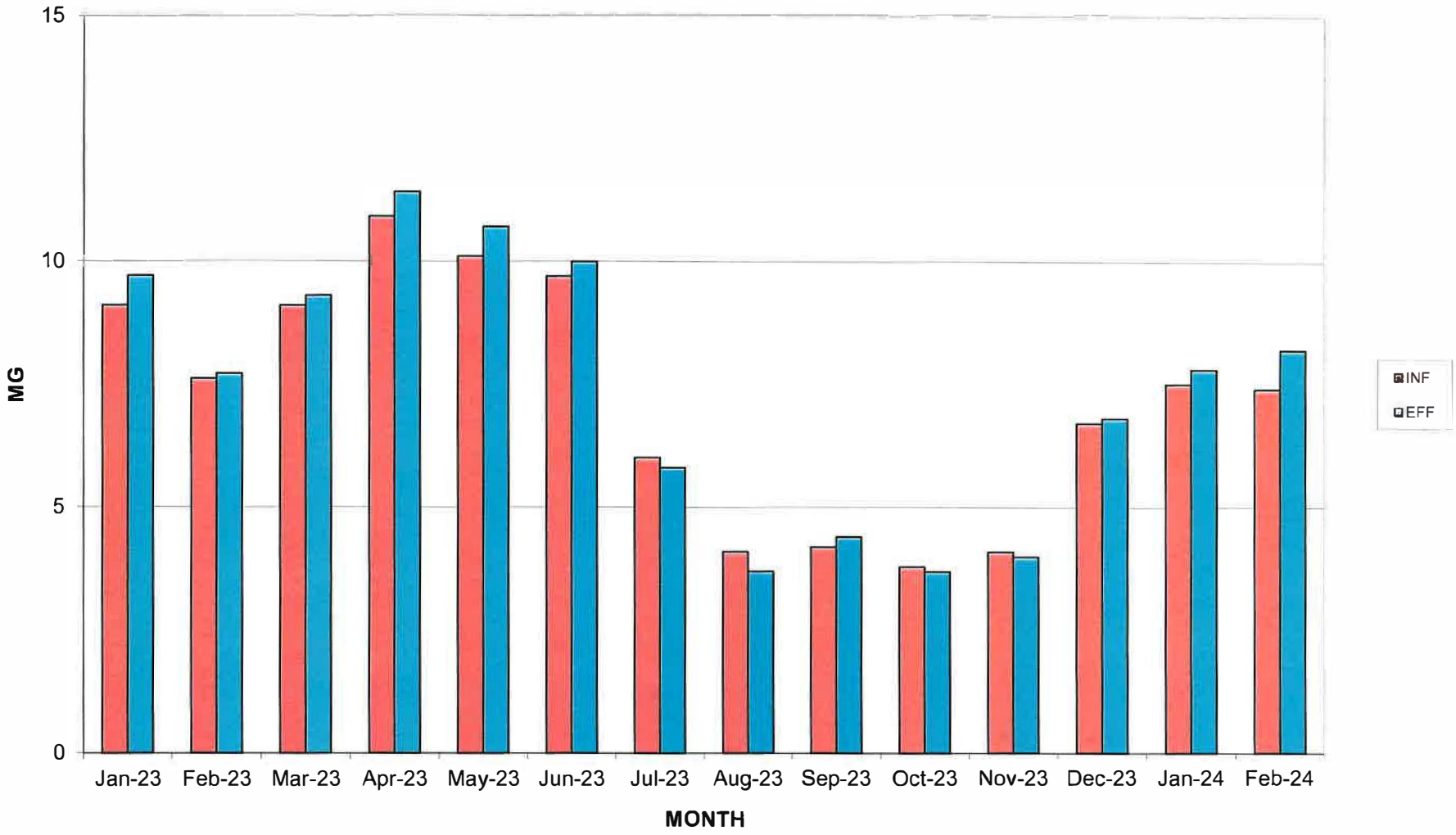
Repairs and Maintenance WTP

- Staff had to reset the PLC and radio at Reservoir 2 for level control after power fail issues.
- Staff lost a wheel off the Piston-Bully snow cat due to loose lug nuts. The lease company was called and came out to do repairs and check the rest of the wheels.

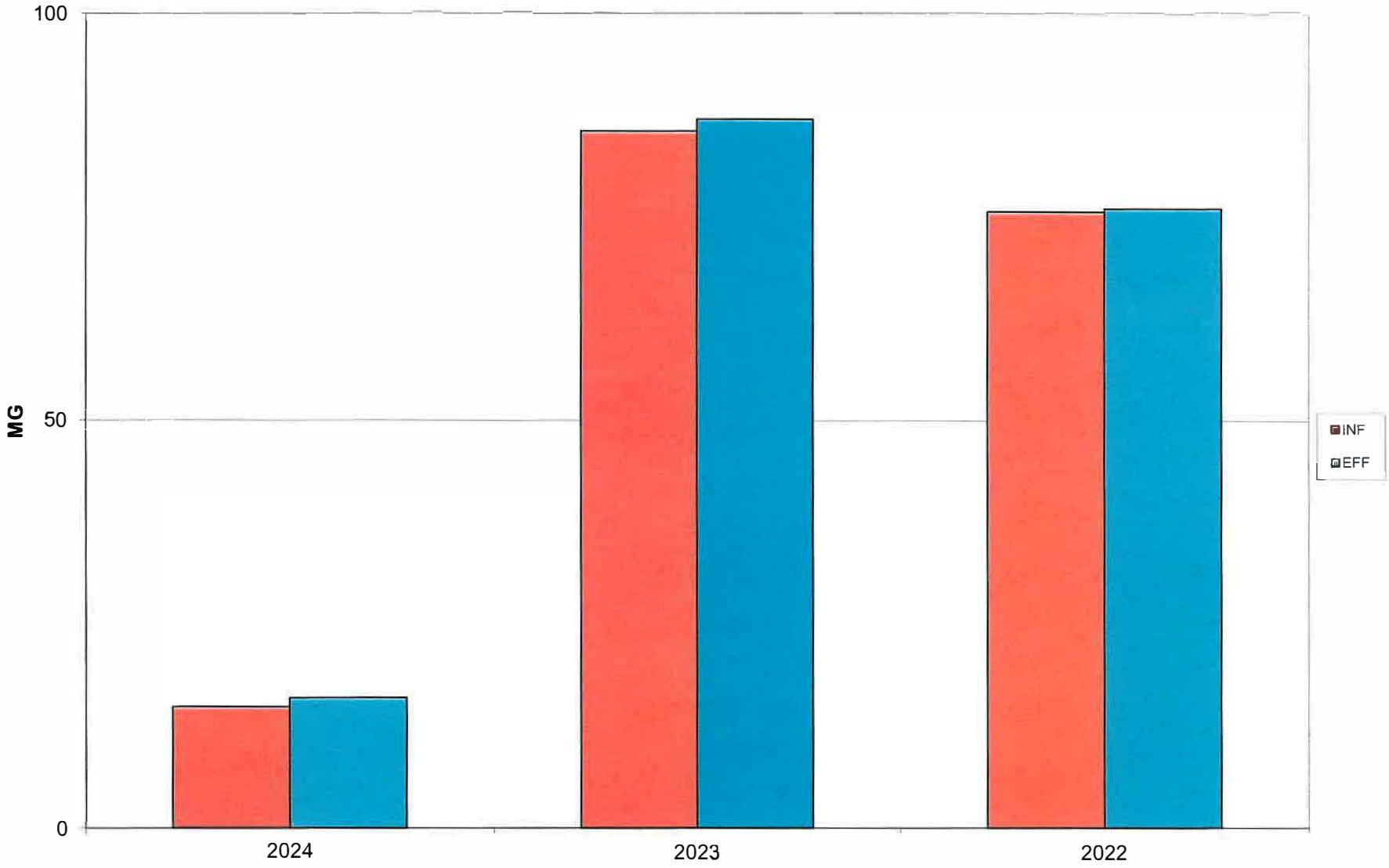
Laboratory

- Continued river discharge and snow water storage monitoring.
- Continued testing for zinc residuals out in the districts collection system.

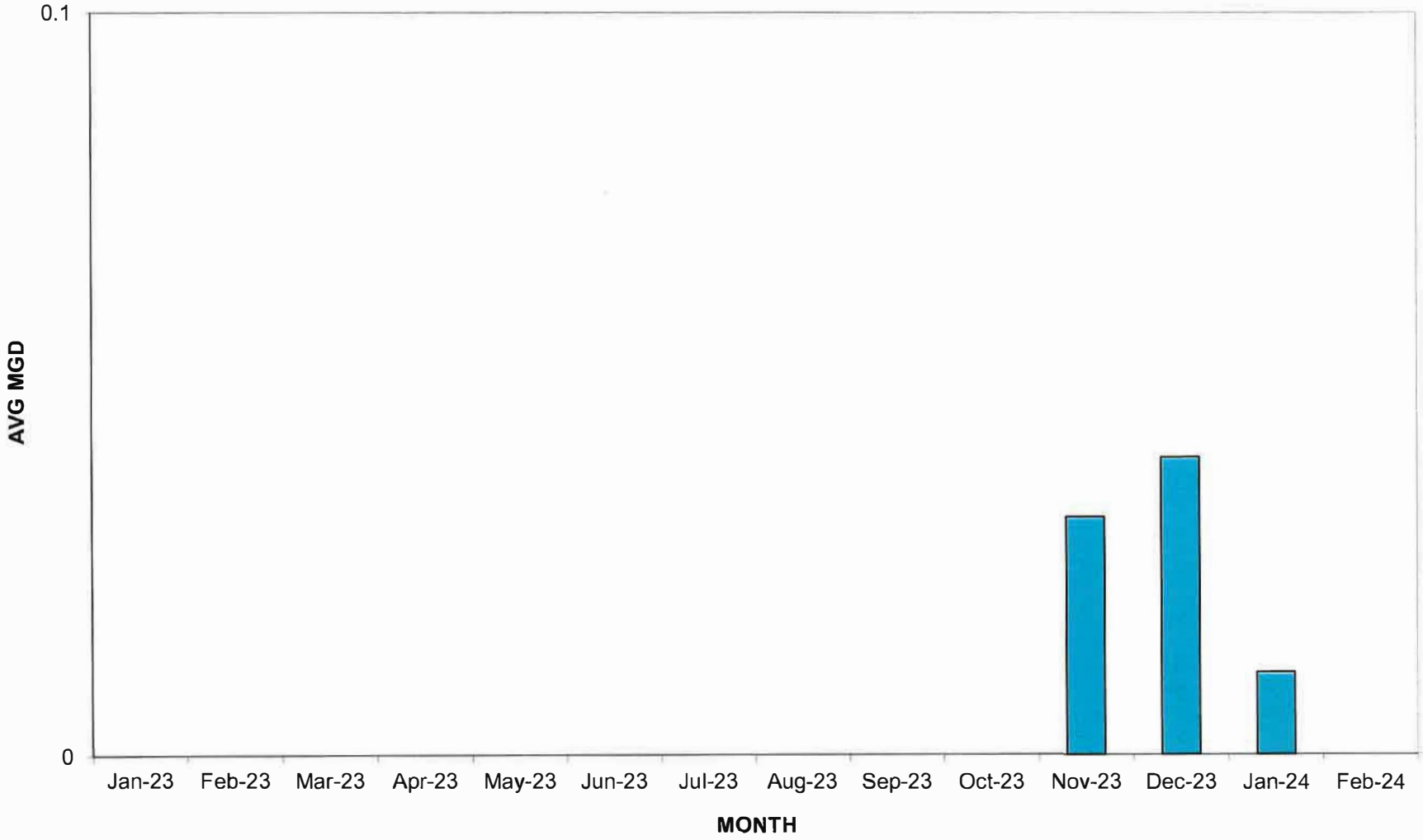
DONNER SUMMIT PUD WWTP TOTAL INFLUENT FLOW TO TOTAL EFFLUENT FLOW YEAR 2023/2024



DONNER SUMMIT PUD WWTP ANNUAL TOTAL INFLUENT FLOW TO TOTAL EFFLUENT FLOW
2024 DATA THROUGH FEBRUARY



DONNER SUMMIT PUD WWTP AVG EFFLUENT FLOW TO SNOW STORAGE/PRODUCTION YEARS 2023/2024



Agenda Item: 7A

March 26, 2024
Agenda Item: 7A

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: Budget to Actual Report for Period Ending January 31, 2024

RECOMMENDATION

Receive FY2023-2024 budget to actual report for July 1, 2023 through January 31, 2024 from the General Manager.

BACKGROUND

To provide timely information to the Board and the public, this report provides a comparison of the approved operating budget to actual revenues and expenditures for the first seven months of Fiscal Year 2023-2024. The comparison is presented in Attachment 1, and any material differences are discussed in this Staff Report.

DISCUSSION

At this point in the fiscal year total expenses are 67% of the budgeted amount; with water expenses at 58%, sewer expenses at 65%, wastewater treatment expenses at 73%, and administration expenses at 58%. Overall, this is slightly higher than expected at this point in the fiscal year.

ANALYSIS

One reason for expenses to be slightly higher than expected is the timing of the payment for the wastewater treatment plant loan. This loan payment of $719,191 is made in January each year and it tends to skew expense data. After adjusting for this loan payment, the wastewater treatment expenses drop to 60% of budget, and total expenses drop to 60% of budget.

FISCAL IMPACT

This item is informational and there is no fiscal impact.

CEQA ASSESSMENT

This is not a CEQA Project

ATTACHMENTS

1. January 31, 2024, FY2023-2024 Budget to Actual Comparison
2. Presentation

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET
January 31, 2024

ALL DEPARTMENTS SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Water Revenue				
Water Program Revenue	$ 566,984	$ 729,994	$ 163,010	78%
Water General Revenue	56,340	105,863	$ 49,523	53%
Total Water Revenue	*$ 623,325*	*$ 835,857*	*$ 212,533*	*75%*
Wastewater Revenue				
Wastewater Program Revenue	$ 2,032,757	$ 2,843,669	$ 810,912	71%
Wastewater General Revenue	249,380	400,746	$ 151,366	62%
Total Wastewater Revenue	*$ 2,282,136*	*$ 3,244,415*	*$ 962,278*	*70%*
Administration Revenue				
Admin Program Revenue	$ -	$ -	$ -	
Admin General Revenue	4,539	11,000	$ 6,461	41%
Total Administration Revenue	*$ 4,539*	*$ 11,000*	*$ 6,461*	*41%*
Total Revenues	***$ 2,910,000***	***$ 4,091,272***	***$ 1,181,273***	***71%***
Water Expenses				
Salaries and Benefits	$ 116,017	$ 194,955	$ 78,938	60%
Materials, Supplies, Services	266,279	414,329	$ 148,050	64%
Debt Service	9,094	38,158	$ 29,064	24%
Capital Equipment	24,534	27,451	$ 2,917	89%
Capital Projects	-	37,300	$ 37,300	0%
Total Water Expenses	*$ 415,923*	*$ 712,193*	*$ 296,270*	*58%*
Wastewater Expenses				
Salaries and Benefits	$ 409,691	$ 693,398	$ 283,707	59%
Materials, Supplies, Services	701,876	1,145,345	$ 443,469	61%
Debt Service	731,845	740,884	$ 9,039	99%
Capital Equipment	75,513	89,386	$ 13,873	84%
Capital Projects	-	8,200	$ 8,200	0%
Total Wastewater Expenses	*$ 1,918,925*	*$ 2,677,213*	*$ 758,288*	*72%*
Admin Expenses				
Salaries and Benefits	$ 229,760	$ 421,946	$ 192,186	54%
Board Expenses	42,898	72,245	$ 29,347	59%
Materials, Supplies, Services	138,590	206,882	$ 68,292	67%
Debt Service	-	-	$ -	
Capital Equipment	-	7,500	$ 7,500	0%
Capital Projects	-	-	$ -	
Total Admin Expenses	*$ 411,248*	*$ 708,573*	*$ 297,325*	*58%*
Total Expenses	***$ 2,746,096***	***$ 4,097,979***	***$ 1,351,883***	***67%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

WATER SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Program Revenue				
Water fees	$ 528,096	$ 677,677	$ 149,581	78%
Connection fees		-	$ -	
Recycled water sales		-	$ -	
Big Bend Service Fees	23,310	31,546	$ 8,236	74%
Big Bend Assessment	$ 15,579	$ 20,772	$ 5,193	75%
Total Program Revenue	*$ 566,984*	*$ 729,994*	*$ 163,010*	*78%*
General Revenues				
Property tax	$ 20,964	$ 30,213	$ 9,249	69%
Other income	$ 34,702	$ 55,250	$ 20,548	63%
Grants	$ 675	20,400	$ 19,725	3%
Total General Revenues	$ 56,340	$ 105,863	$ 49,523	53%
Total Revenues	***$ 623,325***	***$ 835,857***	***$ 212,533***	***75%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

WATER SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Expenses				
Salaries	$ 79,422	$ 129,183	$ 49,761	61%
Overtime	$ 9,347	$ 13,295	$ 3,948	70%
Medical/Dental/Life Insurance	$ 17,201	$ 27,488	$ 10,287	63%
Long Term Disability	$ 788	$ 1,292	$ 504	61%
Retirement	$ -	$ 7,751	$ 7,751	0%
Clothing Allowance	$ -	$ 792	$ 792	0%
Payroll Tax	$ 7,275	$ 11,754	$ 4,479	62%
W/C Insurance	$ 1,984	$ 3,400	$ 1,416	58%
Salaries & Benefits	*$ 116,017*	*$ 194,955*	*$ 78,938*	*60%*
Professional fees	$ 51,039	115,452	$ 64,413	44%
Dues and subscriptions	$ 90	680	$ 590	13%
Fees, permits, certifications, leases	$ 6,191	17,530	$ 11,339	35%
Training, education, travel	$ 155	1,000	$ 845	15%
Travel	$ -	-	$ -	
Insurance	$ 30,801	47,700	$ 16,899	65%
Office supplies and miscellaneous	$ 236	550	$ 314	43%
Utilities, communications, telemetry	$ 31,102	50,309	$ 19,207	62%
Chemicals and lab supplies	$ 10,757	30,000	$ 19,243	36%
Laboratory testing	$ (140)	5,000	$ 5,140	-3%
Equipment maintenance and repair	$ 14,843	39,645	$ 24,802	37%
Small equipment and rental	$ 10,697	3,150	$ (7,547)	340%
Interest expense	$ -	-	$ -	
Operating supplies	$ 464	390	$ (74)	119%
Vehicle maintenance, repair, fuel	$ 2,355	5,610	$ 3,255	42%
Facility maintenance and repair	$ 107,690	97,313	$ (10,377)	111%
Materials, Supplies, Services	*$ 266,279*	*$ 414,329*	*$ 148,050*	*64%*
Angela WTP Loan P&I	$ 9,094	$ 18,188	$ 9,094	50%
Big Bend Debt Service	$ -	19,970	$ 19,970	0%
Debt Service	*$ 9,094*	*$ 38,158*	*$ 29,064*	*24%*
Capital Equipment	$ 24,534	$ 27,451	$ 2,917	89%
Capital Projects	$ -	37,300	$ 37,300	0%
Total Expenses	***$ 415,923***	***$ 712,193***	***$ 296,270***	***58%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

SEWER SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Program Revenue				
Sewer rates	$ 430,898	$ 483,683	$ 52,785	89%
Connection fees			0	
Total Program Revenue	*$ 430,898*	*$ 483,683*	$ 52,785	89%
General Revenues				
Property tax	$ 13,750	$ 20,353	$ 6,603	68%
Other	$ 3,444	3,000	$ (444)	
Total General Revenues	$ 17,194	$ 23,353	$ 6,159	74%
Total Revenues	***$ 448,092***	***$ 507,036***	***$ 58,944***	***88%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

SEWER SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Expenses				
Salaries	$ 66,786	$ 108,631	$ 41,845	61%
Overtime	$ 7,860	$ 11,180	$ 3,320	70%
Medical/Dental/Life Insurance	$ 13,535	$ 23,115	$ 9,581	59%
Long Term Disability	$ 663	$ 1,086	$ 423	61%
Retirement	$ 0	$ 6,518	$ 6,518	0%
Clothing Allowance	$ -	$ 666	$ 666	0%
Payroll Tax	$ 6,118	$ 9,884	$ 3,766	62%
W/C Insurance	$ 491	$ 3,380	$ 2,889	15%
Salaries & Benefits	*$ 95,453*	*$ 164,460*	*$ 69,007*	*58%*
Professional fees	$ 291	-	$ (291)	
Dues and subscriptions	$ -	-	$ -	
Fees, permits, certifications, leases	$ -	460	$ 460	0%
Training, education, travel	$ -	300	$ 300	0%
Travel	$ -	-	$ -	
Insurance	$ 25,607	40,111	$ 14,504	64%
Office supplies and miscellaneous	$ 263	550	$ 287	48%
Utilities, communications, telemetry	$ 15,508	30,512	$ 15,004	51%
Chemicals and lab supplies	$ -	500	$ 500	0%
Laboratory testing	$ -	-	$ -	
Equipment maintenance and repair	$ 5,223	24,350	$ 19,127	21%
Small equipment and rental	$ 10,697	-	$ (10,697)	
Infiltration and inflow program	$ 33,014	30,000	$ (3,014)	110%
Operating supplies	$ 3,227	1,200	$ (2,027)	269%
Vehicle maintenance, repair, fuel	$ 7,064	5,410	$ (1,654)	131%
Facility maintenance and repair	$ 4,809	7,640	$ 2,831	63%
Materials, Supplies, Services	*$ 105,701*	*$ 141,033*	*$ 35,332*	*75%*
Interest	$ -		$ -	
Long Term Debt	$ -		$ -	
Debt Service	*$ -*	*$ -*	$ -	
Capital Equipment	$ 17,327	$ 20,500	$ 3,173	85%
Capital Projects	$ -	8,200	$ 8,200	0%
Total Expenses	***$ 218,481***	***$ 334,193***	***$ 115,712***	***65%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

WASTEWATER TREATMENT PLANT SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Program Revenue				
Sewer rates	$ 1,292,693	$ 1,531,662	$ 238,969	84%
Recycled Water Sales		$ -	$ -	
Connection fees		$ -	$ -	
Non CFD Revenue for WWTP Loan	$ 3,089	$ 281,044	$ 277,955	1%
Sierra Lakes Service	$ 306,077	$ 547,280	$ 241,203	56%
Total Program Revenue	*$ 1,601,859*	*$ 2,359,986*	*$ 758,127*	*68%*
General Revenues				
Property tax	60,575	86,800	$ 26,225	70%
CFD Revenue for WWTP Loan	$ 167,949	$ 290,593	$ 122,644	58%
Other income	3,661	-	$ (3,661)	
Total General Revenues	$ 232,186	$ 377,393	$ 145,207	62%
Total Revenues	***$ 1,834,045***	***$ 2,737,379***	***$ 903,335***	***67%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

WASTEWATER TREATMENT PLANT SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Expenses				
Salaries	$ 214,800	$ 349,380	$ 134,580	61%
Overtime	$ 25,279	$ 35,957	$ 10,678	70%
Medical/Dental/Life Insurance	$ 42,954	$ 74,342	$ 31,388	58%
Long Term Disability	$ 2,132	$ 3,493	$ 1,361	61%
Retirement	$ (0)	$ 20,963	$ 20,963	0%
Clothing Allowance	$ 1,000	$ 2,142	$ 1,142	47%
Payroll Tax	$ 20,251	$ 31,790	$ 11,539	64%
W/C Insurance	$ 7,821	$ 10,871	$ 3,050	72%
Salaries & Benefits	*$ 314,238*	*$ 528,938*	*$ 214,700*	*59%*
Professional fees	$ 14,991	52,900	$ 37,909	28%
Dues and subscriptions	$ 1,121	2,200	$ 1,079	51%
Fees, permits, certifications, leases	$ 29,245	28,000	$ (1,245)	104%
Training, education, travel	$ 508	3,120	$ 2,612	16%
Insurance	$ 81,368	129,006	$ 47,638	63%
Office supplies and miscellaneous	$ 787	2,248	$ 1,461	35%
Utilities, communications, telemetry	$ 216,624	458,000	$ 241,376	47%
Chemicals and lab supplies	$ 140,186	180,380	$ 40,194	78%
Laboratory testing	$ 23,590	26,043	$ 2,453	91%
Equipment maintenance and repair	$ 19,607	19,420	$ (187)	101%
Small equipment and rental	$ 476	1,240	$ 764	38%
Sludge removal	$ 19,495	22,340	$ 2,845	87%
Operating supplies	$ 605	375	$ (230)	161%
Vehicle maintenance, repair, fuel	$ 5,184	17,520	$ 12,336	30%
Facility maintenance and repair	$ 42,387	61,520	$ 19,133	69%
Materials, Supplies, Services	*$ 596,175*	*$ 1,004,312*	*$ 408,137*	*59%*
Long Term Debt	$ 719,191	719,191	$ (0)	100%
Land Lease	$ 12,654	21,693	$ 9,039	58%
Debt Service	*$ 731,845*	*$ 740,884*	*$ 9,039*	*99%*
Capital Equipment	$ 58,186	$ 68,886	$ 10,700	84%
Capital Projects	$ -	-	$ -	
Total Expenses	***$ 1,700,444***	***$ 2,343,020***	***$ 642,576***	***73%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

ADMINISTRATION SUMMARY

	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Program Revenue				
Service Fees	$ -	$ -	$ -	
Total Program Revenue	*$ -*	*$ -*	0	
General Revenues				
Interest revenue	1,604	2,000	$ 396	80%
Other income	2,935	9,000	$ 6,065	33%
Total General Revenues	*$ 4,539*	*$ 11,000*	*$ 6,461*	*41%*
Total Revenues	***$ 4,539***	***$ 11,000***	***$ 6,461***	***41%***

DONNER SUMMIT PUBLIC UTILITY DISTRICT

FISCAL YEAR 2023/2024 BUDGET TO ACTUAL
January 31, 2024

ADMINISTRATION SUMMARY

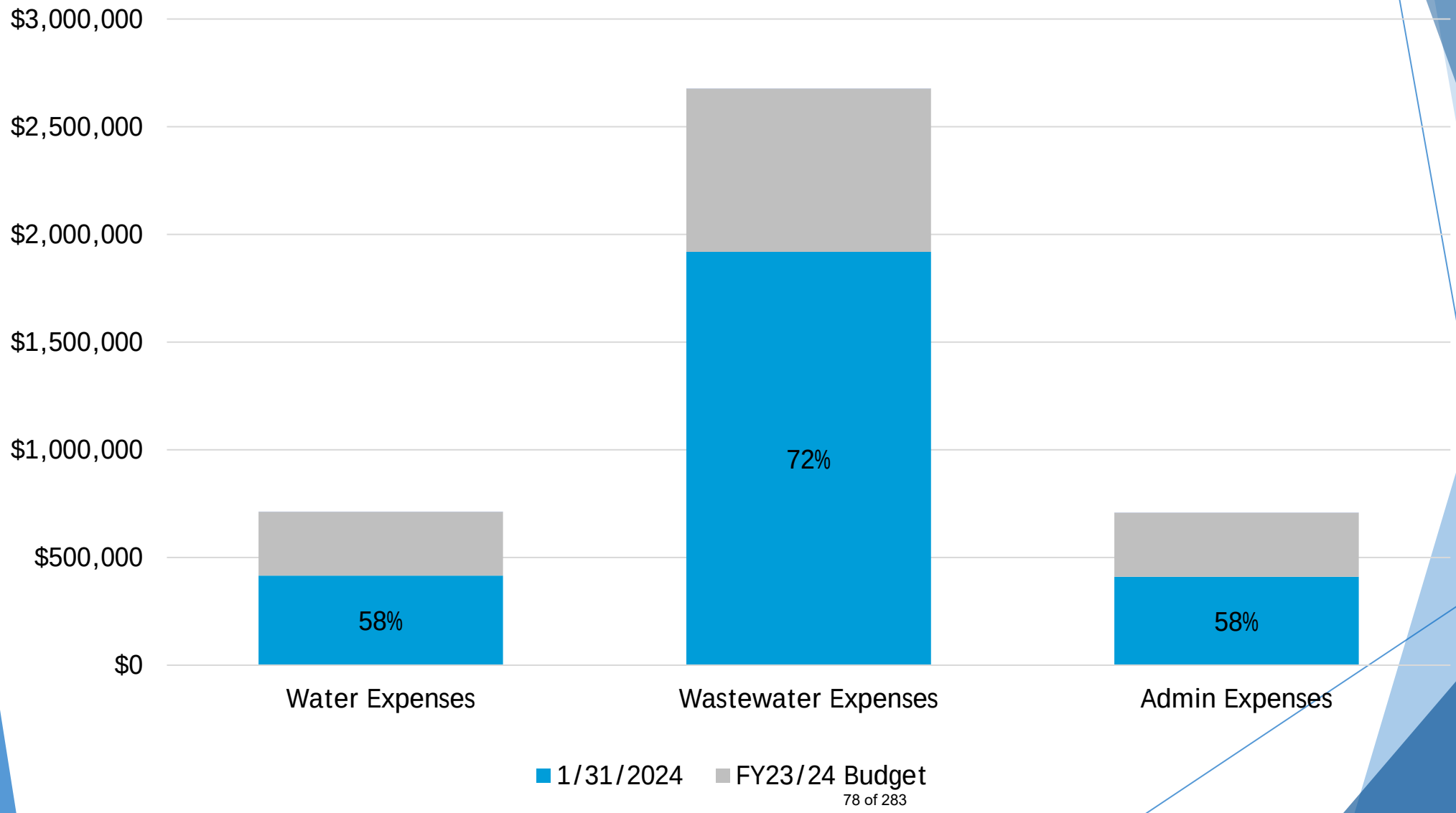
	Actual 1/31/2024	FY23-24 Budget	Remaining Budget	Percent Complete
Expenses				
Salaries	$ 175,354	$ 287,755	$ 112,402	61%
Overtime	$ -	$ 3,522	$ 3,522	0%
Medical/Dental/Life Insurance	$ 38,255	$ 72,753	$ 34,498	53%
Long Term Disability	$ 2,193	$ 3,655	$ 1,462	60%
Retirement	$ -	$ 27,926	$ 27,926	0%
Clothing	$ -	$ 400	$ 400	0%
Payroll Tax	$ 12,652	$ 24,030	$ 11,378	53%
W/C Insurance	$ 1,307	$ 1,905	$ 598	69%
Salaries & Benefits	*$ 229,760*	*$ 421,946*	*$ 192,186*	*54%*
Board Expense	$ 42,898	72,245	$ 29,347	59%
Board Expense	*$ 42,898*	*$ 72,245*	*$ 29,347*	*59%*
Professional fees	$ 80,818	111,600	$ 30,782	72%
Dues and subscriptions	$ 8,671	11,400	$ 2,729	76%
Fees, permits, certifications, leases	$ 12,655	13,240	$ 585	96%
Training, education, travel	$ 1,100	3,000	$ 1,900	37%
Insurance	$ 7,051	11,411	$ 4,360	62%
Office supplies and miscellaneous	$ 4,576	9,000	$ 4,424	51%
Utilities, communications, telemetry	$ 20,030	34,871	$ 14,841	57%
Chemicals and lab supplies	$ -	-	$ -	
Laboratory testing	$ -	-	$ -	
Equipment maintenance and repair	$ -	-	$ -	
Small equipment and rental	$ 282	-	$ (282)	
Sludge removal	$ -	-	$ -	
Operating supplies	$ 2,017	2,080	$ 63	97%
Vehicle maintenance, repair, fuel	$ -	-	$ -	
Facility maintenance and repair	$ 1,390	10,280	$ 8,890	14%
Operating Expenses	*$ 138,590*	*$ 206,882*	*$ 68,292*	*67%*
			$ -	
Debt Service	*$ -*	*$ -*	$ -	
Capital Equipment	$ -	$ 7,500	$ 7,500	0%
Capital Projects	$ -	-	$ -	
Total Expenses	***$ 411,248***	***$ 708,573***	***$ 297,325***	***58%***

JANUARY 31, 2024
FY2023-2024
BUDGET COMPARISON

Steven Palmer, General Manager
Donner Summit Public Utility District

March 26, 2024

Budget to Actual

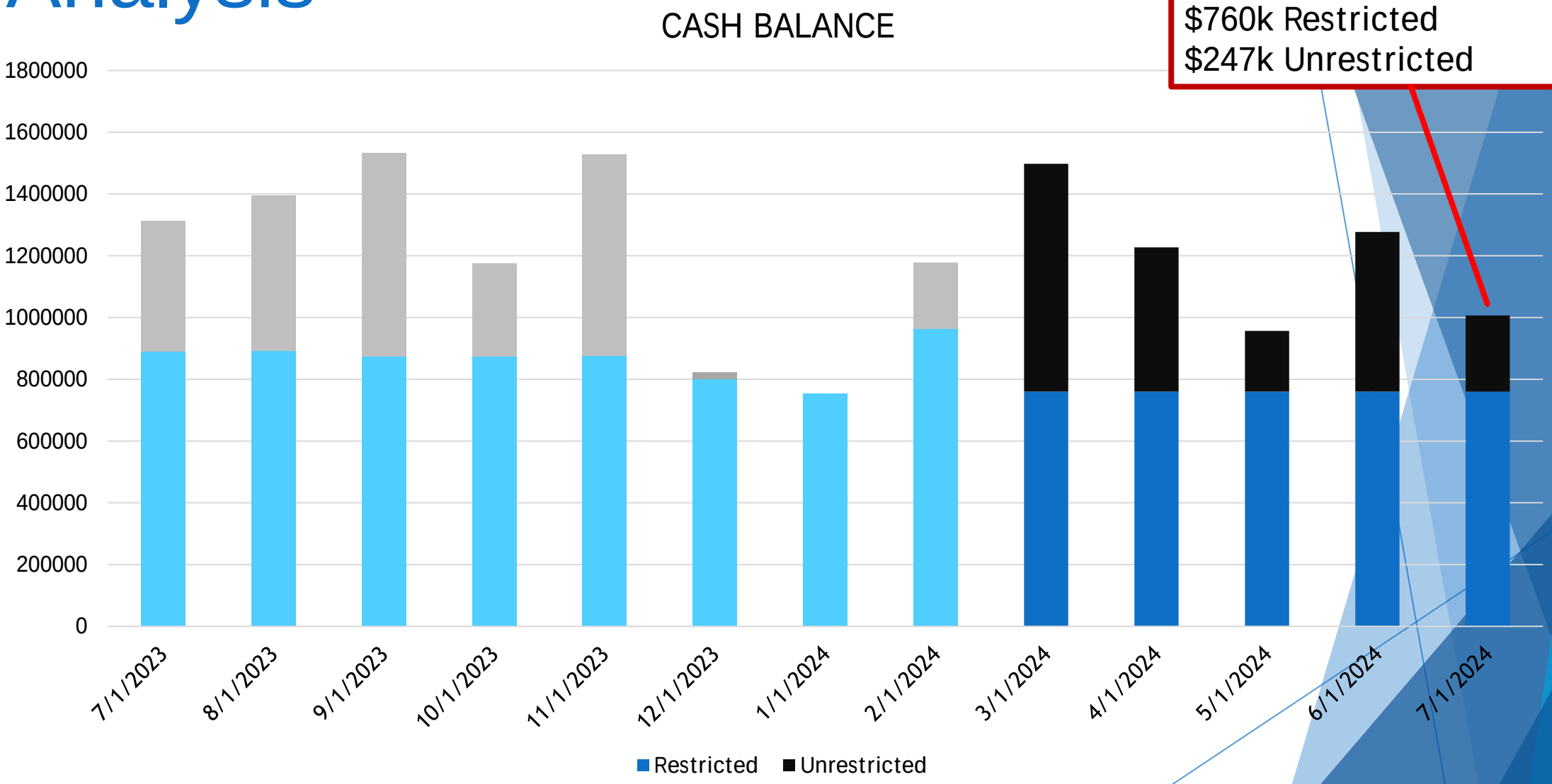


Analysis

Expenses

- Wastewater expenses of 72% budget exceeds expectations for this point in the fiscal year
  - Caused by timing of wastewater treatment plant loan payment
  - Wastewater expenses drop to 60% of budget after adjusting for timing of loan by spreading payment over all 12 months
- Overtime is also running slightly higher than projected, but not enough to require a budget increase at this time.

Analysis


CASH BALANCE
PROJECTED 6/30/2024
$760k Restricted
$247k Unrestricted
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
7/1/2023
8/1/2023
9/1/2023
10/1/2023
11/1/2023
12/1/2023
1/1/2024
2/1/2024
3/1/2024
4/1/2024
5/1/2024
6/1/2024
7/1/2024
Restricted
Unrestricted

Agenda Item: 8A

March 26, 2024
Agenda Item: 8A

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: Adopt a Resolution to Form Community Facilities District Number 2024-1, a Resolution Determining Necessity to Incur Bonded Indebtedness for Public Facilities in Community Facilities District Number 2024-1, a Resolution Calling a Special Election for Community Facilities District 2024-1, and a Resolution Declaring Intent to Reimburse from Tax-Exempt Obligations for the Sugar Bowl West and East Villages Sewer Project

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***RE*COMMENDATION**

Adopt a resolution to form a community facilities district and levy a special tax in Community Facilities District 2024-1 (Sewer Extension) to finance the acquisition and construction of certain public facilities in and for such community facilities district, adopt a resolution determining the necessity to incur bonded indebtedness to finance the acquisition and construction of certain public facilities in and for Community Facilities District 2024-1 (Sewer Extension), adopt a resolution calling a special election for Community Facilities District 2024-1 (Sewer Extension), and adopt a resolution declaring intent to reimburse from tax-exempt obligations for the Sugar Bowl Sewer Extension Project.

BACKGROUND

Donner Summit Public Utility District (DSPUD) has been working together with Sugar Bowl for several years regarding extending sewer lines in the Sugar Bowl West and East Villages. The 2009 Placer Local Agency Formation Commission (LAFCO) approval of the subdivisions and annexation required that the homes in the East and West Villages connect to DSPUD sewer within 10 years of annexation. There are 42 single family homes and three (3) vacant lots which could connect in the future if sewer main is constructed adjacent to those parcels.

DSPUD is not responsible for the cost to install sewer to these parcels, so a community facilities district (CFD) is being pursued to provide funding for the construction of the sewer. The CFD will levy a special tax secured by recording a continuing lien against the parcels within the CFD and incur bonded indebtedness to finance the cost of the authorized facilities. The bonds will be secured by the CFD special tax. The Mello-Roos Community Facilities Act of 1982 provides the authority and process for the formation of the CFD and incurring bonded indebtedness.

Community Facilities District Formation

On February 20, 2024 the Board of Directors adopted two resolutions: a resolution of intention to form the CFD (CFD ROI), and a resolution of intention to incur bonded indebtedness to finance the acquisition and construction of certain public facilities in and for the proposed CFD (Bond ROI). The CFD ROI defines the name and boundary of the CFD, describes the rate and method of apportionment of the special tax to be levied, directs the General Manager to prepare a CFD report that describes and estimates the cost of the public facilities to be acquired and constructed

in the CFD, and set the time and place for the public hearing as 6:00pm on March 26, 2024. The public hearing is held to allow public comment regarding the public interest, convenience, and necessity of the CFD, the special tax levy, and the bonded indebtedness.

If the owners of one-half or more of the area of the land in the CFD file written protests in advance of the public hearing, then no further proceedings to create the CFD or levy the special tax can be taken for a period of one year. If there are insufficient written protests, then the Board may adopt a resolution of formation establishing the CFD, a resolution declaring the necessity of bonded indebtedness, and a resolution calling a special election for the CFD. These resolutions will direct DSPUD staff to submit the levy of special tax and the proposed bonded indebtedness to the owners of property within the CFD for an election. The elections may be conducted on the same ballot and must be held between 90- and 180-days following adoption of the resolution of formation. After the canvass of the election returns, the Board may levy the special tax in the CFD and incur bonded indebtedness if two-thirds of the votes cast are in favor of the special tax.

DISCUSSION

The proposed name for the CFD is Community Facilities District 2024-1 (Sewer Extension). The DSPUD General Manager worked with the CFD consultant, Goodwin Consulting Group (Goodwin), to prepare the boundary map for the proposed CFD which is included as Attachment 1. Only parcels within the boundary can be taxed. Goodwin also prepared the required rate and method of apportionment (RMA) include as Attachment 2.

Legal counsel for the CFD and bonded indebtedness, Jones Hall, provided the resolutions included as Attachments 3, 4, 5, and 6. Resolution 2024-04, the Resolution of Formation, designates the name of the CFD, identifies the boundaries of the CFD, describes the facilities to be acquired and financed, and designates the RMA for the special tax to be imposed to pay for the costs of the public facilities. The Special Tax Formula in the RMA is the roadmap as to the amount of taxes proposed to be levied against parcels in the CFD. The taxes will become the security for bonds of the CFD; the bonds are not an obligation of DSPUD and are payable only from the collected special taxes. The special tax is payable by the owner of the property in the CFD in the same manner property taxes are payable.

Resolution 2024-05 declaring the necessity of the bonded indebtedness states that bonds are necessary for the purpose of acquiring and constructing the public facilities. Resolution 2024-05 declares the intention of DSPUD to provide for the issuance of bonds in an amount not to exceed $11,100,000 to finance the authorized improvements of the CFD, although a lesser amount of bonds is anticipated to be issued.

Resolution 2024-06 calls for an election for the property owners within the CFD to vote on the formation of the CFD, the levy of the special tax, and the bonded indebtedness.

Resolution 2024-07 declares that DSPUD intends to reimburse expenditures for the capital improvements from the proceeds of the tax-exempt obligations, ie. special tax and bonds. This resolution provides the legally required declaration that DSPUD intends to reimburse for expenditures made for the Sugar Bowl West and East Villages Sewer Project.

At today's public hearing, the DSPUD Board will hear a presentation on the proposed CFD and bonding to fund the authorized facilities. Following the presentation, the Board will hear any protests against the establishment of the district, the extent of the district, or the furnishing of specified types of public facilities within the district and the issuance of bonds orally or in writing. Any protests pertaining to the regularity or sufficiency of the proceedings shall be made in writing

and shall clearly set forth the irregularities and defects to which objection is made. All written protests shall be filed with DSPUD on or before the time fixed for the hearing. DSPUD Board may waive any irregularities in the form or content of any written protest and at the hearing may correct minor defects in the proceedings. Written protests may be withdrawn in writing at any time before the conclusion of the hearing. Objections of the non-owner public will be heard but are not determinative to the formation process. If DSPUD Board determines at the conclusion of the hearings to proceed with the establishment of the CFD, the Board may adopt the resolutions presented and proceed with the election to vote on the tax and bonded indebtedness.
The ballots for the election will be prepared and sent to the owners of parcels within the CFD by the District's consultant, Goodwin. The ballots may include an impartial analysis, arguments for and against, and rebuttal arguments. The ballots must be received at the District office by end of day on June 25, 2024. Once the ballots are received, they will be tabulated by the General Manager and the results will be presented to the Board at the next regular Board meeting for certification. If at least two-thirds of the votes cast are in favor of the measures, then the Board may approve the tax levy and bonds.

FISCAL IMPACT

The CFD formation work is being funded by a deposit from Sugar Bowl Corporation and was therefore not included in the Fiscal Year 2023/2024 budget. As described in the cost sharing agreement, Sugar Bowl Corporation will get reimbursed for these expenses from the financing district and not from DSPUD funds.

Costs related to implementing bonded indebtedness are paid to Goodwin and Jones Hall out of bond proceeds and not from DSPUD funds.

The CFD and bonded indebtedness are necessary to fund and construct the sewer extension project.

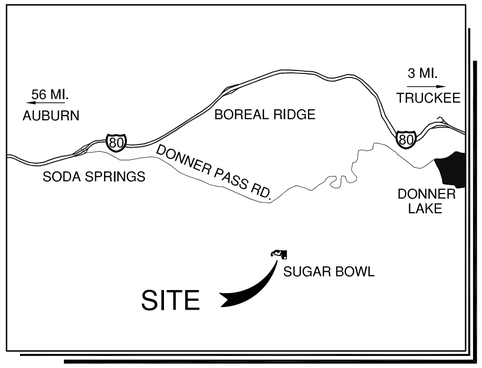
CEQA ASSESSMENT

The Initial Study/MND was approved by the Board on October 17, 2023. Mitigation measures are incorporated into the project plans and specifications.

ATTACHMENTS

1. Boundary Map
2. Rate and Method of Apportionment
3. Resolution to Form Community Facilities District Number 2024-1
4. Resolution Declaring the Necessity of Bonded Indebtedness for Public Facilities in Community Facilities District Number 2024-1
5. Resolution Calling Special Election for Community Facilities District 2024-1
6. Resolution Declaring Intent to Reimburse from Tax-Exempt Obligations

BOOK _____OF COMMUNITY FACILITIES DISTRICTS, PAGE _____



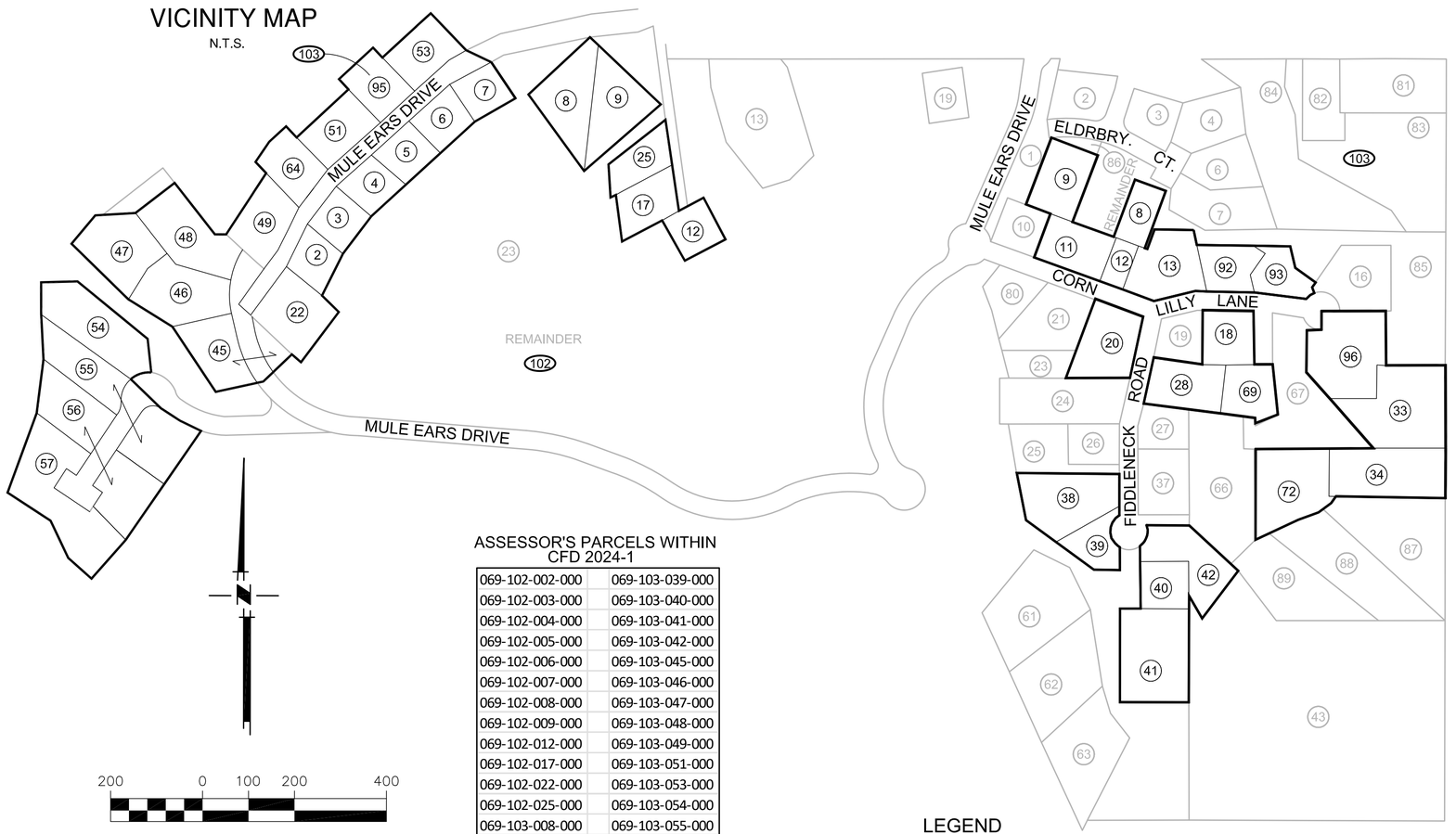
PROPOSED BOUNDARIES OF

DONNER SUMMIT PUBLIC UTILITY DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2024-1 (SEWER EXTENSION)

PLACER COUNTY, STATE OF CALIFORNIA

VICINITY MAP

N.T.S.



ASSESSOR'S PARCELS WITHIN CFD 2024-1

069-102-002-000	069-103-039-000
069-102-003-000	069-103-040-000
069-102-004-000	069-103-041-000
069-102-005-000	069-103-042-000
069-102-006-000	069-103-045-000
069-102-007-000	069-103-046-000
069-102-008-000	069-103-047-000
069-102-009-000	069-103-048-000
069-102-012-000	069-103-049-000
069-102-017-000	069-103-051-000
069-102-022-000	069-103-053-000
069-102-025-000	069-103-054-000
069-103-008-000	069-103-055-000
069-103-009-000	069-103-056-000
069-103-011-000	069-103-057-000
069-103-012-000	069-103-064-000
069-103-013-000	069-103-069-000
069-103-018-000	069-103-072-000
069-103-020-000	069-103-092-000
069-103-028-000	069-103-093-000
069-103-033-000	069-103-095-000
069-103-034-000	069-103-096-000
069-103-038-000	

LEGEND

(103)	ASSESSOR'S PAGE NUMBER
(56)	ASSESSOR'S PARCEL NUMBER (MAP INDEX)
069-103-056-000	ASSESSOR'S PARCEL NUMBER
———	ASSESSOR'S PARCEL LINE
———	CFD 2024-1 BOUNDARIES

NOTE:

REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE COUNTY OF PLACER FOR THE DETAILED DESCRIPTION OF THE LINES AND DIMENSIONS OF ANY PARCELS SHOWN HEREON.

SECRETARIE'S MAP FILING STATEMENT

FILED IN THE OFFICE OF THE SECRETARY OF THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT, PLACER COUNTY, STATE OF CALIFORNIA , THIS_____DAY OF _____ 2024.

_____
DAWN PARKHURST
SECRETARY OF THE BOARD OF DIRECTORS
DONNER SUMMIT PUBLIC UTILITY DISTRICT

SECRETARIE'S MAP CERTIFICATE

I HEREBY CERTIFY THAT THE WITHIN MAP SHOWING PROPOSED BOUNDARIES OF COMMUNITY FACILITES DISTRICT NO. 2024-1 (SEWER EXTENSION), PLACER COUNTY, STATE OF CALIFORNIA, WAS APPROVED BY THE BOARD OF DIRECTORS OF DONNER SUMMIT PUBLIC UTILITY DISTRICT AT A MEETING THEREOF, HELD ON THE _____DAY OF _____, 2024, BY ITS RESOLUTION NO. _____.

_____
DAWN PARKHURST
SECRETARY OF THE BOARD OF DIRECTORS
DONNER SUMMIT PUBLIC UTILITY DISTRICT

RECORDER'S STATEMENT

FILED THIS _____DAY OF _____, 20_____ AT THE HOUR OF _____ O'CLOCK_____M, IN BOOK _____ OF MAPS OF COMMUNITY FACILITIES DISTRICTS AT PAGE _____IN THE OFFICE OF THE COUNTY RECORDER OF THE COUNTY OF PLACER, STATE OF CALIFORNIA.

FEE_____

FILE NO._____

RYAN RONCO
PLACER COUNTY RECORDER

_____
DEPUTY

GCG
GOODWIN CONSULTING GROUP

SHEET 1 OF 1

DONNER SUMMIT PUBLIC UTILITY DISTRICT
COMMUNITY FACILITIES DISTRICT NO. 2024-1
(SEWER EXTENSION)

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

A Special Tax applicable to each Assessor's Parcel in the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension) shall be levied and collected according to the tax liability determined by the Board through the application of the appropriate amount or rate for Taxable Property, as described below. All property in the CFD, unless exempted by law or by the provisions of Section G below, shall be taxed for the purposes, to the extent, and in the manner herein provided, including property subsequently annexed to the CFD unless a separate Rate and Method of Apportionment is adopted for the annexation area.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Acre" or **"Acreage"** means the land area of an Assessor's Parcel as shown on an Assessor's Parcel Map, or if the land area is not shown on an Assessor's Parcel Map, the land area shown on the applicable final map or other parcel map recorded at the County Recorder's Office.

"Act" means the Mello-Roos Community Facilities Act of 1982, as amended, being Chapter 2.5 (commencing with Section 53311), Part 1, Division 2, of Title 5 of the Government Code of the State of California.

"Administrative Expenses" means any or all of the following: the fees and expenses of any fiscal agent or trustee (including any fees or expenses of its counsel) employed in connection with any Bonds, and the expenses of the District in carrying out its duties with respect to the CFD and the Bonds, including, but not limited to, the levy and collection of Special Taxes, the fees and expenses of its counsel, charges levied by the County in connection with the levy and collection of Special Taxes, costs related to property owner inquiries regarding the Special Tax, costs associated with appeals or requests for interpretation associated with the Special Tax and this RMA, amounts needed to pay rebate to the federal government with respect to Bonds, costs associated with complying with continuing disclosure requirements for the District and any major property owners or other obligated parties, costs associated with foreclosure and collection of delinquent Special Taxes, and all other costs and expenses of the District and the County in any way related to the establishment or administration of the CFD.

"Administrator" shall mean the person or firm designated by the District to administer the Special Tax according to this RMA.

"Assessor's Parcel" or **"Parcel"** means a lot or parcel shown on an Assessor's Parcel Map with an assigned Assessor's Parcel number.

"Assessor's Parcel Map" means an official map of the County Assessor designating Parcels by Assessor's Parcel number.

"Authorized Facilities" means the public facilities authorized to be financed, in whole or in part, by the CFD.

"Board" means the Board of Directors of the District.

"Bonds" means bonds or other debt (as defined in the Act), whether in one or more series, secured by the Special Tax and issued or assumed by the CFD to fund Authorized Facilities.

"Capitalized Interest" means funds in any capitalized interest account available to pay debt service on Bonds.

"CFD" means the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension).

"CFD Formation" means the date on which the Resolution of Formation to form the CFD was adopted by the Board.

"County" means the County of Placer.

"District" means the Donner Summit Public Utility District.

"Fiscal Year" means the period starting July 1 and ending on the following June 30.

"Improvement Fund" means the account (regardless of its name) identified in the Indenture to hold funds that are available for expenditure to acquire or construct Authorized Facilities or to pay eligible impact fees.

"Indenture" means the bond indenture, fiscal agent agreement, trust agreement, resolution or other instrument pursuant to which Bonds are issued, as modified, amended, and/or supplemented from time to time, and any instrument replacing or supplementing the same.

"**Maximum Special Tax"** means the greatest amount of Special Tax that can be levied on a Parcel in any Fiscal Year, as determined in accordance with Sections C and D below.

"Maximum Special Tax Revenues" means the aggregate amount that could be levied in any Fiscal Year if the Maximum Special Tax was levied against all Parcels of Taxable Property within the CFD. The Maximum Special Tax Revenues at the time of CFD Formation are shown in Attachment 1 hereto and may be adjusted due to prepayments in this CFD.

"Original Parcel" means an Assessor's Parcel included in the CFD at the time of CFD Formation, as identified in Attachment 2 hereto. A Successor Parcel that is further subdivided shall also be considered an Original Parcel for the purposes of determining the Maximum Special Taxes pursuant to Section C.

"Proportionately" means the ratio of the actual Special Tax levied in any Fiscal Year to the Maximum Special Tax authorized to be levied in that Fiscal Year is equal for all parcels of Taxable Property.

"Public Property" means any property within the boundaries of the CFD that is owned by the District, County, federal government, State of California, or other public agency.

"RMA" means this Rate and Method of Apportionment of Special Tax.

"Successor Parcel" means a Parcel of Taxable Property created from subdivision or reconfiguration of an Original Parcel.

"Special Tax" means a special tax levied in any Fiscal Year to pay the Special Tax Requirement.

"Special Tax Requirement" means the amount necessary in any Fiscal Year to: (i) pay principal and interest on Bonds that are due in the calendar year that begins in such Fiscal Year after application of any available Capitalized Interest; (ii) pay periodic costs on the Bonds, including but not limited to, credit enhancement, liquidity support, and rebate payments on the Bonds; (iii) replenish reserve funds created for the Bonds under the Indenture to the extent such replenishment has not been included in the computation of the Special Tax Requirement in a previous Fiscal Year; (iv) cure any delinquencies in the payment of principal or interest on Bonds which have occurred in the prior Fiscal Year; (v) pay Administrative Expenses; and (vi) pay directly for Authorized Facilities. The amounts referred to in clauses (i) and (ii) of the definition of Special Tax Requirement may be reduced in any Fiscal Year by: (a) interest earnings on or surplus balances in funds and accounts for the Bonds to the extent that such earnings or balances are available to apply against such costs pursuant to the Indenture; (b) in the sole and absolute discretion of the District, proceeds received by the CFD from the collection of penalties associated with delinquent Special Taxes; and (c) any other revenues available to pay such costs, each as determined in the sole discretion of the District.

"Tax Zone" means a geographic area within which a particular Maximum Special Tax rate may be levied pursuant to this RMA. Attachment 2 identifies the two Tax Zones in the CFD.

"Taxable Property" means all of the Parcels within the boundaries of the CFD that are not exempt from the Special Tax pursuant to law or Section G below.

"Taxable Public Property" means any Parcel of Public Property that had in its entirety been a Parcel of Taxable Property in a prior Fiscal Year and, as such, had been subject to the levy of Special Taxes when the public agency took ownership of the Parcel, and which will continue to be Taxable Property for purposes of this RMA.

B. DATA FOR ADMINISTRATION OF THE SPECIAL TAX

Each Fiscal Year, the Administrator shall: (i) identify the current Assessor's Parcel numbers for all Parcels of Taxable Property within the CFD; and (ii) identify the Special Tax Requirement for the Fiscal Year. If, in any Fiscal Year, it is determined that: (i) a parcel map for property in the

CFD was recorded after January 1 of the prior Fiscal Year (or any other date after which the Assessor will not incorporate the newly-created parcels into the then current tax roll), and (ii) because of the date the parcel map was recorded, the Assessor does not yet recognize the new parcels created by the parcel map, then the Administrator shall calculate the Special Taxes separately for each Successor Parcel and levy the sum of these amounts on the Original Parcel that was subdivided by recordation of the parcel map

C. MAXIMUM SPECIAL TAX

The Maximum Special Tax for each Original Parcel in the CFD for Fiscal Year 2024-25 is shown in Attachment 1 of this RMA. On July 1, 2025, and on each July 1 thereafter, all figures shown in Attachment 1 shall be increased by an amount equal to two percent (2%) of the amount in effect for the prior Fiscal Year.

D. CHANGES TO THE MAXIMUM SPECIAL TAX

1. Subdivision of Original Parcels

If an Original Parcel is subdivided or reconfigured, the Administrator shall assign the Maximum Special Taxes applicable to the Original Parcel to the Successor Parcels by applying the following steps:

Step 1. Determine the aggregate Acreage of Taxable Property within all Successor Parcels created from subdivision or reconfiguration of the Original Parcel.

Step 2. Divide the Maximum Special Tax assigned to the Original Parcel by the Acreage of Taxable Property determined in Step 1 to determine a Maximum Special Tax per acre.

Step 3. Multiply the Maximum Special Tax per acre determined in Step 2 by the Acreage of Taxable Property within each Successor Parcel to determine the Maximum Special Tax for each Successor Parcel, which amount shall escalate in the following Fiscal Year and each Fiscal Year thereafter by 2.0% of the amount in effect in the prior Fiscal Year.

Once a Successor Parcel is created, if such Successor Parcel is further subdivided or reconfigured, the Parcel will be considered an Original Parcel and Steps 1 through 3 above shall be applied to determine the Maximum Special Taxes for the Parcels created from the subdivision or reconfiguration. If, at any time, an Original Parcel or a Successor Parcel is assigned a different Assessor's Parcel number, the Maximum Special Taxes assigned to that Parcel shall continue to apply. Notwithstanding the foregoing, a lot line adjustment that does not result in a significant change to the acreage of any Successor Parcel, as determined by the Administrator, will not require a reallocation of the Maximum Special Taxes assigned to the Parcel(s) affected by the lot line adjustment. Under no circumstance shall the combined Maximum Special Taxes assigned to Successor Parcels upon subdivision of an Original Parcel be less than the Maximum Special Taxes that applied to the Original Parcel prior to the subdivision.

2. Partial Prepayments

If a Parcel makes a partial prepayment pursuant to Section H below, the Administrator shall recalculate the Maximum Special Tax for the Parcel pursuant to Section H.2.

3. Reduction in Maximum Special Tax

Except in the case of a partial prepayment, the Maximum Special Tax assigned to a Parcel of Taxable Property shall never be reduced regardless of changes in ownership, configuration, land use, demolition, or destruction of buildings on the Parcel.

E. METHOD OF LEVY OF THE SPECIAL TAX

Each Fiscal Year, the Administrator shall determine the Special Tax Requirement for the Fiscal Year, and the Special Tax shall be levied Proportionately on each Parcel of Taxable Property in the CFD up to 100% of the Maximum Special Tax for each Parcel for such Fiscal Year.

F. MANNER OF COLLECTION OF SPECIAL TAX

The Special Tax shall be collected in the same manner and at the same time as ordinary ad valorem property taxes, provided, however, that prepayments are permitted as set forth in Section H below and provided further that the District may directly bill the Special Tax, may collect Special Taxes at a different time or in a different manner, and may collect delinquent Special Taxes through foreclosure or other available methods.

The Special Tax shall be levied and collected until principal and interest on Bonds have been repaid. However, in no event shall Special Taxes be levied after Fiscal Year 2059-60. Under no circumstances may the Special Tax on a Parcel be increased in any Fiscal Year as a consequence of delinquency or default in payment of the Special Tax levied on another Parcel or Parcels by more than ten percent (10%) above the amount that would have been levied in that Fiscal Year had there never been any such delinquencies or defaults.

G. EXEMPTIONS

Notwithstanding any other provision of this RMA, no Special Tax shall be levied in any Fiscal Year on the following:

i. Public Property, except Taxable Public Property.

ii. Parcels that have fully prepaid the Special Tax obligation assigned to the Parcel pursuant to the formula set forth in Section H below.

H. PREPAYMENTS

The following definitions apply to this Section H:

"Outstanding Bonds" means all Previously Issued Bonds which remain outstanding, with the following exception: if a Special Tax has been levied against, or already paid by, an Assessor's Parcel making a prepayment, and a portion of the Special Tax will be used to pay a portion of the next principal payment on the Bonds that remain outstanding (as determined by the Administrator), that next principal payment shall be subtracted from the total Bond principal that remains outstanding, and the difference shall be used as the amount of Outstanding Bonds for purposes of this prepayment formula.

"Previously Issued Bonds" means all Bonds that have been issued prior to the date of prepayment.

"Public Facilities Requirement" means either $7,407,356 in 2024 dollars, which shall increase on January 1, 2025, and on each January 1 thereafter by two percent (2%) of the amount in effect in the prior year, or such other number as shall be determined by the District as sufficient to fund Authorized Facilities.

"Remaining Facilities Costs" means the Public Facilities Requirement minus public facility costs funded by Previously Issued Bonds, developer equity, and any other source of funding.

1. Full Prepayment

The Special Tax obligation applicable to a Parcel in the CFD may be prepaid and the obligation of the Parcel to pay the Special Tax permanently satisfied as described herein, provided that a prepayment may be made only if there are no delinquent Special Taxes with respect to such Parcel at the time of prepayment. An owner of a Parcel intending to prepay the Special Tax obligation shall provide the District with written notice of intent to prepay. Within 30 days of receipt of such written notice, the District or its designee shall notify such owner of the prepayment amount for such Parcel. Prepayment must be made not less than 60 days prior to any redemption date for Bonds to be redeemed with the proceeds of such prepaid Special Taxes. The Prepayment Amount shall be calculated as follows (capitalized terms as defined below):

	Bond Redemption Amount
plus	Remaining Facilities Amount
plus	Redemption Premium
plus	Defeasance Requirement
plus	Administrative Fees and Expenses
less	Reserve Fund Credit
equals	Prepayment Amount

As of the proposed date of prepayment, the Prepayment Amount shall be determined by application of the following steps:

Step 1. Compute the amount that could be collected from the Parcel prepaying the Special Tax in the Fiscal Year in which prepayment would be received by the District by applying the Maximum Special Tax for the Parcel.

Step 2. Divide the Maximum Special Tax computed pursuant to Step 1 for such Parcel by the total Maximum Special Tax Revenues for all property in the CFD.

Step 3. Multiply the quotient computed pursuant to Step 2 by the Outstanding Bonds to compute the amount of Outstanding Bonds to be retired and prepaid (*the "**Bond Redemption Amount"***).

Step 4. Compute the current Remaining Facilities Costs (if any).

Step 5. Multiply the quotient computed pursuant to Step 2 by the amount determined pursuant to Step 4 to compute the amount of Remaining Facilities Costs to be prepaid (*the "**Remaining Facilities Amount"***).

Step 6. Multiply the Bond Redemption Amount computed pursuant to Step 3 by the applicable redemption premium, if any, on the Outstanding Bonds to be redeemed (*the "**Redemption Premium"***).

Step 7. Compute the amount needed to pay interest on the Bond Redemption Amount starting with the first Bond interest payment date after which the prepayment will be received until the earliest redemption date for the Outstanding Bonds. However, if Bonds are callable at the first interest payment date after the prepayment has been received, Steps 7, 8, and 9 of this prepayment formula will not apply.

Step 8: Compute the amount of interest the District reasonably expects to derive from reinvestment of the Bond Redemption Amount plus the Redemption Premium from the first Bond interest payment date after which the prepayment has been received until the redemption date for the Outstanding Bonds.

Step 9: Subtract the amount computed pursuant to Step 8 from the amount computed pursuant to Step 7 (the ***"Defeasance Requirement"***).

Step 10. The administrative fees and expenses associated with the prepayment will be determined by the Administrator and include the costs of computing the prepayment, redeeming Bonds, and recording any notices to evidence the prepayment and the redemption (the "***Administrative Fees and Expenses"***).

Step 11. If and to the extent so provided in the Bond Indenture, a reserve fund credit shall be calculated as a reduction in the applicable reserve fund for the

Outstanding Bonds to be redeemed pursuant to the prepayment (the "***Reserve Fund Credit***").

Step 12. The Special Tax prepayment is equal to the sum of the amounts computed pursuant to Steps 3, 5, 6, 9, and 10, less the amount computed pursuant to Step 11 (the "***Prepayment Amount***").

Step 13. From the Prepayment Amount, the amounts computed pursuant to Steps 3, 6, and 9 shall be deposited into the appropriate fund as established under the Indenture and be used to retire Outstanding Bonds or make debt service payments. The amount computed pursuant to Step 5 shall be deposited into the Improvement Fund. The amount computed pursuant to Step 10 shall be retained in the account or fund that is established to pay Administrative Expenses.

Once a full prepayment of a Parcel's Special Tax obligation has been received, a Notice of Cancellation of Special Tax Lien shall be recorded against the Parcel to reflect the discharge of the Parcel's obligation to pay the Special Tax. However, a Notice of Cancellation of Special Tax Lien shall not be recorded until all Special Taxes levied on the Parcel in the current or prior Fiscal Years have been collected.

2. Partial Prepayment

A partial prepayment may be made in an amount equal to any percentage of full prepayment desired by the party making a partial prepayment, except that the full amount of Administrative Fees and Expenses determined in Step 10 shall be included in the partial prepayment. The Maximum Special Tax that can be levied on a Parcel after a partial prepayment is made shall be equal to the portion of the Maximum Special Tax that was not prepaid. Once a partial prepayment has been received, an Amended Notice of Special Tax Lien shall be recorded against the Parcel to reflect the reduced Special Tax lien for the Parcel. However, an Amended Notice of Special Tax Lien shall not be recorded until all Special Taxes levied on the Parcel in the current or prior Fiscal Years have been collected.

I. INTERPRETATION OF RMA

Interpretations may be made by Resolution of the Board to interpret, clarify, and/or revise this RMA to correct any inconsistency, vagueness, or ambiguity as it relates to the Special Tax, method of apportionment, classification of properties, or any definition applicable to the CFD, as long as such correction does not materially affect the levy and collection of Special Taxes.

ATTACHMENT 1

Donner Summit Public Utility District
Community Facilities District No. 2024-1
(Sewer Extension)

Original Parcels and Maximum Special Taxes

Fiscal Year 2023-24 Assessor's Parcel Number	Maximum Special Tax Fiscal Year 2024-25 *
TAX ZONE 1	
069-102-002-000	$14,200
069-102-003-000	$14,200
069-102-004-000	$14,200
069-102-005-000	$14,200
069-102-006-000	$14,200
069-102-007-000	$14,200
069-102-008-000	$14,200
069-102-009-000	$14,200
069-102-012-000	$14,200
069-102-017-000	$14,200
069-102-022-000	$14,200
069-102-025-000	$14,200
069-103-045-000	$14,200
069-103-046-000	$14,200
069-103-047-000	$14,200
069-103-048-000	$14,200
069-103-049-000	$14,200
069-103-051-000	$14,200
069-103-053-000	$14,200
069-103-054-000	$14,200
069-103-055-000	$14,200
069-103-056-000	$14,200
069-103-057-000	$14,200
069-103-064-000	$14,200
069-103-095-000	$14,200

Fiscal Year 2023-24 Assessor's Parcel Number	Maximum Special Tax Fiscal Year 2024-25 *
TAX ZONE 2	
069-103-008-000	$8,900
069-103-009-000	$8,900
069-103-011-000	$8,900
069-103-012-000	$8,900
069-103-013-000	$8,900
069-103-018-000	$8,900
069-103-020-000	$8,900
069-103-028-000	$8,900
069-103-033-000	$8,900
069-103-034-000	$8,900
069-103-038-000	$8,900
069-103-039-000	$8,900
069-103-040-000	$8,900
069-103-041-000	$8,900
069-103-042-000	$8,900
069-103-069-000	$8,900
069-103-072-000	$8,900
069-103-092-000	$8,900
069-103-093-000	$8,900
069-103-096-000	$8,900

Maximum Special Tax Revenues (FY 2024-25 $)* **$533,000**

* On July 1, 2025, and on each July 1 thereafter, the Maximum Special Taxes shown above shall be increased by an amount equal to two percent (2%) of the amount in effect for the prior Fiscal Year.

ATTACHMENT 2

Donner Summit Public Utility District
Community Facilities District No. 2024-1
(Sewer Extension)

Identification of Tax Zones

ATTACHMENT 2

ORIGINAL PARCELS IN CFD

DONNER SUMMIT PUBLIC UTILIY DISTRICT
COMMUNITY FACILITIES DISTRICT NO. 2024-1
(SEWER EXTENSION)

LEGEND

- (56) ASSESSOR'S PARCEL NUMBER (MAP INDEX)
- ASSESSOR'S PARCEL LINE
- CFD 2024-1 BOUNDARIES
- TAX ZONE 1
- TAX ZONE 2

GCG
GOODWIN CONSULTING GROUP

RESOLUTION NO. 2024-04

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT TO FORM THE DONNER SUMMIT PUBLIC UTILITY DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2024-1 (SEWER EXTENSION) TO FINANCE THE ACQUISITION AND CONSTRUCTION OF CERTAIN PUBLIC FACILITIES IN AND FOR SUCH COMMUNITY FACILITIES DISTRICT

WHEREAS, on February 20, 2024, the Board of Directors (the "Board") of the Donner Summit Public Utility District ("District") adopted its Resolution No. 2024-02 (the "Resolution of Intention"), stating its intention to form "Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension)" (the "CFD"), pursuant to the Mello-Roos Community Facilities Act of 1982, as amended, Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing with Section 53311, of the California Government Code (the "Act"); and

WHEREAS, the Resolution of Intention, describing a map of the proposed boundaries of the CFD and stating the facilities to be provided, the cost of providing such facilities, and the rate and method of apportionment of the special tax to be levied within the CFD to pay the principal and interest on bonds proposed to be issued with respect to the CFD and other authorized costs, is on file with the Board Secretary and the provisions thereof are incorporated herein by this reference as if fully set forth herein; and

WHEREAS, on this date, this Board held a noticed public hearing as required by the Act and the Resolution of Intention relative to the proposed formation of the CFD; and

WHEREAS, at the hearing all interested persons desiring to be heard on all matters pertaining to the formation of the CFD, the facilities to be provided therein and the levy of said special tax were heard and a full and fair hearing was held; and

WHEREAS, at the hearing evidence was presented to this Board on said matters before it, including a report caused to be prepared by the General Manager of the District (the "Report") as to the facilities to be provided through the CFD and the costs thereof, a copy of which is on file with the Board Secretary, and this Board at the conclusion of said hearing is fully advised in the premises; and

WHEREAS, written protests with respect to the proposed formation of the CFD, the furnishing of specified types of facilities and the rate and method of apportionment of the special taxes have not been filed with the Board Secretary by 50% or more of the registered voters residing within the territory of the CFD or property owners of one-half or more of the area of land within the CFD and not exempt from the proposed special tax; and

WHEREAS, the special tax proposed to be levied in the CFD to pay for the proposed facilities to be provided therein, as set forth in Exhibit B hereto, has not been eliminated by protest by 50% or more of the registered voters residing within the territory of the CFD or the owners of one-half or more of the area of land within the CFD and not exempt from the special tax.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. **Recitals Correct.** The foregoing recitals are true and correct.

2. **No Majority Protest**. The proposed special tax to be levied within the CFD has not been precluded by majority protest pursuant to section 53324 of the Act.

3. **Prior Proceedings Valid.** All proceedings taken by this Board in connection with the establishment of the CFD, and the levy of the special tax have been duly considered and are hereby found and determined to be valid and in conformity with the Act.

4. **Name of CFD.** The community facilities district designated "Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension)" is hereby established pursuant to the Act.

5. **Boundaries of CFD.** The boundaries of the CFD, as set forth in the map of the CFD heretofore recorded in the Placer County Recorder's Office on March 8, 2024 in Book 5 at Page 4 of Maps of Assessment and Community Facilities Districts, are hereby approved, are incorporated herein by reference and shall be the boundaries of the CFD.

6. **Description of Facilities.** The type of public facilities proposed to be financed by the CFD and pursuant to the Act shall consist of those items listed as facilities on Exhibit B hereto (the "Facilities"). The financing of the costs of Facilities may include, without limitation, the payment of principal of and interest on bonds or other indebtedness together with all direct, indirect, periodic, and/or other related costs (including, without limitation, costs of administering the CFD, levying the Special Tax and administering the bonds, and establishing and replenishing reserve funds).

7. **Special Tax.**

a. Except to the extent that funds are otherwise available to the CFD to pay for the Facilities, including the principal and interest as it becomes due on bonds issued by the District for the CFD to construct and/or acquire the Facilities, a special tax ("Special Tax") sufficient to pay the costs thereof, secured by recordation of a continuing lien against all non-exempt real property in the CFD, will be levied annually within the CFD, and collected in the same manner as ordinary *ad valorem* property taxes, or in such other manner as the Board or its designee shall determine, including direct billing of the affected property owners.

b. The proposed rate and method of apportionment of the Special Tax among the parcels of real property within the CFD, in sufficient detail to allow each landowner within the proposed CFD to estimate the maximum amount such owner will have to pay, are described in the Rate and Method of Apportionment attached hereto as Exhibit A and hereby incorporated herein (the "Rate and Method"). It is anticipated that the Special Tax will be billed as a separate line item on the regular property tax bill. However, the Board reserves the right, under Section 53340 of the Act, to utilize any method of collecting the Special Tax which it shall, from time to time, determine to be in the best interests of District, including, but not limited to, direct billing by the District to the property owners and supplemental billing.

c. The Special Tax shall be levied in the amount and for the duration set forth in the Rate and Method. Under no circumstances shall the Special Tax levied against any parcel in the CFD to be used for private residential purposes be increased as a consequence of delinquency or default by the owner of any other parcel or parcels within the CFD by more than 10%.

d. Except as may otherwise be provided by law or by the Rate and Method, the following shall be omitted from the levy of the Special Tax: (i) all lands owned by any public entity, including the United States, the State of California, the District, or any departments or political subdivisions thereof, and (ii) acreage that is the subject of an open-space easement acquired by the County, or dedicated or restricted to agricultural or conservation uses, as described in the Act.

8. **Responsible Official.** The General Manager of the Donner Summit Public Utility District, 53823 Sherritt Lane, Soda Springs, CA 95728, is the officer of the District who will be responsible for preparing annually a current roll of special tax levy obligations by assessor's parcel number and who will be responsible for estimating future special tax levies pursuant to the Act.

9. **Tax Lien.** Upon recordation of a notice of special tax lien pursuant to Section 3114.5 of the Streets and Highways Code of California, a continuing lien to secure each levy of the special tax shall attach to all nonexempt real property in the CFD and this lien shall continue in force and effect until the special tax obligation is prepaid and permanently satisfied to the extent allowed under the Rate and Method and the lien canceled in accordance with law or until collection of the tax by the District ceases.

10. **Appropriations Limit.** In accordance with the Act, the annual appropriations limit, as defined by subdivision (h) of Section 8 of Article XIII B of the California Constitution, of the CFD is hereby preliminarily established at $11,100,000, and said appropriations limit shall be submitted to the voters of the CFD as hereafter provided. The proposition establishing said annual appropriations limit shall become effective if approved by the qualified electors voting thereon and shall be adjusted in accordance with the applicable provisions of the Act.

11. **Election.** Pursuant to the provisions of the Act, the proposition of the levy of the special tax and the proposition of the establishment of the appropriations limit specified above shall be submitted to the qualified electors of the CFD at an election. The time, place and conditions of the election shall be as specified by a separate resolution of this Board.

12. **Effective Date.** This resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the Board of Directors of Donner Summit Public Utility District, this 26th day of March 2024, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

DONNER SUMMIT PUBLIC UTILITY DISTRICT

By: _____
Cathy Preis
President, Board of Directors

ATTEST:

By: _____
Dawn Parkhurst
Secretary of the Board

EXHIBIT A

RATE AND METHOD OF APPORTIONMENT

Donner Summit Public Utility District
Community Facilities District No. 2024-1
(Sewer Extension)

EXHIBIT B

LIST OF AUTHORIZED FACILITIES

Donner Summit Public Utility District
Community Facilities District No. 2024-1
(Sewer Extension)

The authorized Facilities to be funded from the levy and collection of annual special taxes shall consist of improvements to the wastewater collection system of the Donner Summit Public Utility District (DSPUD) in order to extend service to certain residential units within the boundaries of the CFD and not currently connected to the system, including but not limited to the following improvements:

- Public sewer lines throughout the Sugar Bowl East and West Villages;
- Sewer laterals form the public sewer line to the property line of residential lots;
- Approximately 4,600 linear feet of public sewer lines.

Incidental Costs. In addition, costs eligible to be financed by the CFD shall include all costs and expenses incidental to the above and authorized by the Mello-Roos Community Facilities Act of 1982 determined by DSPUD to be associated with the authorized Facilities, the formation and ongoing administration of the CFD, the election, bonding, the levy and collection of taxes, and all other costs as permitted by the Act, and any other costs incurred to carry out the authorized purposes of the CFD.

RESOLUTION NO. 2024-05

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT DETERMING NECESSITY TO INCUR BONDED INDEBTEDNESS FOR THE DONNER SUMMIT PUBLIC UTILITY DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2024-1 (SEWER EXTENSION)

WHEREAS, on February 20, 2024, the Board of Directors (the "Board") of the Donner Summit Public Utility District ("District") adopted its Resolution No. 2024-02 (the "Resolution of Intention"), stating its intention to form "Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension)" (the "CFD"), pursuant to the Mello-Roos Community Facilities Act of 1982, as amended, Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing with Section 53311, of the California Government Code (the "Act"); and

WHEREAS, on February 20, 2024, this Board also adopted its Resolution No. 2024-03 (the "Resolution of Intention to Incur Indebtedness") stating its intention to incur bonded indebtedness within the boundaries of the CFD in an amount not to exceed $11,100,000 for the purpose of financing the costs of certain facilities specified in the Resolution of Intention; and

WHEREAS, this Board has held a noticed public hearing as required by the Act about the determination to proceed with the formation of the CFD, the provision of certain public facilities and services by the CFD and the rate and method of apportionment of the special tax to be levied within the CFD to pay the principal and interest on the proposed bonded indebtedness in the CFD and the administrative costs of the District relative to the CFD; and

WHEREAS, subsequent to the public hearing, this Board adopted a resolution entitled "A Resolution of the Board of Directors of the Donner Summit Public Utility District to Form the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension) to Finance the Acquisition and Construction of Certain Public Facilities in and for such Community Facilities District" (the "Resolution of Formation"); and

WHEREAS, this Board has also held a noticed public hearing as required by the Act relative to the matters material to the questions set forth in the Resolution of Intention to Incur Indebtedness; and

WHEREAS, written protests with respect to the questions set forth in the Resolution of Intention to Incur Indebtedness have not been filed with the Board Secretary by 50% or more of the registered voters residing within the territory of the CFD or property owners of one-half or more of the area of land within the CFD and not exempt from the proposed special tax.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The foregoing recitals are true and correct.

2. This Board deems it necessary to incur bonded indebtedness in the maximum aggregate principal amount of $11,100,000 within the boundaries of the CFD for the purpose of financing the costs of all or a portion of the facilities defined in the Resolution of Formation (the "Facilities") for the property in the boundary of the CFD, including, but not limited to, the costs of issuing and selling bonds to finance all or a portion of the Facilities.

3. Bonds or other debt in the maximum amount of $11,100,000 for the CFD are hereby authorized, subject to voter approval. The bonds or other debt may be issued or incurred in one or more series and mature and bear interest at such rate or rates, payable semiannually or in such other manner, all as the Board, as the legislative body of the CFD, shall determine, at the time or times of sale of such bonds or other debt; provided, however, that the interest rate or rates shall not to exceed the maximum interest rate permitted by applicable law at the time of sale of the bonds or other debt, and each series of bonds or other debt shall have a maximum term of 40 years.

4. The proposition of incurring the bonded indebtedness herein authorized shall be submitted to the qualified electors of the CFD and shall be consolidated with elections on the proposition of levying special taxes within the CFD and the establishment of an appropriations limit for the CFD pursuant to Section 53353.5 of the Act. The time, place and further particulars and conditions of such election shall be as specified by separate resolution of this Board.

5. This Resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the Board of Directors of Donner Summit Public Utility District, this 26th day of March 2024, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

DONNER SUMMIT PUBLIC UTILITY DISTRICT

By: _____
Cathy Preis
President, Board of Directors

ATTEST:

By: _____
Dawn Parkhurst
Secretary of the Board

RESOLUTION NO. 2024-06

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT CALLING SPECIAL ELECTION FOR DONNER SUMMIT PUBLIC UTILITY DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2024-1 (SEWER EXTENSION)

WHEREAS, pursuant to the Mello-Roos Community Facilities Act of 1982, Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing with Section 53311, of the California Government Code (the "Act"), the Board of Directors (the "Board") of the Donner Summit Public Utility District (the "District") has adopted a resolution titled "A Resolution of the Board of Directors of the Donner Summit Public Utility District to Form the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension) to Finance the Acquisition and Construction of Certain Public Facilities in and for such Community Facilities District" (the "Resolution of Formation"), ordering the formation of the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension) (the "CFD"), authorizing the levy of a special tax on property within the CFD and preliminarily establishing an appropriations limit for the CFD, subject to voter approval; and

WHEREAS, this Board has also adopted a resolution titled "A Resolution of the Board of Directors of the Donner Summit Public Utility District Determining Necessity to Incur Bonded Indebtedness for the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension)" (the "Resolution Determining Necessity"), determining the necessity to incur bonded indebtedness for the CFD in the maximum aggregate principal amount of $11,100,000, upon the security of the special tax to be levied within the CFD pursuant to the Act; and

WHEREAS, pursuant to the provisions of the Resolution of Formation and the Resolution Determining Necessity, the propositions of the levy of the special tax, the establishment of the appropriations limit and the incurring of the bonded indebtedness shall be submitted to the qualified electors of the CFD as required by the provisions of the Act.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. Pursuant to Sections 53326, 53351 and 53325.7 of the Act, the issues of the levy of the special tax, the incurring of bonded indebtedness and the establishment of the appropriations limit shall be consolidated and submitted to the qualified electors (as defined below) of the CFD at an election called therefor as provided below.

2. Under the Act, the propositions described above in section 1 shall be submitted to the voters of the CFD at an election called therefor as hereinafter provided. The ballot measure to be voted upon by the voters shall be substantially in the following format:

Shall the measure to extend public sewer service to parcels within the Donner Summit Public Utility District Community Facilities District No. 2024-1 (CFD) by levying an annual special tax of up to $14,200/parcel in Tax Zone 1 and $8,900/parcel in Tax Zone 2, escalating 2% per year until Fiscal Year 2059-60, per the rate and method of apportionment of special tax for the CFD, initially raising approximately $533,000 annually, and authorizing bonds and an initial appropriations limit of $11,100,000, be adopted?	YES: ☐ NO: ☐

3. This Board hereby finds that less than 12 persons have been registered to vote within the territory of the CFD for each of the 90 days preceding the close of the public hearings heretofore conducted and concluded by this Board for the purposes of these proceedings. Accordingly, and pursuant to Section 53326 of the Act, this Board finds that, for these proceedings, the qualified electors for the CFD are the landowners within the CFD and that the vote shall be by such landowners, each having one vote per acre or portion of an acre owned.

4. This Board hereby calls a special election to consider the issues described in Section 1 above, which shall be held on Tuesday, June 25, 2024 (the "Election Day"). Pursuant the Act, the election shall be conducted by mail ballots under Section 4000 of the California Elections Code, provided, however, that for purposes of setting the date for the election, Sections 53326 and 53327 of the Act shall govern.

5. Pursuant to Section 53326 of the Act, and within three business days of the adoption of the Resolution of Formation, but in no event later than the date specified by the General Manager, as the official in charge of the election (the "Election Official") for receipt, the Board Secretary shall cause to be provided to the Election Official a certified copy of the Resolution of Formation and this Resolution Calling Special Election, together with a certified copy of the map of the boundaries of the CFD, as filed in the Office of the Recorder of the County. The Election Official, the Board Secretary and all the members of the Board and officers of the District, and their designees, are hereby authorized and directed to execute and deliver any documents and to perform all acts necessary to place the measure on the ballot including making any revisions, correction or alternations to the language of the ballot measure to comply with requirements of law, and to ensure that the applicable requirements of the California Elections Code are met, including without limitation the preparation and provision to the voters of all documents and instructions required by and specified in the California Elections Code.

6. The Board hereby finds that the proposed issuance of bonds and other debt for the CFD constitutes a "local bond measure" within the meaning of Sections 53410, et seq. of the California Government Code. As a result, the bond measure shall include the propositions set forth above and the following: (a) the specific purpose of the bonds and other debt shall be as set forth in the propositions; (b) any proceeds received from the sale of any bonds and other debt shall be applied only to the purposes set forth in the propositions; (c) the proceeds of any bonds and other debt shall be deposited into special accounts to be created therefor as part of the issuance of the bonds and other debt; and (d) the District shall cause a report to be prepared annually under Section 53411 of the Government Code.

7. Under Section 50075.1 of the Government Code, the following accountability provisions shall apply to the special tax: (a) the provision and/or acquisition of the Facilities and the Services, the payment of debt service on the bonds and other debt issued or incurred for the CFD and the incidental costs thereof, all as defined in the Resolution of Formation, shall constitute the specific purpose of the special tax; (b) the proceeds of the special tax shall be applied only to the specific purpose identified in (a) above; (c) there shall be created special account(s) or funds(s) into which the proceeds shall be deposited; and (d) there shall be caused to be prepared an annual audit and report of the CFD pursuant to Section 50075.3 of the Government Code.

8. The Election Official shall conduct the special mailed-ballot election in accordance with the Act, other applicable law, the provisions set forth above, and the following additional provisions:

(a) The special mailed-ballot election will be conducted as a mailed-ballot election in accordance with the applicable provisions of the California Elections Code and the Act, and the District's prior proceedings under those sections, and there will be no polling places for the special mailed-ballot election. The Election Official shall deliver all ballots to the qualified electors, and all voted ballots must be received at the General Manager's office by 5:00 p.m. on the election day to be counted.

(b) To vote for approving the proposed measures, a qualified elector must mark a cross (X) in the blank space opposite the word "YES" on the ballot to the right of the question. To vote against approving the proposed measures, a qualified elector must mark a cross (X) in the blank space opposite the word "NO" on the ballot to the right of the question on the proposed changes. The cross (X) or similar mark may be marked with either pen or pencil.

(c) The Election Official shall commence the canvass of the returns of the special mailed-ballot election promptly following the deadline for the election, and, at the conclusion of the canvass, shall determine the results of the special election and deliver said canvass to the Board.

(d) Impartial analysis, arguments for and against (if any) and rebuttal arguments (if any) may be prepared and will be included in the election materials in accordance with the Act and the California Elections Code.

9. For the special mailed-ballot election, if at least two-thirds of the votes cast are in favor of the measures, as determined by the Board after reviewing the canvass of the returns of the election, then the Board may adopt a resolution determining that the proposed CFD and bond proceedings were lawfully authorized in accordance with the Act

PASSED AND ADOPTED by the Board of Directors of Donner Summit Public Utility District, this 26th day of March 2024, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

DONNER SUMMIT PUBLIC UTILITY DISTRICT

By: _____
Cathy Preis
President, Board of Directors

ATTEST:

By: _____
Dawn Parkhurst
Secretary of the Board

EXHIBIT A
FORM OF SPECIAL ELECTION BALLOT

Donner Summit Public Utility District
Community Facilities District No. 2024-1 (Sewer Extension)

(Mailed-Ballot Election)

This ballot is for the use of the following qualified landowner elector:

Name and Address of Landowner	Number of Acres Owned	Total Votes
_____	_____	_____

According to the provisions of the Mello-Roos Community Facilities Act of 1982, and resolutions of the Board of Directors of the Donner Summit Public Utility District, the above-named landowner is entitled to cast the number of votes shown above under the heading "Total Votes," representing the total votes for the taxable land included within the Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension) (the "**CFD**") proposed to be levied a special tax in accordance with the rate and method of apportionment of special taxes for the CFD to pay for authorized facilities and bonds in a maximum principal amount of $11,100,000, all as further described in that certain "A Resolution of the Board of Directors of the Donner Summit Public Utility District Calling Special Election for Donner Summit Public Utility District Community Facilities District No. 2024-1 (Sewer Extension)" adopted by the Board of Directors of the District on March 26, 2024 (the "**Election Resolution**"), to which reference is made for further particulars and which is part of the full-text measure being voted on.

In order to be counted, this ballot must be executed and certified below and be returned to the General Manager, by mail or in person, to be received by the General Manager prior to 5:00 p.m. on June 25, 2024, at Donner Summit Public Utility District, 53823 Sherritt Lane, Soda Springs, CA 95728. Mailing by that time will not be sufficient. This ballot must be <u>received</u> by the time stated in order to be counted.

AN "X" OR OTHER MARK WILL CAST ALL VOTES ASSIGNED TO THIS BALLOT. All distinguishing marks or erasures are forbidden and make the ballot void. If you wrongly mark, tear, or deface this ballot, return it to the General Manager and obtain another.

Shall the measure to extend public sewer service to parcels within the Donner Summit Public Utility District Community Facilities District No. 2024-1 (CFD) by levying an annual special tax of up to $14,200/parcel in Tax Zone 1 and $8,900/parcel in Tax Zone 2, escalating 2% per year until Fiscal Year 2059-60, per the rate and method of apportionment of special tax for the CFD, initially raising approximately $533,000 annually, and authorizing bonds and an initial appropriations limit of $11,100,000, be adopted?[	YES: ☐ NO: ☐

Certification for Special Election Ballot

The undersigned is the above-named Landowner or the authorized representative of the above-named Landowner and is a person legally authorized and entitled to cast this ballot on behalf of the above-named Landowner, and certifies that the Landowner has reviewed all the CFD provisions and proceedings leading up to this election, including the list of authorized facilities, the bond indebtedness limit for the CFD, and the rate and method of apportionment of special tax for the CFD, which includes the tax rates and duration of the special tax to be placed on the Landowner's property. Further, the undersigned, on behalf of the above-named Landowner, hereby knowingly, voluntarily and intelligently waives any and all defects in any notice, ballot, or procedure related to the conduct of the election, whether known or unknown, except the right to vote and to have the ballots fairly counted.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed as of _____ ___, 2024.

_____
Signature

_____
Print Name

RESOLUTION NO. 2024-07

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT DECLARING INTENTION TO REIMBURSE EXPENDITURES RELATING TO CAPITAL IMPROVEMENTS FROM THE PROCEEDS OF TAX-EXEMPT OBLIGATIONS

WHEREAS, the Donner Summit Public Utility District ("DSPUD") owns and operates facilities and property for the collection and treatment of wastewater within the service area of DSPUD (the "Wastewater System"); and

WHEREAS, DSPUD anticipates undertaking certain capital improvement projects in order to extend service to certain residential units within the Sugar Bowl West and East Villages not currently connected to the system (the "Project"), and to issue debt for such Project and Project related costs, and to use a portion of the proceeds of such debt to reimburse expenditures made for the Project prior to the issuance of the debt; and

WHEREAS, United States Income Tax Regulations section 1.150-2 provides generally that proceeds of tax-exempt debt are not deemed to be expended when such proceeds are used for reimbursement of expenditures made prior to the date of issuance of such debt unless certain procedures are followed, one of which is a requirement that prior to the payment of any such expenditures, the issuer declares an intention to reimburse such expenditure; and

WHEREAS, it is in the public interest and for the public benefit that DSPUD declares its official intent to reimburse the expenditures referenced herein.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

Section 1. Description of Project. The Board hereby declares that it reasonably expects DSPUD to issue tax-exempt obligations in one or more series (the "Obligations") for the purpose of paying the costs of the Project and related capital improvements.

Section 2. DSPUD Expectations. DSPUD hereby declares that it reasonably expects to pay certain costs of the Project prior to the date of issuance of the Obligations and to use a portion of the proceeds of the Obligations for reimbursement of expenditures for the Project that are paid before the date of issuance of the Obligations. The maximum principal amount of Obligations expected to be issued is $6,000,000.

Section 3. Effective Date. This Resolution shall take effect from and after the date of its passage and adoption.

PASSED AND ADOPTED by the Board of Directors of Donner Summit Public Utility District, this 26th day of March 2024, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

DONNER SUMMIT PUBLIC UTILITY DISTRICT

By: _____
Cathy Preis
President, Board of Directors

ATTEST:

By: _____
Dawn Parkhurst
Secretary of the Board

Agenda Item: 8B

March 26, 2024
Agenda Item: 8B

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: Adopt the Water Supply Resiliency Study

RECOMMENDATION
Adopt the Water Supply Resiliency Study.

BACKGROUND
Donner Summit Public Utility District (DSPUD) received a grant from Placer County Water Agency (PCWA) Financial Assistance Program (FAP) to perform a drought resiliency study. A Request for Proposals was issued, proposals were received, and GEI Consultants was selected to provide the services listed in the RFP. The agreement with GEI Consultants was approved by the DSPUD Board on November 15, 2022.

One task included in GEI's scope of work is to prepare a Water Shortage Contingency Plan (WSCP). The WSCP was approved by the Board at the meeting in October 2023.

The final task in GEI's scope is to complete the Water Supply Resiliency Study (Study). The goals of the Study are to evaluate DSPUD's vulnerability to water quality degradation, climate change, and drought; and identify potential additional sources of water to address these vulnerabilities.

GEI has completed the Study and it is presented here for Board adoption.

DISCUSSION
The Study is included as Attachment 1 and a presentation is included as Attachment 2.

I. Drought Risk Evaluation
An operational simulation model was developed using historic Kidd Lake inflow and hydrology data, and historic Lake Angela storage data. Thus a derived Lake Angela inflow dataset was developed.

Climate change adjusted hydrology was then developed using data from the CalSim 3 20240 Tendency for the USGS Survey Gage at South Yub River at Cisco Grove. The Lake Angela inflow data was then adjusted using the CalSim dataset to develop Lake Angela inflow and storage projections for the period of 2025-2055.

Next, existing and future (build out) water demands were developed and compared against the inflow and storage projections. Existing demand is calculated as the deliveries that DSPUD reports to the State plus the volume used for backwashing the treatment plant filters. Future

demand is calculated by applying demand factors from the Nevada Irrigation District 2020 Urban Water Management Plan to the land uses identified in the County General Plans.

The Study concludes that in the current state of development within DSPUD, there is minimal risk of water supply shortage from drought conditions. The analysis shows that between 1976 and 2020, Lake Angela reached its lowest level (140 acre-feet) in 1990. At that level, there was still 100 acre-feet above the dead pool and available for use.

Under future build out scenario with climate change adjustments, Lake Angela will be draw down to dead pool in five years out of the 45 year study period. The Study concludes that this is due to multiple factors, including:

- Increased demand.
- Shift in runoff patterns due to climate change.
- Division of Dam safety limitations on storage to 230 acre-feet from November 1 through April 20.

The Study concludes that the shift in runoff patter is significant and when coupled with the regulatory storage restrictions, the storage in Lake Angela is artificially limited to less than full storage in 14 years of the 45 year study period.

Based on the analysis, the Study recommends the following:

- Develop a Water Shortage Contingency Plan (WSCP). The WSCP was prepared and adopted by the Board in October 2023.
- Contact Division of Dam Safety and request a revision to the storage requirements due to the shifting runoff patterns predicated by climate change projections.

II. Water Quality Risk Evaluation

Nuisance algae levels similar to the ones observed in 2009 and 2016 can cause water treatment problems such as taste and odor, disinfection byproducts, clogging of filter beds, and biofouling. The Study identified the following risks to water quality:

- Atmospheric deposition of nitrogen and phosphorus which promotes algae and biomass.
- Ash deposition from regional wild fires increasing nitrogen and phosphorus content which increases particulates and promotes algae and biomass.
- Climate warming increases the variability of dry- and wet-year conditions, influences the timing of snow melt, stream flow, and water storage. This can reduce water availability during consecutive dry years and increase surface water temperature, thereby promoting algae and biomass.
- Lake Angela has two distinct basins that are interconnected with a ditch. This reduces mixing during low lake levels and can affect water quality. This can increase potential for internal nutrient loading and the release of iron an manganese from the soil in the lake.
- Deep water withdrawal from the southern basin can promote movement of warmer water that is more suitable for algae growth from the northern basin.
- Nutrient availability increases over the year, increasing the likelihood of nuisance algae levels in July and August.

The Study recommends monitoring and water quality assessment to improve understanding of the issues, and in-lake operational control strategies to help manage water quality risks. The following recommendations are presented:

- Monitoring
  - Improve measurement of lake levels
  - Measure lake outflows at spillway and withdrawal point
  - Establish two in-lake monitoring sites to sample monthly during algae growing season.
  - Collect monthly samples from the raw water intake during the algae growing season.
  - Collect the following water quality data from the two in-lake monitoring sites and raw water intake at 1 foot depth increments from the surface to within 2 feet of the bottom sediment:
    - Water temperature, dissolved oxygen, specific conductivity, pH, and oxidation reduction potential
  - Collect the following water quality data from the two in-lake monitoring sites and raw water intake at 1 foot below surface and within 2 feet of the bottom sediment:
    - Total and dissolved organic/inorganic nitrogen and phosphorus fractions at lowest detection limits possible.
    - Total recoverable and dissolved iron and manganese.
    - Turbidity.
    - Chlorophyll-a content at the near surface samples.
  - If an algae bloom occurs, then sampling frequency should be increased and algae should be sampled for identification and to determine the presence of cyanobacteria.

- Water Quality Assessment Study
  - Perform at least two summers of water quantity and quality monitoring data to characterize the potential risk of nutrient loading.
  - Perform springtime monitoring to characterize the nutrient and metals concentrations following spring snowmelt.
  - Identify how the water quality in the two basins of Lake Angela affect each other and the whole lake.

- Possible Control Strategies
  - In-Lake
    - Algaecides
    - Ultrasonic sound waves
  - Operational
    - Close raw water intake and don't treat water when lake quality is poor.
    - When lake quality is poor:
      - Operate at lower flows.
      - Shorter filter runs.
      - Increase backwashing.
      - Increase coagulant dose.
      - Increase chlorine dose.
      - Consider using powdered activated carbon.
    - Evaluate additional finish water storage capacity to be used in case wildfires impact Lake Angela or its watershed.

III. Alternative Water Supply Evaluation

The Study evaluates several potential alternative water supply sources. The following solutions were briefly analyzed and eliminated:

- Groundwater –no local groundwater basin
- Expansion of Lake Angela –not a separate source.
- Develop another nearby lake –unknown quantity of water, requires new water rights.
- Recycled water – not a separate source, high operating cost.
- Hauled water – not viable as a long term separate source.

The Study performed a conceptual evaluation of intertie with Sierra Lakes County Water District (SCLWD) to meet the requirements of a long-term source, separate from Lake Angela. The Study evaluated infrastructure requirements, reconnaissance level costs, and water supply.

Infrastructure requirements are straight forward, a new 8-inch minimum water main along Soda Springs Road from the existing DSPUD main near the parking lot for Soda Springs Ski Resort to the existing SLCWD main at Pahatsi Road. The estimated length of the new water main is 0.8 miles, with a reconnaissance level cost estimate of $835,000. A booster pump station is not needed to supply DSPUD with water from SLCWD, but it would be needed for DSPUD to deliver water to SLCWD. The reconnaissance level cost estimate to construct the booster pump station is $150,000. It is important to note that the expected accuracy of a cost estimate at this point in the project ranges from -20 to -50% on the low side to +30 to +100% on the high side.

The model developed in the drought risk evaluation was used to evaluate SLCWD water operations under existing conditions, future conditions without interties, and future conditions with intertie.

ANALYSIS

The Study concludes that under future climate conditions, both Lake Angela and Serene Lakes have the capacity to meet the anticipated future demand, provided that dry year reductions in deliveries are implemented during water-short years.

Both DSPUD and SLCWD would only need an intertie when consumptive demands approach build out levels. However, an intertie could serve as a valuable resource for emergency water supply needs, enabling the two Districts to offer temporary support in the event of equipment failures or water quality emergencies.

FISCAL IMPACT

There is no cost associated with this action.

CEQA ASSESSMENT

The approval of this Study is not a CEQA project.

ATTACHMENTS

1. Final Water Supply Resiliency Study
2. Presentation

DONNER SUMMIT PUBLIC UTILITY DISTRICT

NOVEMBER 2023

DRAFT
WATER SUPPLY RESILIENCY STUDY

PREPARED BY

GEI Consultants

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ACRONYMS AND ABBREVIATIONS

AF	Acre-Feet
AFY	Acre-Feet per Year
cfs	Cubic Feet per Second
CT	Central Tendency
DR	Drought Risk
DSOD	California Division of Safety of Dams
DSPUD	Donner Summit Public Utilities District
DWR	California Department of Water Resources
gpm	Gallons per Minute
IT	Intertie
msl	Mean Sea Level
NAVD 88	North American Vertical Datum 1988
SB 552	Senate Bill 552
SGMA	Sustainable Groundwater Management Act
SLCWD	Sierra Lakes County Water District
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
WCR	Well Completion Report
WSCP	Water Shortage Contingency Plan
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

1.1 STUDY AREA

Lake Angela, located in the southern part of Nevada County and just north of the Placer County line, is the sole source of water supply for Donner Summit Public Utilities District (DSPUD or District), serving approximately 360 domestic water customers in the Donner Summit area. Lake Angela is located in the headwaters of the South Yuba Watershed, residing on Donner Summit at an elevation of 7,195 feet and located near the crest of the Sierra Nevada Mountains. The lake is bordered by Donner Pass Road to the south, Donner Ski Ranch to the west, the Pacific Crest Trail to the east, and Interstate 80 to the north (see Figure 1-1).

1.2 PURPOSE OF THE STUDY

DSPUD faces many challenges when it comes to maintaining an adequate, reliable, high-quality water supply. Lake Angela, which serves as the District's sole source of supply, has experienced algal blooms in the past which has resulted in water quality impacts. The District's water supply reliability is also threatened by the impacts from drought, which are expected to be exacerbated by future climate conditions. Moreover, Senate Bill 552 (SB 552) (California Water Code Section 10609.60 et seq.) which was signed in September 2021 requires that no later than January 1, 2027, the District have at least one backup water supply or a water system intertie that meets current water quality requirements and is sufficient to meet average daily demand. The goals of this water supply resiliency study (study) are to evaluate the vulnerability of the District's water supply due to risks from water quality, drought, and climate change, and identify potential sources of water to address these impacts and the requirements of SB 552.

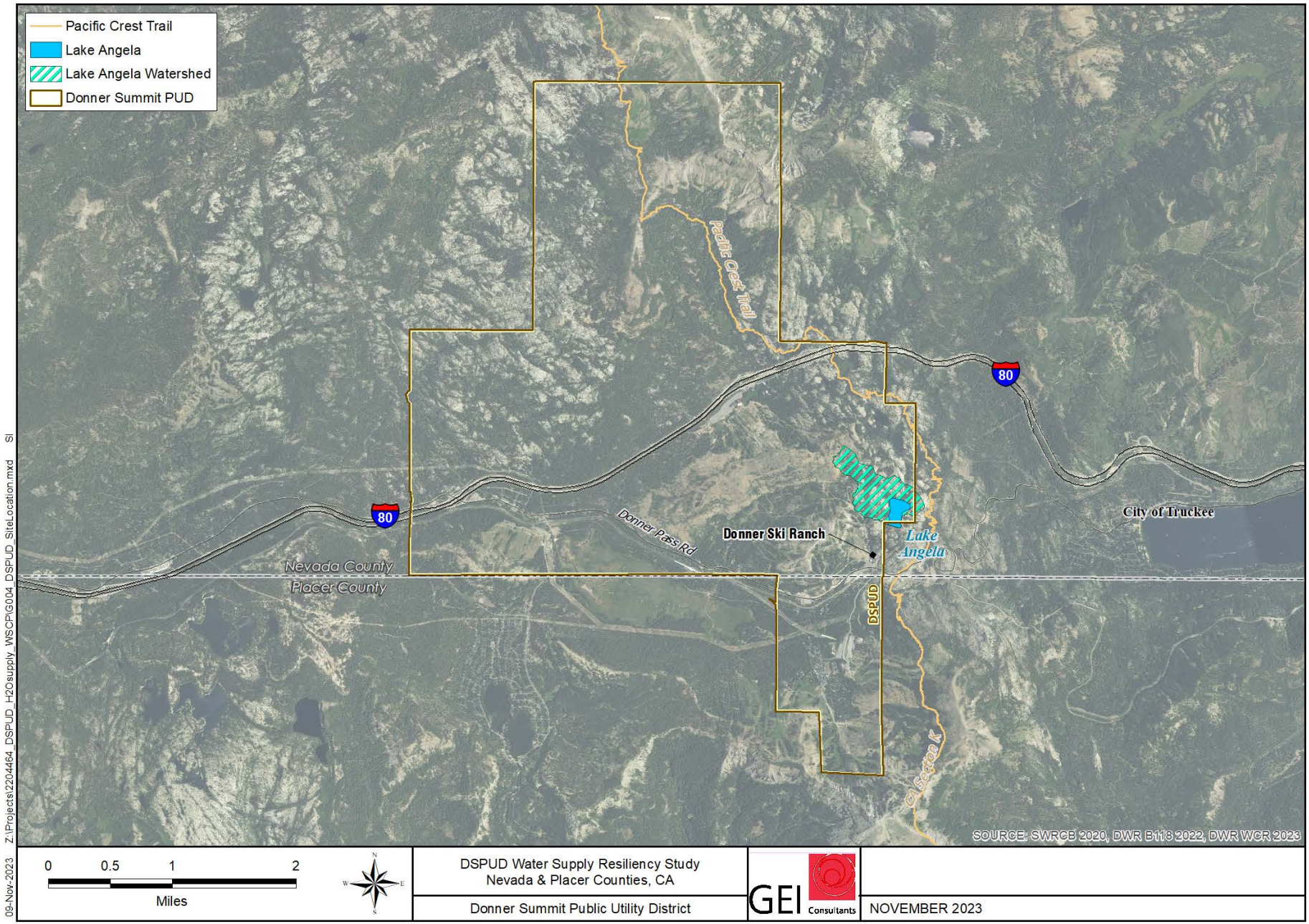

Figure 1-1. Site Map

1.3 STUDY ORGANIZATION

This study is organized into seven chapters:

- **Chapter 1 – Introduction:** This section provides an overview of the study area and describes the purpose and scope of the study.
- **Chapter 2 – Drought Risk Evaluation:** This section assesses the risk of drought and climate change impacts to DSPUD and provides accompanying recommendations.
- **Chapter 3 – Water Quality Risk Evaluation:** This section assesses the risk of water quality impacts to DSPUD and provides accompanying recommendations.
- **Chapter 4 – Identification of Potential Water Supply Solutions:** This section provides an overview of potential permanent and short-term water supply solutions that may be available to supplement the District's existing water supply.
- **Chapter 5 – Evaluation of Water Supply Solutions:** This section provides an evaluation of water supply solutions selected for evaluation.
- **Chapter 6 – Summary and Conclusions:** This section provides a summary of the study's findings and outlines next steps.

2 DROUGHT RISK EVALUATION

This chapter describes the operations simulation model used to evaluate the risk of drought and climate change impacts to DSPUD. The drought risk evaluation was conducted by incorporating existing and future conditions scenarios into the operations simulation model. Using the results from these scenarios, drought risks and recommendations are also provided.

2.1 MODEL DEVELOPMENT

To evaluate the risk of drought and climate change impacts, an operations simulation model was developed which incorporates current and future demands under historic and projected climate change hydrologic scenarios. These scenarios were tested over a period containing water years 1976 to 2021 to include the hydrologic variability which occurs in the basin. Table 2-1 provides a summary of the assumptions used for the two scenarios that were explored as part of the drought risk evaluation. Development of the historic and future hydrology datasets is described in Section 2.1.1 and 2.1.2, and the development of the demands under existing and future conditions is described in Section 2.1.5.

Table 2-1. Drought Risk Evaluation Scenarios

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
DR-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
DR-2	Future Conditions	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents

Note: DR = drought risk

2.1.1 HYDROLOGY

As part of the model development, two hydrology datasets were developed. The first data set is a representation of historic inflow to Lake Angela derived from the Kidd Lake inflow data created as part of the inflow dataset for Nevada Irrigation District's Federal Energy Regulatory Commission Relicensing effort of the Yuba-Bear Project, updated for their current *Plan for Water* effort. This dataset was developed by using

the methods described in the *Hydrologic Analysis Technical Memorandum – Final Report for Nevada Irrigation District* dated November 12, 2020. The dataset extends through 2021 and includes an inflow time series to Kidd Lake. Kidd Lake is about 5 miles west of Lake Angela with similar watershed characteristics and watershed areas. Lake Angela has a watershed area of 0.225 square miles and an elevation of 7,210 ft mean sea level (msl). Kidd Lake has a watershed area of 1.9 square miles and an elevation of about 6,640 ft msl. One significant difference is the elevation of the watersheds of the two lakes. Lake Angela's watershed reaches over 7,600 ft msl, while Kidd Lake's watershed highest point is 6,750 ft msl.

Initially, the Kidd Lake inflow dataset was scaled by watershed area to develop a daily inflow dataset for Lake Angela from 1976 through 2021 using Eq. 1:

Eq. 1 $Inflow_{KL} \times (Watershed\ Area_{LA} / Watershed\ Area_{KL})$

Where:

$Inflow_{KL}$ equals the time series inflow to Kidd Lake

$Watershed\ Area_{LA}$ equals the watershed area of Lake Angela (0.225 sq mi)

$Watershed\ Area_{KL}$ equals the watershed area of Kidd Lake (1.9 sq mi)

The resulting inflow, shown in blue in Figure 2-1, was used in the model simulation with historic demand.

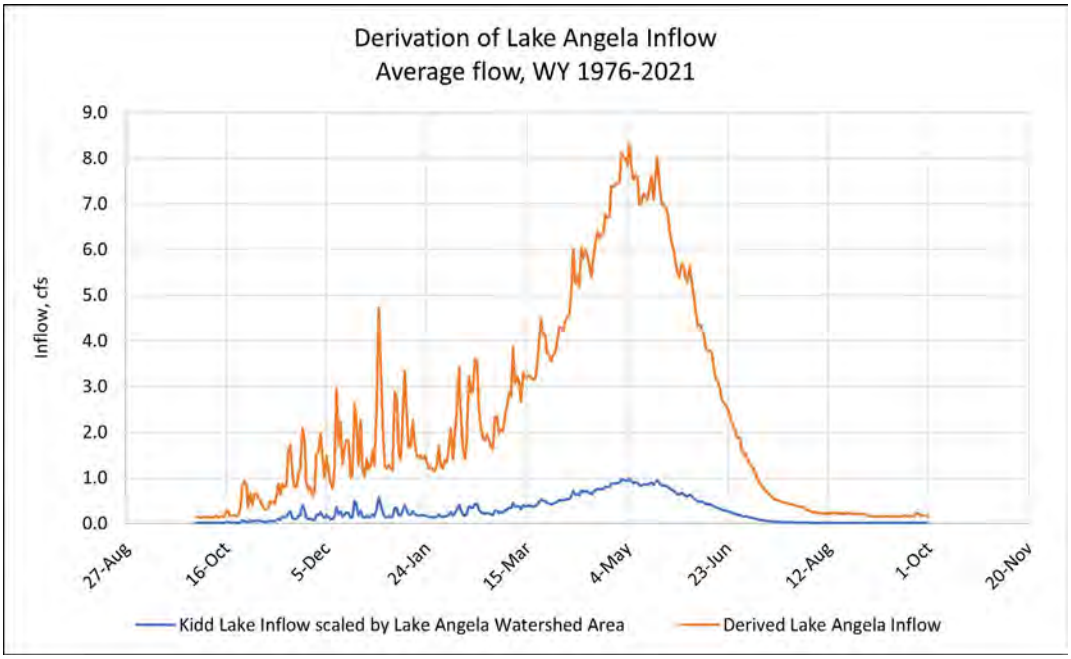

Figure 2-1. Lake Angela Inflow

The simulation model was used to test the Lake Angela Inflow hydrology dataset by comparing model operations to the historic storage data using historic deliveries. Figure 2-2 illustrates the simulated storage compared to the historic storage. The gray lines show the intermittent historic Lake Angela storage. The orange line represents the simulated storage using the scaled Kidd Lake inflow and the historic consumptive deliveries. Using the scaled hydrology data results in storage volumes that are much

lower than historic. The results indicate that the scaled approach produces inflows that are much lower than actual inflows. A second validation study was performed using the full Kidd Lake inflow dataset. The blue line illustrates the resulting storage which very closely matches the historic storage. Although Figure 2-2 only shows 2014, these trends are similar for the 2009 to 2015 period where both historic storage and historic delivery data are available. The full derived Lake Angela inflow dataset demonstrates a better fit for the Lake Angela inflow than the scaled Kidd Lake inflow. The derived inflow dataset was chosen as a suitable dataset for the Lake Angela inflow for this analysis.

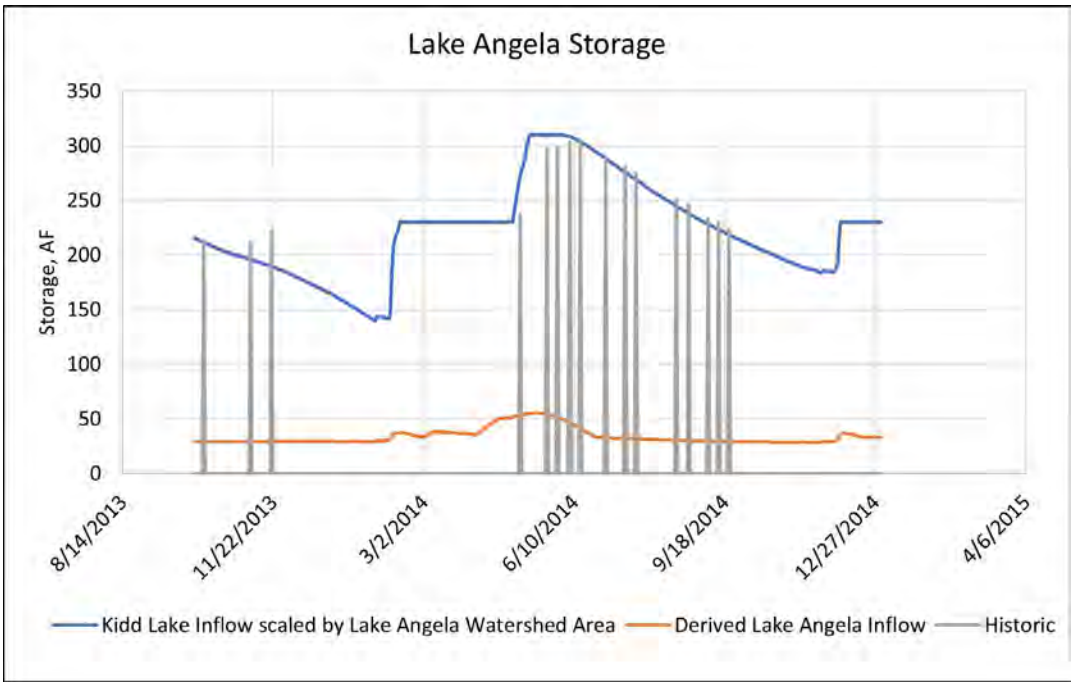

Figure 2-2. 2014 Simulated Lake Angela Storage vs Historic Storage

2.1.2 CLIMATE CHANGE HYDROLOGY

Climate change adjusted hydrology was developed using CalSim 3 2040 Central Tendency for the U.S. Geological Survey Gage at South Yuba River at Cisco Grove. This dataset was developed for the *2021 California Department of Water Resources (DWR) Delivery Capability Report*. The 2040 Central Tendency (or 2040 CT) data at Cisco Grove was disaggregated into daily timestep data and adjusted for the historic Lake Angela inflow dataset. The study period for this climate change dataset is October 1, 1975 to September 30, 2015. Because the CalSim dataset only has data through 2015, years similar to 2016 through 2021 were identified to extend the record through 2021.

Figure 2-3 illustrates the historic unimpaired inflow to Lake Angela compared to the 2040 level of climate change hydrology. The total volume of the climate change hydrology is 0.2 percent less than the historic hydrology. The most significant change is the shift in runoff pattern. This shift reflects the diminished snowpack expected in the future, resulting in a potential need for changes in operations or a replacement of the snowpack storage.

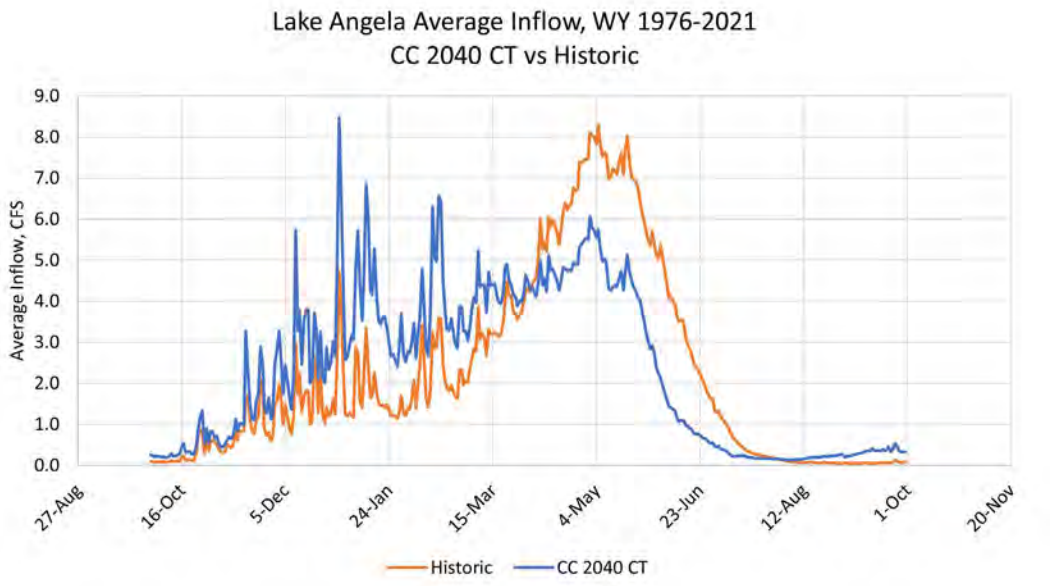

Figure 2-3. Climate Change 2040 CT vs Historic

These inflow datasets contain watershed runoff modeling results for two climate conditions as shown in Table 2-2.

Table 2-2. Climate Conditions

Condition	Description
Historical	Historical representation of Lake Angela inflow from Kidd Lake Inflow
2040 Future Conditions	Future conditions projected climate for a thirty-year period centered on 2040 (2025-2055)

Figure 2-4 shows how the two datasets compare. The climate change scenario volume is almost identical to the historic hydrology.

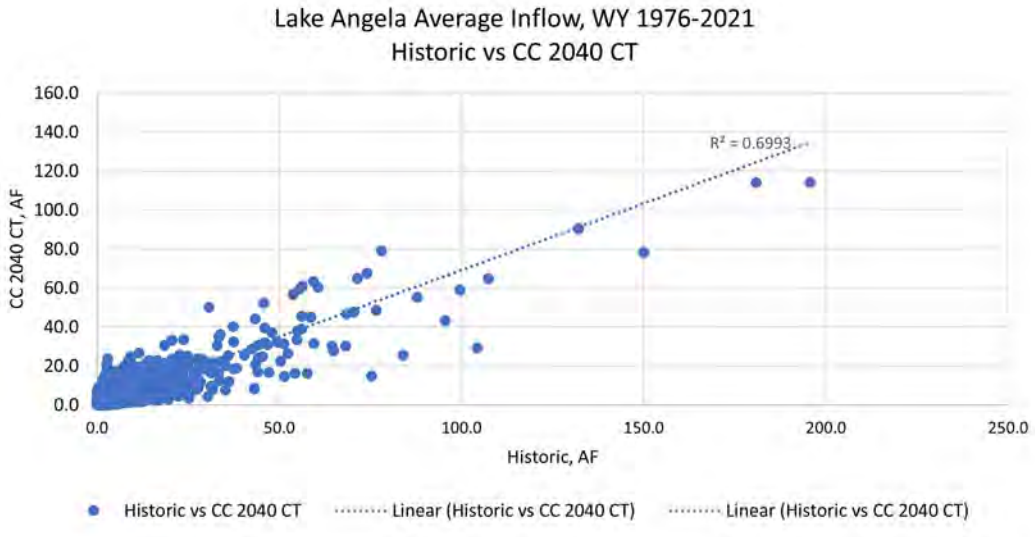

Figure 2-4. Historical versus 2040 Future Conditions

2.1.3 EVAPORATION

No evaporation rate data was available specifically for Lake Angela. As an estimate of evaporation, the DWR Bulletin 73, *"Evaporation from Water Surfaces in California"*, dated November 1979 combined with the Lake Valley Reservoir evaporation pattern from CalSim 3 was used. There is a fairly strong relationship between elevation and evaporation. Table 2-3 illustrates the estimated evaporation rates used for Lake Angela. According to Google Earth, Lake Angela is located at about 7,200 ft msl. Annual evaporation was estimated as 32.01 inches for the historical condition, and 32.98 inches for the 2040 future conditions. Neither the annual total nor the monthly rates are significantly different between the historic and 2040 climate change datasets.

Table 2-3. Evaporation Rates, inches

Month	Historic	2040 CT
Oct	2.53	2.62
Nov	0.94	0.98
Dec	0.49	0.51
Jan	0.37	0.38
Feb	0.74	0.76
Mar	1.33	1.36
Apr	2.47	2.52
May	3.58	3.69
Jun	4.57	4.73
Jul	5.89	6.04
Aug	5.26	5.41
Sep	3.86	3.97
Total	**32.01**	**32.98**

2.1.4 DIVISION OF SAFETY OF DAMS STORAGE REQUIREMENTS

Lake Angela operations are subject to the California Division of Safety of Dams (DSOD) Jurisdiction. Lake Angela must reduce storage capacity to 230 acre-feet (AF) from November 1 through April 30. Maximum capacity is 310 AF from May 1 to October 31. In addition, the District will operate the spillway gates considering how wet the year is. For example, when the year is very wet the spillway gates may remain open beyond April 30 to bypass large inflows to Lake Angela.

2.1.5 CONSUMPTIVE DEMANDS

Another stressor on the Lake Angela water supply are the consumptive demands summarized in the following sections and shown in Table 2-4.

2.1.5.1 EXISTING DEMANDS

The existing demands were developed by averaging the deliveries reported as beneficial use to the State Water Resources Control Board (SWRCB)[1]. Averaging

1 *https://ciwqs.waterboards.ca.gov/ciwqs/ewrims/listReportsForWaterRight.do?waterRightId=37062*

the deliveries for the 2017 to 2021 period on a monthly basis results in the *Existing Consumptive Demand, AF* column in Table 2-4. The District estimates that an additional 20 percent of the raw water supply is needed for backwashing the water treatment plant in addition to the consumptive demand. Total existing demand is 243 acre-feet per year (AFY).

2.1.5.2 FUTURE DEMANDS

The future demand data set was developed using the Soda Springs Area Plan, dated October 25, 2016[2] for the portion of the District that exists in Nevada County. The Land Use designations from the Placer County General Plan were used for the portion of the District that exists in Placer County. The Nevada Irrigation District 2020 Urban Water Management Plan dated July 2021[3] was used as a reference to identify unit demands for the various service area types identified in both the Soda Springs Area Plan and the Placer County area. Total treated water demand within the Nevada County service area is 218 AFY. The service area within Placer County lies completely within the Sugar Bowl Ski Resort. Most of the parcels within the resort area with a treated water demand are residential. The Placer County Geographic Information System Department provided the land use designations within the Ski Resort[4]. The same demand factors within the Nevada Irrigation District 2020 Urban Water Management Plan were applied to the residential parcels within the Sugar Bowl Ski Resort to develop the future level demands. Total Placer County demand is anticipated to be 160.6 AFY. Total District (Nevada County + Placer County) demand is anticipated to be approximately 378.6 AFY. After adding water needed for backwashing the treatment plant, total demand is 454.3 AFY.

Build out demands are expected to be about 176 AFY more than the existing demand. With an anticipated increase in backwash water, that increase rises to 211 AFY more than existing demand. Table 2-4 summarizes the demands used for both the existing and future conditions.

2 *https://www.nevadacountyca.gov/995/Soda-Springs-Area-Plan*
3 *https://www.nidwater.com/ag-urban-water-management-plans*
4 *http://maps.placer.ca.gov/Html5viewer/Index.html?configBase=http://arcgis/Geocortex/Essentials/REST/sites/LIS_Public/viewers/LIS_Base-Public/virtualdirectory/Resources/Config/Default*

Table 2-4. Existing and Future Consumptive Demands

Month	Existing Consumptive Demand, AF	Baskwash (20% of Demand), AF	Total Existing Demand, AF	Build out Consumptive Demand, AF	Baskwash (20% of Demand), AF	Total Future Demand, AF
Jan	23.7	4.7	28.4	44.2	8.8	53.1
Feb	16.2	3.2	19.4	30.2	6.0	36.3
Mar	17.5	3.5	21.0	32.7	6.5	39.3
Apr	15.2	3.0	18.2	28.4	5.7	34.1
May	14.4	2.9	17.3	26.9	5.4	32.3
Jun	18.3	3.7	22.0	34.3	6.9	41.1
Jul	18.3	3.7	21.9	34.2	6.8	41.0
Aug	16.9	3.4	20.3	31.7	6.3	38.0
Sep	14.1	2.8	16.9	26.4	5.3	31.6
Oct	14.8	3.0	17.8	27.7	5.5	33.3
Nov	14.6	2.9	17.5	27.3	5.5	32.8
Dec	18.5	3.7	22.2	34.6	6.9	41.5
Total Potable Water Demand	**202.5**	**40.5**	**243.0**	**378.6**	**75.7**	**454.3**

2.1.6 MODEL SCHEMATIC

The model schematic shown in Figure 2-5 illustrates the modeled facilities and linkage. The modeled facilities are overlayed on the watershed features to approximate the geographic location of the facilities. The schematic is made up of three node types and two link types, described below.

2.2 RESULTS

As previously summarized in Table 2-1, the drought risk evaluation explored two scenarios to evaluate the risk of drought and climate change impacts: scenario DR-1, which represents current historic hydrology and existing demands (existing conditions), and Scenario DR-2, which represents future climate change hydrology coupled with anticipated future demands (future conditions).

2.2.1 SCENARIO DR-1 - EXISTING CONDITIONS

As discussed in Section 2.1.5.1, this scenario uses a demand that was developed by averaging the actual historic demands for the 2017 to 2021 period. The average demand repeats for every year of the simulation. Figure 2-6 shows the annual delivery and demand for the period of record. In 1976, 1977, 1988, 2013, 2014 and 2015 there are shortages imposed. This was done in a manner that tries to mimic curtailments imposed by the SWRCB by looking at the April through July runoff.

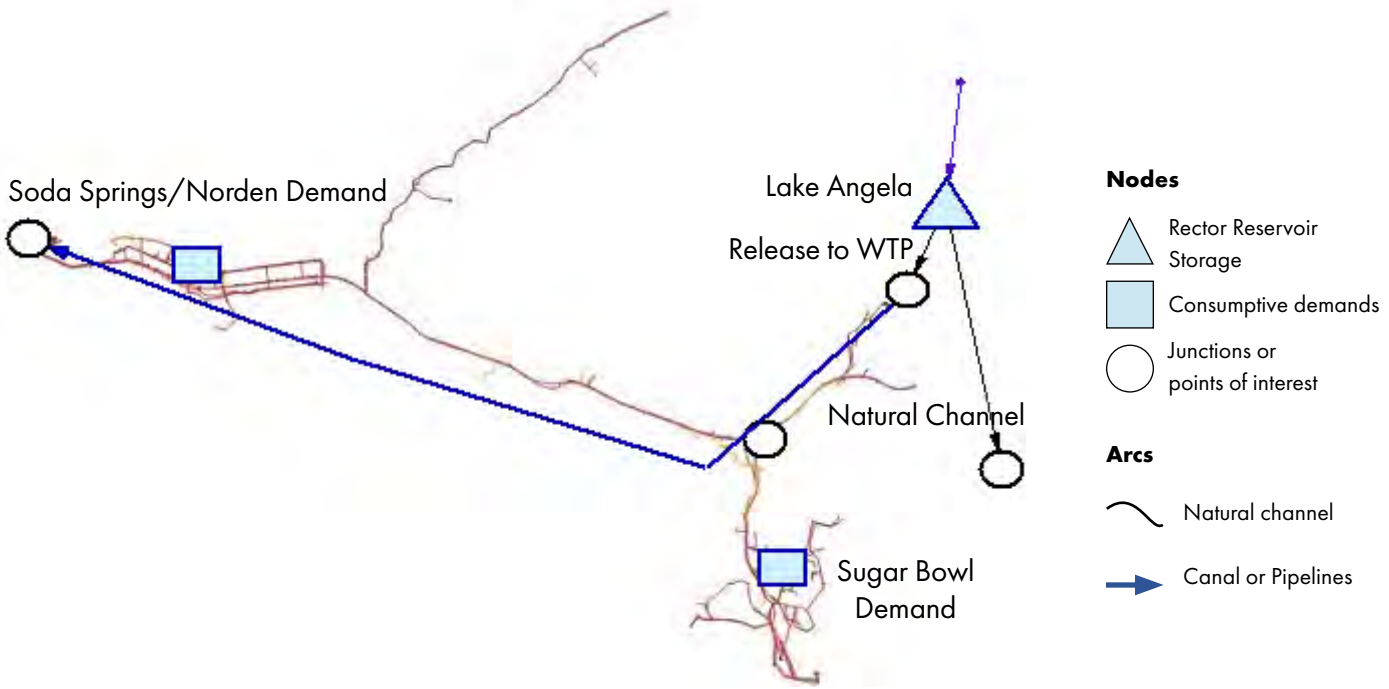

Figure 2-5. Lake Angela Reservoir System Schematic

These curtailments are for the April through the following February period only and impose a 25 percent reduction in delivery. These reductions in delivery exactly meet the reduction in demand meaning that these are following the curtailment logic and are not because storage has reached dead pool at Lake Angela.

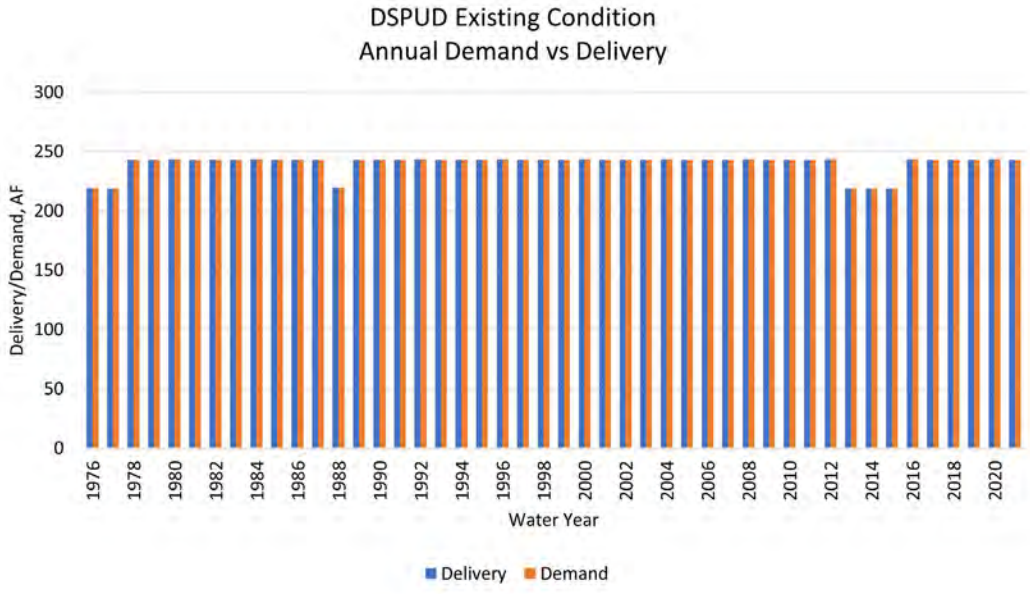

Figure 2-6. Scenario DR-1 Deliveries

Figure 2-7 illustrates the resulting storage at Lake Angela. The minimum storage at Lake Angela for the study period occurs in 1990 and is roughly 140 AF, leaving approximately 100 AF of additional storage above the dead pool. Under existing conditions, the water supply is more than sufficient to meet demand. Assuming the system is functioning well, the findings suggest a minimal risk of water supply shortage resulting from drought conditions under Scenario DR-1.

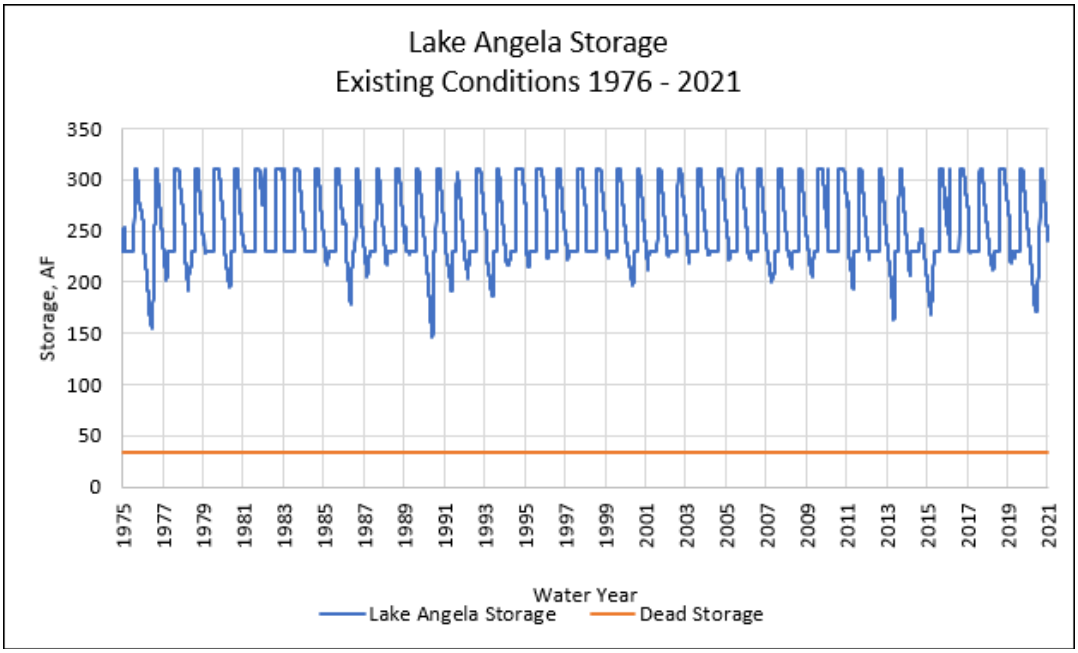

Figure 2-7. Scenario DR-1 Lake Angela Storage

2.2.2 SCENARIO DR-2 - FUTURE CONDITIONS

As discussed above, Scenario DR-2 includes full build out demands with climate change hydrology. The demands account for growth in the service area and, as discussed in Section 2.1.5.2, are expected to increase by 211 AFY. Figure 2-8 illustrates the deliveries made under Scenario DR-2. This scenario includes the same curtailment logic as Scenario DR-1. However, under Scenario DR-2, the deliveries do not exactly meet the demand. This is because the storage at Lake Angela has fallen to dead pool and no other supplies are available.

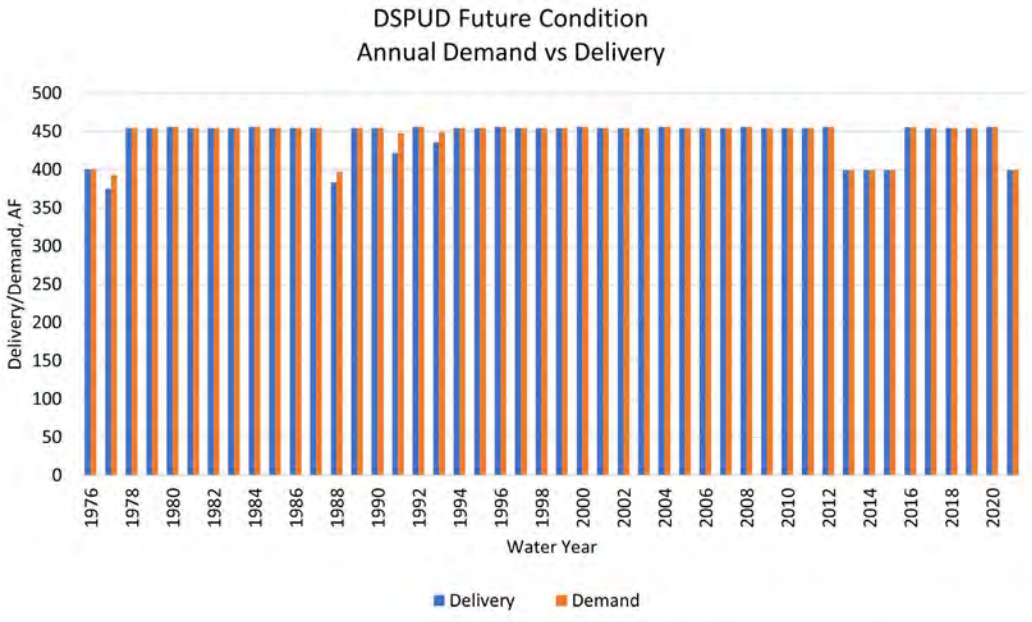

Figure 2-8. Scenario DR-2 Deliveries

Figure 2-9 illustrates the Lake Angela storage at the Future Level. Figure 2-9 shows that Lake Angela falls to dead pool eight times during the 1976 to 2021 simulation period. Figure 2-9 also shows that Lake Angela is constrained by the DSOD storage limitation. The DSOD limitation prevents storage of more than 230 AF during the November 1 through April 30 period. The shift in runoff patterns of the climate change hydrology results in a change in the ability to store water. This pattern shift combined with the DSOD requirement prevents Lake Angela from maximizing the water supply.

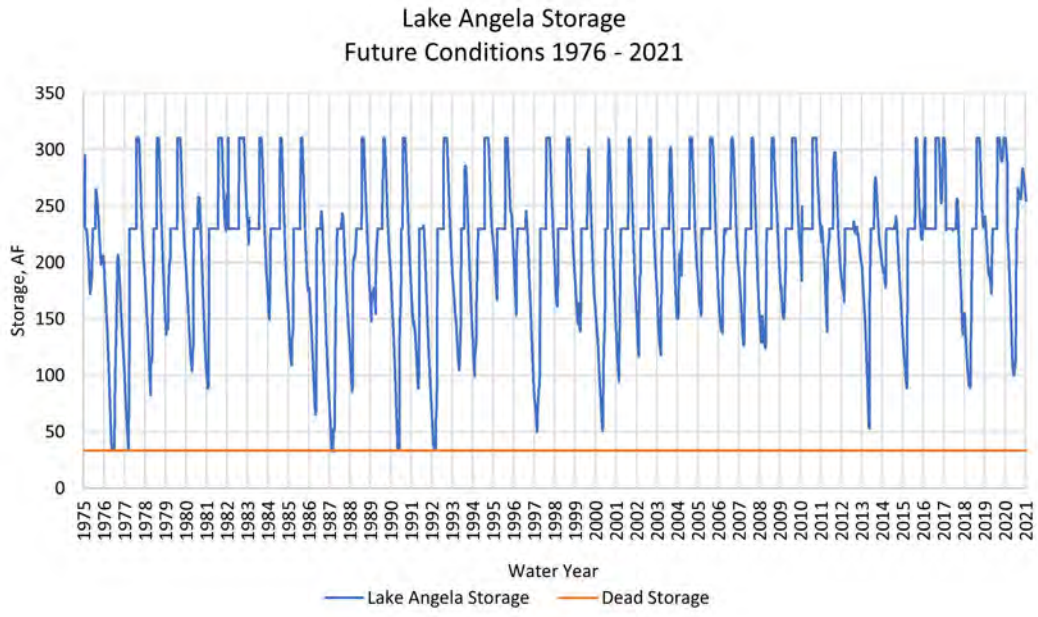

Figure 2-9. Scenario DR-2 Lake Angela Storage

Under future conditions, additional steps will be needed to meet anticipated demand. Changes to the DSOD requirements and the development of a water shortage contingency plan could be used to enhance water supply reliability. Under current operating criteria at future demand, study results indicate the reservoir will not always fill and in 5 years out of the 45-year study period, Lake Angela will be drawn down to dead pool.

2.2.3 CONCLUSIONS

Based on the results of the drought risk evaluation, it appears that Lake Angela can meet demands under existing conditions. Under future conditions assuming full build out demands and climate change hydrology, it appears that the increased demands coupled with the shift in runoff patterns due to climate change and the DSOD storage requirements limit Lake Angela from maximizing the available water supply.

The shift in the runoff pattern of the climate change hydrology is significant. Figure 2-10 illustrates the impact of climate change hydrology. The orange line shows the historic average annual runoff pattern. The blue line shows the climate change average annual runoff pattern. The red line shows the maximum allowable storage ordered by DSOD. Figure 2-10 illustrates how the climate change hydrology peak runoff pattern shifts earlier in the year to the December through March period as

compared to the historic April through June period. Although both average annual runoff volumes are almost identical, use of climate shifted supply is hindered by the DSOD requirements that were developed for the historic runoff patterns.

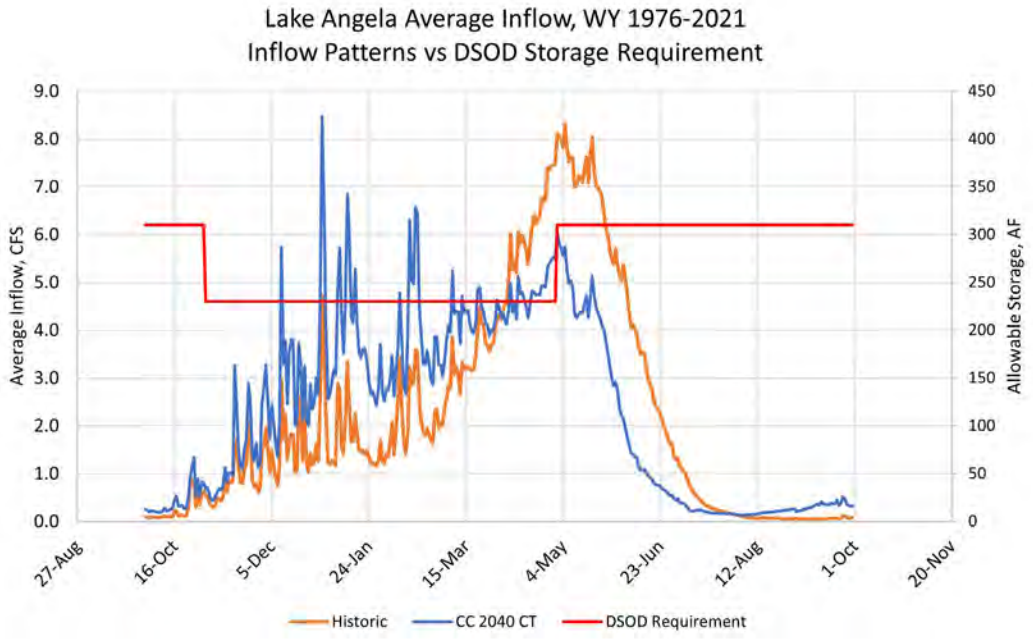

Figure 2-10. Lake Angela Inflow vs DSOD Storage Requirement

With the increase in demand, capturing the earlier runoff to fill Lake Angela is necessary. Figure 2-9 illustrates that the DSOD requirement causes spills, limiting the gain in storage to full pool in just 31 of the 45-year study period. Eliminating or revising the DSOD requirement will increase water supply and therefore reduce the delivery shortages.

2.3 DROUGHT RISKS AND RECOMMENDATIONS

The drought risk evaluation demonstrates the need for development of a water shortage contingency plan and the consideration of a revision to the DSOD storage requirements.

- **Development of a water shortage contingency plan:** Under existing conditions, study results indicate that there is little risk of water supply shortage due to drought. However, study results for Scenario DR-2 assuming full build out demands and climate change hydrology suggest that there will be a supply-demand imbalance during some future dry years. Without additional supplies, the District will need to impose reductions to deliveries during dry conditions to maintain storage levels above dead pool at Lake Angela. To help conserve water supplies during future droughts or emergency conditions where storage begins to approach dead pool, DSPUD should consider the development of a water shortage contingency plan. This plan would include a framework of specific water use restrictions that would be put into effect during a water shortage, and the triggers that would initiate these restrictions.

- **Consideration of a revision to the DSOD storage requirements:** The current DSOD storage requirements were developed for runoff patterns that generally peak in mid to late April through May. Climate change projections indicate future runoff patterns will result in peak runoff in the January through February period. Because of the shifting runoff patterns and the current DSOD requirements coupled with anticipated demands, filling Lake Angela in the future may become less frequent. Figure 2-10 illustrates the current DSOD requirements against the historic and future runoff patterns. By visual inspection, it appears that allowing storage up to full pool could be shifted to as early as March maximizing water supply while still protecting the dam. The District should request that DSOD review the current requirements and make adjustments as runoff patterns shift.

3 WATER QUALITY RISK EVALUATION

This chapter describes the ecological and limnological steady-state conditions for Lake Angela based on available information and describes the potential risks that may influence water quality and its treatability. In-lake management strategies and operational considerations regarding water treatment to adaptively mange changes in Lake Angela are also provided. Further details related to the water quality risk evaluation can be found in Appendix A.

3.1 LAKE ANGELA

As stated in Chapter 1, the District's only source of water supply comes from Lake Angela which is located at an elevation of about 7,200 feet, near Donner Summit and the crest of the Sierra Nevada Mountains. The water from Lake Angela is treated at the District's water treatment plant and distributed to approximately 360 domestic water customers in the Donner Summit area. This includes neighboring communities like Norden, Soda Springs, and Big Bend, as well as local ski resorts.

Lake Angela is supplied with source water from a relatively small watershed, spanning 144 acres, which forms a part of the headwaters in the South Fork Yuba River Watershed. The primary hydrological input to the lake is derived from snowpack and overland runoff, as there are no defined tributary inflows contributing to the waterbody. The lake also likely receives little to no ground water inflows given the surrounding geology and its headwaters location. The sole purpose of Lake Angela is for domestic water supply.

Lake Angela Dam was first constructed in 1945 and later expanded in 1971 to its current configuration, creating a surface area of approximately 19.6 acres with a storage capacity of approximately 310 AF – which is DSPUD's water right – at an elevation of 7,197 ft. The expansion of the dam created two basins separated by a ditch at an elevation of 7,177 feet. Even though the historical dam was partially removed to create a connectivity channel (i.e., ditch) between the basins, the natural geology along the historical dam remained in place, creating a natural sill between the basins (Figure 3-1). The existing concrete dam has a crest elevation of 7,197.2 feet and a spillway crest elevation of 7,192.8 feet (NAVD 88). A 10-inch diameter outlet structure for the water treatment facility is located at an elevation of 7,172 ft, at the southern end of the lake (i.e., southern basin), while the deepest portion of the lake is located approximately 1,000 ft north of the dam (i.e., northern basin). Other than the spillway, there is no defined reservoir outfall, releasing water downstream,

thus, water supply releases and evaporation account for the hydrological outputs. During the period from November 1 to April 30, Lake Angela is required to reduce its storage capacity to 230 AF. From May 1 to October 31, the maximum capacity of the lake is allowed to reach its full 310 AF. The District will operate the spillway gates considering how wet the year is. For example, when the year is very wet the spillway gates may remain open beyond April 30 to bypass large inflows to Lake Angela.

3.2 ECOLOGICAL SETTING

Lake Angela is set in the granitic rock outcrops of the Cretaceous Period, characterized as Horneblende-biotite-granodiorite of Summit Lake with K-feldspar megacrystic facies and Tonalite of Lake Mary formations, with small pockets of Talus glacial deposits from the Holocene Period (Sylvester et al. 2012). The Natural Resource Conservation Service further refines the granitic soil characteristics as granitic-Tinker-Cryumbrepts derived from decomposed granite, with 2-30 percent slopes and Meiss weathered rock outcroppings with pockets of freely drained soils (Huntington and Akeson 1987). The mineral soils are poorly developed, and the organic matter content is low due to the exposed granitic outcrops and relatively open canopy of the coniferous forest consisting of Lodgepole Pine (Pinus contorta var. murrayana) and Jeffrey Pine (P. jeffreyi) with low lying shrubs, Sagebrush (Artemisia tridentata) and Bitterbrush (Purshia tridentata).

As reported in the Lake Angela Watershed Sanitary Survey Report (Sauers Engineering, 2021), wildlife in the watershed is relatively limited by availability of food, shelter, and places for rearing young. Land use, as defined by Nevada County General Plan, is Forest.

Because the lake is designed for storage, with no regular flow-through, water can become stagnant. There are two conditions that contribute to algae growth: 1) during years of low precipitation when there is no outflow; and 2) during summer months when the lake is experiencing thermal destratification. Excessive algal blooms were experienced in July-August 2009 and July-August 2015 (Sauers Engineering, 2021).

3.3 EXISTING MONITORING DATA FOR LAKE ANGELA

3.3.1 HYDROLOGY

Based on the limited lake level data, collected primarily from 2009 to 2015, Lake Angela is generally at full capacity (7,192.8 ft) from April to June, at which time the summer water demand decreases lake level by approximately 1.6 feet per month through September, and eventually decreases to minimum lake level (7,186 ft) in November. No lake level data are available for the winter months December through February when the lake is ice- and snow-covered. In terms of risk to Lake Angela's hydrological cycle and water storage, climate modeling scenarios indicate that the Yuba Watershed may experience considerable reductions in flow and water storage under warmer climate conditions (Null et al. 2010). The northern Sierra Nevada watersheds are highly developed for drinking water storage and reductions in flow are predicted to be the greatest during wet-year type conditions. Because Lake Angela is at the headwaters of the Yuba Watershed, these modeled conditions may be less pronounced; however,

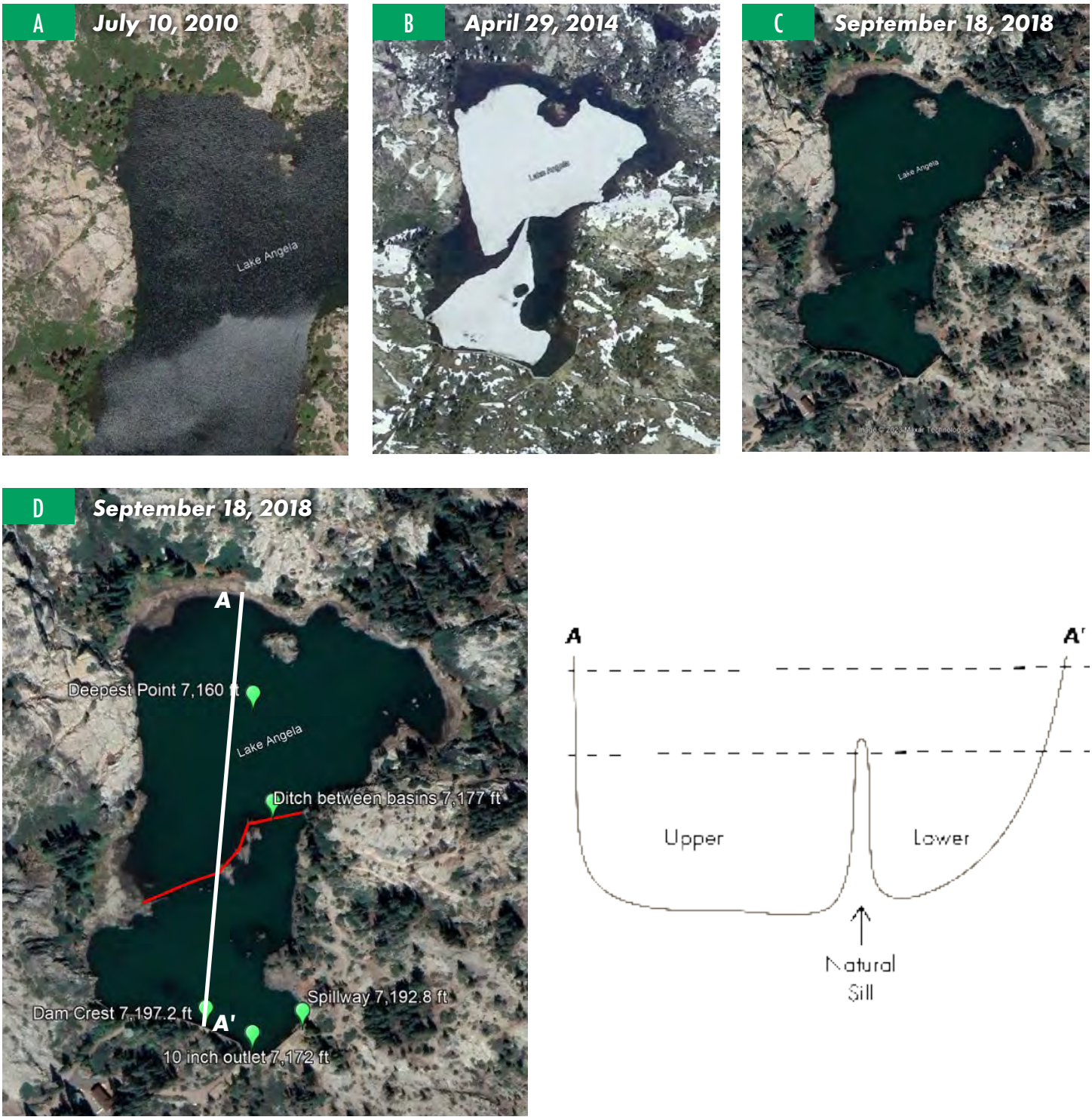

Figure 3-1. Satellite Images of Lake Angela

decreases in wet-year storage followed up by consecutive dry-year conditions may result in decreased lake levels that can also affect water quality. Per DSPUD's permit for diversion and use of water, water can only be collected and stored from November 1 to July 31, and collection outside of this period is not authorized to offset evaporative losses or low lake levels. If lake levels approach a condition where the two basins are largely isolated (Figure 3-1), except for the interconnective ditch portion, wind-induced mixing will be limited, creating more quiescent conditions in the southern basin. These conditions may be more prevalent during the late summer or fall period, when conditions are more favorable for algae production.

3.3.2 WATER QUALITY

The physicochemical properties of Lake Angela and its two distinct basins are poorly characterized; although DSPUD periodically collects raw water samples on the facility's intake from the southern basin (2008-2020, n = 8 samples). These few raw water intake samples are likely representative of water quality conditions in Lake Angela's southern basin. However, the hypolimnetic water withdrawal for treatment and movement of water from the northern basin into the southern basin can affect the water quality conditions observed in raw water intake samples. Nonetheless, the water quality results show a high quality drinking water source absent of organic contaminants, albeit with characteristics representative of its watershed and sediment conditions. The bicarbonate-carbonate-alkalinity concentrations show a weakly buffered lake that is low in ionic strength (i.e., conductivity) and hardness (i.e., calcium and magnesium). The metals that readily bind to phosphorus were typically present in detectable concentrations of raw water samples, but less than their maximum contaminant level for drinking water. Notably, the highest concentrations of iron and manganese, including total dissolved solids appeared to occur when the lake's elevation was relatively low and storing less water, and likely represented a mixed water column, post fall turnover (Sauers Engineering, 2021). The nutrient water chemistry data that are important for understanding the algae dynamics in Lake Angela are not available. Only nitrate-nitrite analyses were performed which represent only a fraction of the bioavailable total inorganic nitrogen component that that supports algae growth. No phosphorus analyses were performed on raw water samples.

3.3.3 ALGAE

Little to no information exists on the algae population dynamics in Lake Angela other than the lake has experienced infrequent nuisance algae blooms that resulted in raw water treatability issues (i.e., turbidity). In 2009, the nuisance alga was identified as Chlorella sp., a micro-green alga (2 10 µm spherical cell) that is common in high elevation lakes and is well adapted to low concentrations of inorganic nitrogen, soluble reactive phosphorus, and minerals. The lake also contained Oocystis sp., a green alga (10-20 µm ellipsoid cell), and three diatom genera–Navicula, Cocconeis, Cyclotella, that represent both pennate and centric cells (10-75 µm). In July 2016, Lake Angela experienced a similar nuisance algae bloom causing treatability issues, although the algal taxa were not identified.

3.4 LIMNOLOGY AND WATER QUALITY OF SIERRA NEVADA LAKES

External Nutrient Inputs

The soil nutrient contents and fluxes from the semiarid forest are relatively low compared to other northern temperate forest types (Johnson et al. 1997). However, the atmospheric deposition of nitrogen and phosphorus, from sources outside of the watershed, represents a relatively large fraction of the watershed nutrient budgets and inputs to high elevation lakes in the Sierra Nevada mountain range (Sickman et al. 2003). Sources for the atmospheric deposition include motor vehicle emissions, wind-blown dust,–pollen, and–organic matter, along with ash particulates from wildfires. In fact, the aeolian deposition of biologically available total inorganic nitrogen and soluble reactive phosphorus inputs to Sierra Nevada Lakes have been directly linked to regional forest fires (TREC 2022) which provides an external nutrient source to the lake's algae population. The atmospheric deposition within the watershed, along with the natural decomposition of organic matter, is "flushed" into Sierra Nevada lakes during spring snowmelt or rainfall runoff. These external nutrient sources have contributed to the general pattern of nutrient enrichment in lakes throughout the Sierra Nevada mountain range (Sickman et al. 2003), including Lake Angela. When this pattern of nutrient enrichment is placed into the context of a warmer climate, small changes in ice-cover duration, spring snowpack and timing of snow-melt runoff (Null et al. 2010), surface water temperature (Sadro et al. 2019), and light availability can have a large influence on algae production in the oligotrophic lakes of the Sierra Nevada mountain range (Goldman et al. 1993, Sickman et al. 2003, Goldman 2000). If dry-year type conditions continue to be more frequent, high elevation lakes in the Sierra Nevada (like Lake Angela) will continue to become more productive of algae (Sadro et al. 2019).

Internal Nutrient Inputs

Lake Angela may typify a small lake in the northern Sierra Nevada mountain range; however, little information exists describing the physicochemical characteristics of the lake or the hydrological processes that influence external nutrient inputs or possible internal nutrient loading from the lake sediments. Considering that the nutrient inputs from the watershed are likely small, the internal nutrient release may provide a substantive component of the nutrient mass balance that facilitates algal productivity during late summer or early fall. The long-term accumulation of organic matter at the bottom of the lake, supported by the annual cycle of algae growth–death–settling and nutrient recycling by aquatic life use (i.e., zooplankton and fish), has likely created a sediment layer that stores phosphorus bound to organic matter and mineral-oxides during oxygenated lake conditions. The sediment phosphorus content in high elevation, Sierra Nevada lakes, is sufficiently large enough (~1,450 mg/kg sediment) to provide a substantive internal nutrient loading component under redox conditions (Homyak et al. 2014). Approximately 30 percent of the sediment-bound phosphorus content is in the freely exchangeable and redox-sensitive iron-, manganese-oxides pool, while 70 percent is in the more recalcitrant aluminum- and calcium-oxides and non-reducible organic matter pool. Aluminum-bound phosphorus comprises the

largest component of the recalcitrant pool in Sierra Nevada lakes (Homyak et al. 2014), effectively sequestering phosphorus that is not affected by redox conditions (Kopacek et al. 2005). The metals (e.g., iron, manganese, aluminum) along with calcium and silicates (important for diatom growth) are byproducts of natural weathering of the surrounding geology in the watershed.

Thermal Stability

Lake Angela is a small cold-water lake that exhibits a winter ice-covered period and two seasonal mixing periods (spring and fall). The two basins, separated by a sill, likely influence the thermal characteristics of Lake Angela and certainly influence the general spring warming and ice-off characteristics as evident in the satellite images (Figure 3-1). The lake is deep enough to exhibit thermal stratification during the summer months such that a density gradient separates the warmer upper water layer (epilimnion) from the colder bottom layer (hypolimnion). When the density gradient (thermocline) is resistant to mixing, the hypolimnetic dissolved oxygen content may be depleted by microbial respiration creating a low dissolved oxygen environment. When this condition persists, the microbial reduction of organic matter and metal oxides (e.g., freely exchangeable and redox-sensitive iron and manganese) as an electron source (i.e., energy) occurs in the sediment, releasing soluble reactive phosphorus, iron and manganese. These constituents diffuse across the sediment/water interface and into the overlying water column. When the hypolimnion remains stable and unmixed during the summer, the nutrient and metals concentrations can increase to levels that facilitate algae growth or influence water treatment, when the hypolimnion becomes mixed with the epilimnion in the fall. Other hydrological factors that can influence the water column stability, includes hypolimnetic withdrawal or stormwater inputs, causing temporary mixing of the water column or intrusion of water to deeper depths. These factors may be evident in Lake Angela when redox favorable conditions persist given the two distinct basins.

Algae

Despite the oligotrophic status of most Sierra Nevada lakes, there is evidence that algal productivity is increasing (Goldman et al. 1988, Goldman 2000, Derlet et al. 2009), concurrent with the increasing trends in nitrogen deposition (Sickman et al. 2003) and climate warming (OEHHA 2022). While reactive nitrogen deposition has be linked to changes in diatom assemblages of high elevation lakes (Winder et al. 2008, Olesky et al. 2020), the pronounced changes in other algae assemblages indicates additional drivers remain largely undocumented (Sadro et al. 2018). Algae populations in high elevation lakes are seasonally variable, with diatoms (single-celled, hard-bodied algae with silica based cell walls) typically the most abundant algae in the spring due to the mixing, nutrients, and light availability following seasonal ice-off conditions (Winder et al. 2009, Sommer 1989). Peak algae biomass typically occurs in late summer, and is usually associated with a shift from diatoms to small, soft-bodied unicellular chlorophytes (green algae) that are better adapted to the relatively stable water column and low nutrient and mineral concentrations (McKnight et al. 1990). The transition to the fall algae assemblage can contain a mix of chlorophytes, chrysophytes (golden algae) and cyanobacteria (Dory et al. 2022, McKnight et al. 1990), while the winter algae are often comprised of small motile cryptophytes and chrysophytes that are adapted to low light conditions, and can exhibit mixotrophy (i.e.,

consume bacteria to obtain carbon source rather than rely solely on photosynthesis). Oligotrophic conditions tend to provide a competitive advantage of small-bodied algae over the larger filamentous chlorophytes or cyanobacteria.

3.5 WATER QUALITY RISKS AND RECOMMENDATIONS

3.5.1 WATER QUALITY RISKS

Nuisance algae levels such as the ones observed in 2009 and 2016 can result in several water treatment problems such as taste and odor, formation of disinfection-by-products (e.g., trihalomethanes and chloroacetic acids), clogging of filter beds (Hung and Liu 2006), or biofouling and cake formation on filtration treatment systems (Shekhar et al. 2017). In addition to the size and shape of algal cells, algal organic matter [(i.e., metabolic byproducts and ruptured cells), dissolved organic carbon], and other particles affect the filtering efficiency and lifespan of microfiltration treatment systems (Novoa et al. 2021). As a result, a mix of physical and chemical biofouling control strategies are key to the long-term operation of water treatment systems. These approaches may include membrane cleaning (i.e., backwash, air scouring), chemical pretreatment (i.e., ozonation, oxidation, coagulation, in-lake algaecides), operational controls (i.e., cross flow velocity, induced shear stresses), or composite treatment systems [(i.e., coagulant + activated carbon pretreatment), Novoa et al. 2021]. In both instances, when raw water from Lake Angela created treatability issues, the nuisance algae levels were effectively controlled using chemical algaecides that reduced the water treatment issues. However, the algaecide control strategies are often reactionary in nature and occur after water treatment issues arise. Therefore, a mix of control strategies that include both proactive and reactive treatment options should be considered for risk planning purposes.

To summarize the potential risks to Lake Angela water supply and treatment for drinking water purposes, the risks include both external and internal mechanisms:

- **Mechanism:** Atmospheric deposition is increasing the nitrogen and phosphorus content in Sierra Nevada watersheds and lakes
  Risk: Promotes algae growth and biomass
- **Mechanism:** Ash deposition from regional wildfires is increasing the nitrogen and phosphorus content, including particulates in Sierra Nevada watersheds and lakes
  Risk: Promotes algae growth and biomass, increases particulates that affect treatability of water
- **Mechanism:** Climate warming is increasing the variability in dry- and wet-year type conditions, and influencing the timing of snow-melt runoff, stream flows, and water storage in Sierra Nevada watersheds and lakes
  Risk: Reduce water availability during consecutive dry-years, increase surface water temperature promoting algae growth and biomass
- **Mechanism:** Bathymetry of Lake Angela and its two distinct basins separated by an interconnective ditch influence water circulation
  Risk: Reduced capacity for mixing during low lake levels can affect water quality

- **Mechanism:** Basin morphology and water withdrawal from the southern basin may influence lake stratification during the summer. Southern basin may be mixed while the northern basin remains stratified
  Risk: Increase potential for internal nutrient loading that promotes late season algae growth, release of iron and manganese that affect treatability of raw water
- **Mechanism:** Deep water withdrawal from the southern basin can influence water circulation patterns and promote the movement of warmer epilimnetic water from the northern basin to the southern basin
  Risk: Warmer epilimnetic water is more suitable for nuisance algae growth
- **Mechanism:** Increasing trends in nutrient availability, increases the likelihood developing nuisance algae levels in July and August
  Risk: Increase the potential for taste and odor issues, affect the treatability of raw water

3.5.2 RECOMMENDATIONS

As the hydrology and water quality data for Lake Angela is limited, monitoring and a water quality assessment study are recommended to improve DSPUD's understanding of the dynamics that affect the ecology and steady-state conditions of the lake. In-lake and operational control strategies are also provided to help manage water quality risks.

3.5.2.1 MONITORING

A key component of a lake water protection plan is having a good understanding of the hydrological and water quality conditions that influence the summer algal growing season. This begins with documenting the volume of inflows (i.e., translation of lake level to storage volume) and outflows (i.e., withdrawal and spillway overflows) which better characterizes the water budget, hydraulic residence time, and the time that algae have to respond to favorable growing conditions.

The establishment of two in-lake monitoring sites, one in each basin over the deepest location, and performing one sampling event per month during the July-August-September algal growing season is also recommended. In addition to the lake monitoring, corresponding water samples should be collected from the facility's raw water intake and analyzed for the same constituents discussed below.

The collection of water quality data is recommended at each monitoring site to document water temperature, dissolved oxygen, specific conductivity, pH, and oxidation reduction potential on 1 foot increments from the surface to the near bottom water (i.e., within 2 feet of the sediment). These data will help characterize any thermal stratification or density gradients that may limit whole water column mixing, and if thermally stratified, whether the hypolimnion exhibits low dissolved oxygen and redox favorable conditions. Collection of a near-surface water sample (1 ft below the surface), and a near-bottom water sample (within 2 ft of the sediment) and analyzing the samples for nutrients (total and dissolved organic/inorganic nitrogen and phosphorus fractions, lowest detection limits possible), total recoverable and dissolved iron and manganese, turbidity, and chlorophyll-a content (only near-surface sample) is also recommended. These data will help determine whether conditions are favorable for internal nutrient loading that may facilitate late season algae growth or affect taste and odor due to algae or metals. If Lake Angela

experiences a nuisance algae bloom or is impacted by ash deposition from wildfires, then the frequency of monitoring should be increased to better characterize the potential effect on Lake Angela and water treatment. Supplemental algae identification data collected during a nuisance bloom would also be helpful to characterize the potential effect on water treatment, especially considering if cyanobacteria are present in Lake Angela. Cyanobacteria may require special considerations for water treatment, such as the presence of cyanotoxins.

3.5.2.2 WATER QUALITY ASSESSMENT STUDY

Ideally, in-lake water quality monitoring should be a continuous part of a source water protection plan; however, there are economic and feasibility challenges associated with implementing and maintaining a source water monitoring program for small water districts. Therefore, a water quality assessment study is recommended to better characterize the limnological conditions of Lake Angela. This study may require at least two summers of water quantity and quality monitoring data to better characterize the potential risk of internal nutrient loading and potentially additional spring-time monitoring to characterize the nutrient and metals concentrations following spring snowmelt and runoff. The paired sampling routine (intake and lake water analyses) would help identify how the water quality characteristics in the northern basin influence the southern basin, or the lake as a whole, and whether the water quality in the southern basin is adequately represented by the raw water intake samples. A better understanding of how water quality conditions change and what influences them from a hydrological or water circulation standpoint will better inform the in-lake and water treatment process. Depending on the findings from the water quality assessment study, it may be practicable to modify the monitoring program and to only monitor the facility's raw water intake, if there are no significant differences between the intake chemistry and chemistry observed in the lake.

3.5.2.3 CONTROL STRATEGIES TO MANAGE RISK

Based on information gleaned from the water quality assessment study and considering that nuisance algae blooms and ash deposition present the greatest risk to a sole source water treatment facility, a mix of proactive and reactive control strategies should be considered for resiliency planning purposes. These strategies should include options for both in-lake and operational controls and are described in greater detail in Appendix A. Potential in-lake control strategies include the use of algaecides or ultrasonic soundwaves, an emerging technology to preemptively control the development of algae. Operational controls include closing the raw water intake in Lake Angela when treatability is poor, along with other operational changes associated with water treatment.

4 IDENTIFICATION OF POTENTIAL WATER SUPPLY SOLUTIONS

DSPUD identified a suite of potential water supply solutions to address the drought and water quality risks identified in Chapter 2 and 3. These potential solutions include permanent solutions, which may address the requirements of SB 552, and short-term solutions, which are not likely to address the requirements of SB 552 but could reduce the District's vulnerabilities related to climate change and drought.

4.1 POTENTIAL PERMANENT SOLUTIONS

4.1.1 GROUNDWATER

California's diverse natural environment is due in part to the complex geologic processes that have shaped the landforms of the State. California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. There are eleven geomorphic provinces in California based on each regions defining features based on geology, faults, topographic relief, and climate.

DSPUD is in the Sierra Nevada Geomorphic Province in California which consists of a tilted fault block nearly 400 miles long. Its east face is high and rugged with multiple scarps, contrasting with the gentle western slope that disappears under sediments of the Great Valley Province. The granitic rocks of the Sierra Nevada batholith include older, deformed diorite and quartz in the western areas and younger undeformed granodiorite in the eastern areas.

A search for reports on the groundwater resources in the DSPUD service area did not identify any reports in the direct area. Limited reports are available regarding groundwater in hard rock environments such as those within the District. Information from those reports was used to complete this summary of the hard rock aquifer system.

There are some alluvial valleys located within the Sierra Nevada that are identified as groundwater basins by the California Department of Water Resources (DWR). These basins may be considered as potential sources of groundwater. The groundwater basin closest in proximity to the DSPUD service area is the Martis Valley Groundwater Basin. The groundwater potential from both the underlying hard rock geologic environment and the nearby Martis Valley Groundwater Basin are described in the following sections.

Martis Valley Groundwater Basin

The Martis Valley Groundwater Basin (Basin Number 6-067) is located about six miles east of DSPUD as shown on Figure 4-1. The District is about 7,200 feet above msl and is located west of the crest of the Sierra Nevada (at about 7,700 feet msl). The Martis Valley Groundwater Basin has an elevation around 5,700 feet msl and is located east of the crest of the Sierra Nevada crest. The description of the Martis Valley Groundwater Basin below is provided from the DWR California Water Plan – Groundwater Update 2013.

The Martis Valley Groundwater Basin (6-067) is located in Placer and Nevada counties covering approximately 36,381 acres. The groundwater basin is a fault-bounded basin located east of the Sierra Nevada crest. The elevation of Martis Valley is between 5,000 feet and 6,000 feet above msl. The mountains surrounding the Martis Valley are 1,000 feet above msl to more than 3,000 feet above msl. Average precipitation in the valley is 23 inches in the lower elevations of the eastern portion and nearly 40 inches in the western areas. Well-yield data from well completion reports indicate that groundwater production in the Martis Valley Groundwater Basin can be as much as 1,500 gallons per minute (gpm), with an average yield of 150 gpm.

The primary groundwater-bearing formations in the Martis Valley Groundwater Basin are the Miocene to Pliocene basin fill deposits interbedded with sediments of stream and lake deposits. There is also extensive Pleistocene glacial material and recent alluvial material that have embedded impermeable clay and silt layers.

Groundwater in the DSPUD Service Area

Surface Geology

The DSPUD area is generally underlain by granitic rocks composed of quartz diorite and granodiorite and some metamorphosed rocks. When exposed at the ground surface, both of these rock types have joints and fractures. The joints and fractures occur near the ground surface as a result of reduced pressure from the overburden being removed (compared to where they were formed at depth) resulting in the rocks expanding creating the joints and fractures. Various studies suggest that the joints and fractures occur to a depth of about 200 to 250 feet below the ground surface.

Occurrence and Movement of Groundwater

Granitic and metamorphic rocks do not have the alluvial deposits of aquifers in groundwater basins, and their porosity is limited to the secondary porosity created by the joints and fractures occurring within the rocks so they yield little, if any, water to wells unless the wells intersect the fractured or weathered joints and faults. As a result of the limited porosity, the more favorable well sites occur at the saturated intersections of the joints and fractures. Additionally, deeper wells do not significantly increase the yield of wells as there are fewer joints and fractures at depth.

Recharge and Discharge of Groundwater

Groundwater in the area moves primarily through the fractures in the hard rock and is recharged by rain and melting snowmelt. In general, the movement of ground water parallels the land surface as the groundwater flows from areas of higher elevation toward areas of lower elevation. DSPUD is located near the crest of the Sierra Nevada

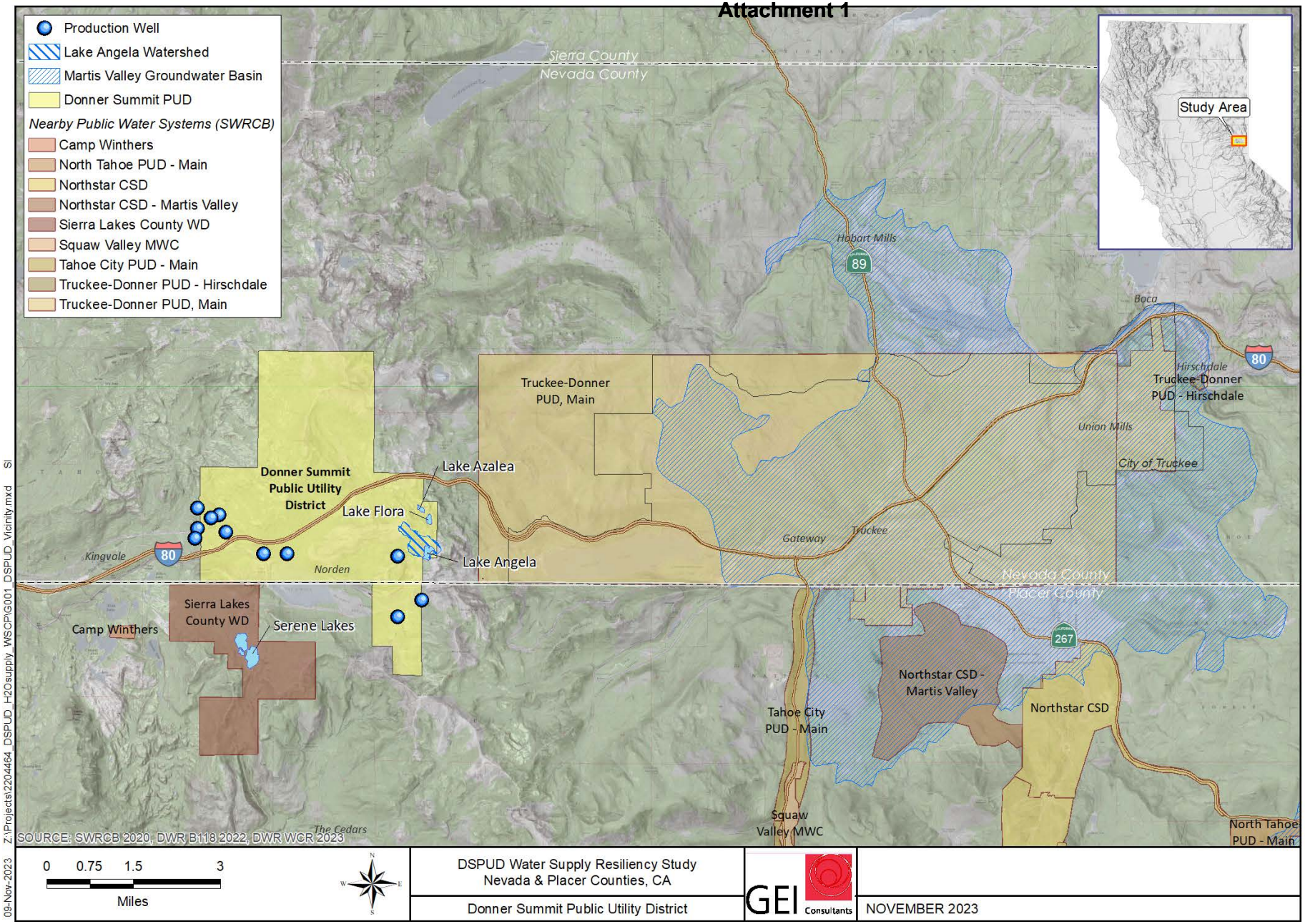

Figure 4-1. Groundwater Wells in DSPUD Service Area and nearby Public Water Systems

Notes: PUD = Public Utilities District, WD = Water District, MWC = Mutual Water Company, CSD = Community Services District, SWRCB = California State Water Resources Control Board

and likely behaves as a groundwater divide with groundwater moving downslope away from the ridges towards discharge areas including wells, springs, or lakes.

Groundwater Wells in DSPUD Service Area

The DWR Sustainable Groundwater Management Act (SGMA) Data Viewer provides information related to the Well Completion Reports (WCRs) of wells drilled throughout the state. These include production wells in addition to monitoring wells and wells that have been destroyed.

A review of the of the SGMA Data Viewer identified the location of eleven WCRs of production wells in the District service area (see Figure 4-1). Numerous monitoring wells and destroyed wells are also present within the District. Information from the WCRs for the production wells is provided in Table 4-1. The Depth to Water, Depth to Static Water Level and Yield presented on the WCRs are recorded during the well drilling and development process. The depth to water and well yield vary annually and seasonally based on hydrologic conditions and the amount of groundwater pumping. There are no records of the current groundwater levels or well yields for wells in the District on the DWR SGMA Data Viewer.

Table 4-1. Summary of Well Completion Reports in the DSPUD Service Area

WCR Number	PLSS MTRS[1]	Purpose	Depth (feet)	Depth to Water (feet)	Depth to Static Water Level (feet)	Yield (gpm)
454564	17N14E16	Domestic	350	50		6
108066	17N14E15N	Domestic	305	36		5.5
e0322489	17N17E12	Domestic	275	60		15
924720	17N14E22	Domestic	480	130		10
e0363903	17N14E21	Domestic	345	18		40
789412	17N14E22	Domestic	585	434	200	60
2018-007198	17N14E23	Domestic	652	240	85	20
33914	17N14E23	Domestic	175	37		4
e0113690	17N15E17	Public	500	35	375	45
749305	17N15E21	Domestic	240	30	25	45
433360	17N15E20	Public	300	12		35
	Average		382	98	171	26
	Min		175	12	25	4
	Max		652	434	375	60

1 Public Land Survey System Meridian, Township, Range, Section

Dry Wells in DSPUD Service Area

The DWR Dry Well Reporting System is for Californians experiencing problems with their private (self-managed) wells (not for residents served by a public water system already regulated by the State). Dry wells can be caused by many drought and

non-drought factors, including aging infrastructure like corroded wells, declining groundwater levels, changes to weather patterns and climate, or surface water and groundwater management.

4.1.2 ALTERNATIVE SURFACE WATER SUPPLIES

4.1.2.1 LAKE ANGELA EXPANSION

Lake Angela spills almost every year, presenting the opportunity to capture this additional supply by expanding the capacity of Lake Angela. The District currently operates using its senior Pre-1914 water right which appears to allow the District to directly divert up to 9.3 cubic feet per second (cfs) and divert to storage up to 310 AF per year. The additional water supply needed for the expansion of Lake Angela could already be authorized by its permitted water right (Application 30332, Permit 21118). The permitted right allows the District to directly divert up to 1.54 cfs between November 1 through June 1 and divert up to 310 AF to storage collected from November 1 through July 31.

4.1.2.2 DEVELOPMENT OF NEARBY NATURAL LAKES

There are two natural lakes in immediate proximity to Lake Angela. Flora Lake, located about 0.4 mi north of Lake Angela, and Azalea Lake, located about 0.1 mi northwest of Flora Lake (see Figure 4-1), could be used as a backup supply to the District. Azalea Lake spills into Flora Lake which then spills to a drainage that flows to Donner Lake and ultimately to the Truckee River. Because these lakes are within the Truckee River watershed, supplies from these lakes are not subject to Sacramento – San Joaquin Delta watershed curtailments nor would they be subject to agreements with Nevada Irrigation District and Pacific Gas and Electric. Water from these lakes could be pumped to Lake Angela or directly to the District's water treatment plant in an emergency. Currently, the potential water supply volume from these lakes is unknown. Any water supplies from these lakes would require new water rights.

4.1.3 INTERTIE WITH SIERRA LAKES COUNTY WATER DISTRICT

As shown in Figure 4-1, Sierra Lakes County Water District (SLCWD) is located adjacent to DSPUD. The water supply lines for DSPUD and SLCWD are approximately one mile apart, thus an intertie with the SLCWD is another potential source of backup water supply for the District. The primary source of SLCWD's water supply is Lake Serena, one of the two connected waterbodies that comprise Serene Lakes located in the North Fork American River watershed. Lake Serena sits on Donner Summit at an elevation of 6,881 feet and is located about 3.5 miles southwest of Lake Angela and 1.7 miles south of Interstate 80 (see Figure 4-1). SLCWD holds water rights (Application 20601, Permit 14248) to Lake Serena that include a direct diversion of up to 0.8 cfs capped at 394 AF per year and diversion to storage of up to 783 AF per year. The combined volume of the direct diversion limit and diversion to storage limit allows for the development of up to 1,177 AF per year. The season of diversion for these rights is October 1 through June 30.

According to SLCWD annual reports, annual average usage over the past five years is less than 100 AF, which provides the opportunity to support delivery to DSPUD in an emergency. Conversely, with water rights of up to 664 AF per year and a current

demand of about 240 AF per year, DSPUD currently has an excess supply and could also support SLCWD deliveries in an emergency. To support an intertie between DSPUD and SLCWD, both districts would need to amend their water rights by filing a petition with the SWRCB to include the place of use of the partnering district in their respective place of use.

4.1.4 RECYCLED WATER

DSPUD owns and operates a wastewater treatment plant (WWTP) which is used to treat municipal wastewater generated within the District's service area. The WWTP is located at the District's office location on the north side of Interstate 80, northwest of the Soda Springs Mountain Resort (see Figure 4-2). DSPUD's WWTP was constructed in 1988 with an original design capacity of 1 million gallons per day (mgd); however, in the mid-2010's, regulatory updates with regards to filtration rates at the WWTP reduced the design capacity from 1 mgd to 0.6 mgd. This reduced capacity compounded with the District's water quality challenges and the lack of a pre-treatment process at the WWTP made it difficult at times to keep pace with demand. Consequently, in 2015 the WWTP was upgraded with two new treatment trains. The treatment trains utilize membrane filters and microfiltration followed by ultraviolet disinfection to produce tertiary treated recycled water that meets Title 22 standards. With these improvements, the District's WWTP can process up to 1.27 mgd during peak demand periods, with a design average dry weather flow capacity of 0.52 mgd.

Tertiary treated wastewater from the District's WWTP is either discharged to the South Yuba River or used to spray irrigate a portion of the Soda Springs Mountain Resort (see Figure 4-2). DSPUD has a 30-year lease agreement (signed in 2008) with the landowner, Boreal Ski Corporation. The lease encompasses 125 total acres, of which approximately 53 acres are used for irrigation. Additionally, when conditions allow, DSPUD reclaims the tertiary treated wastewater by sending it to the Soda Springs Mountain Resort for snowmaking. In lieu of discharging or reclaiming the water for snowmaking, the water could be reclaimed and introduced back into the District's system to meet consumptive demands. Options for reintroducing the water back into the District's system could include pumping the water back up to Lake Angela, or pumping the water to a new storage tank in the system. This option would require an amendment of the District's National Pollutant Discharge Elimination System permit with the Central Valley Regional Water Quality Control Board, which allows for the discharge of tertiary treated wastewater and using reclaimed water for snow making. An amendment of the District's Title 22 Engineering Report, which is required to be submitted to the Central Valley Regional Water Quality Control Board and other agencies prior to implementing recycled water projects, would also be required.

4.1.5 WATER SHORTAGE CONTINGENCY PLAN

In 1983, the State of California Legislature enacted the Urban Water Management Planning Act. The law requires urban water suppliers, providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet annually, to adopt an Urban Water Management Plan (UWMP) every five years demonstrating water supply reliability in normal, single dry, and multiple dry water years. As part of the UWMP, each urban water supplier must develop a Water Shortage Contingency Plan (WSCP) that outlines a framework for managing water supplies to minimize the adverse

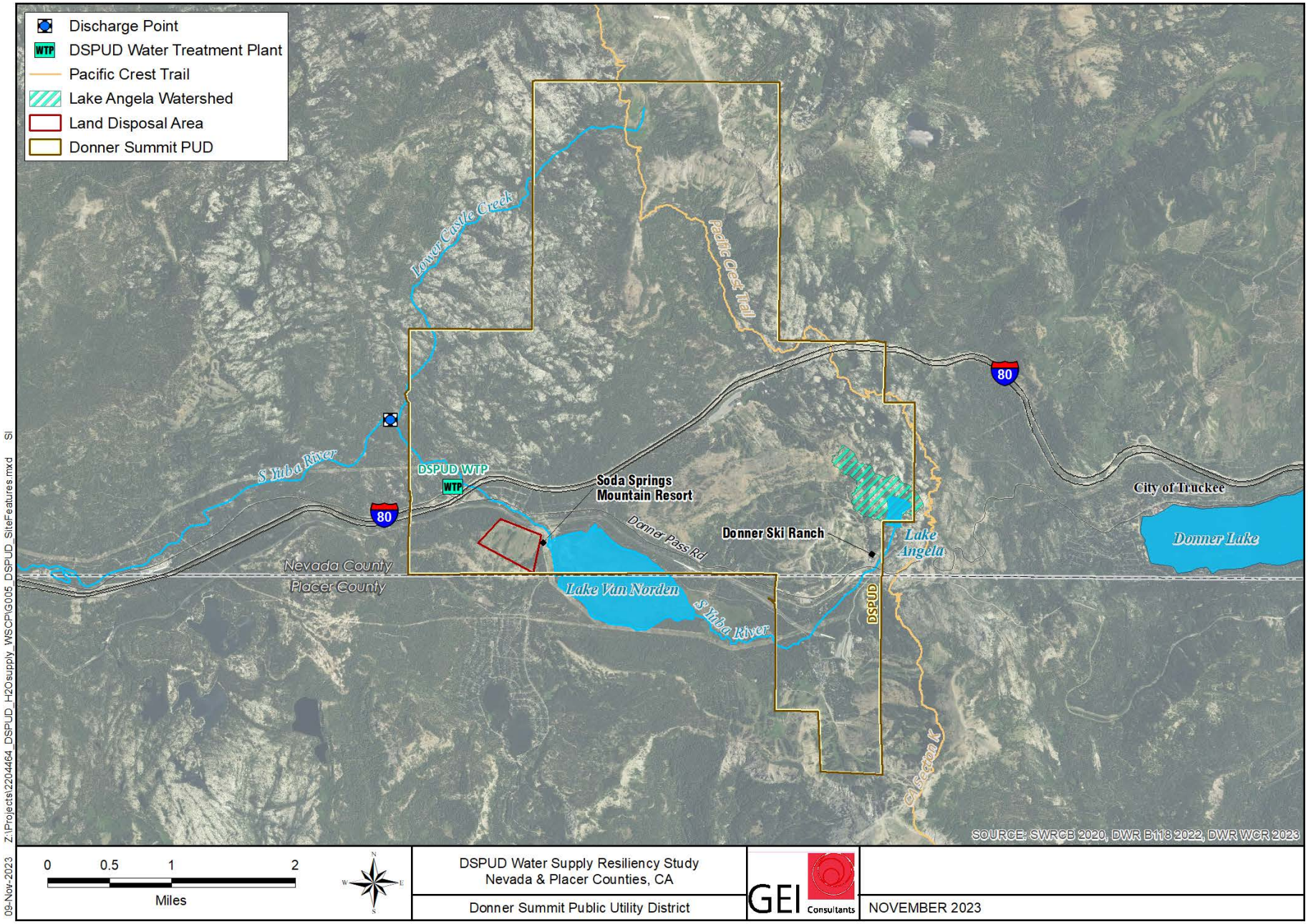

Figure 4-2. Wastewater Discharge Locations

impacts of water shortages. This framework includes the identification of drought response actions which are used to reduce demand under water shortage conditions, and the water shortage levels/triggers that are used to initiate these actions.

As previously stated in Chapter 2, results from the drought risk evaluation indicate that development of a WSCP could help reduce the District's vulnerability to drought. Unlike their larger counterparts, small water suppliers have not been required to maintain a WSCP. However, with the passage of SB 552 in 2021, small water suppliers which serve 1,000 to 2,999 connections are now required to prepare and update an abridged WSCP. The abridged WSCP covers a subset of drought-planning elements included in the WSCPs that urban water suppliers submit as part of their UWMP, including:

- **Drought planning contacts**
- **Triggering mechanisms and levels for action, including:**
  - Standard water shortage levels corresponding to progressive ranges based on the water supply conditions
  - Water shortage mitigation, response, customer communications, enforcement, and relief actions that align with the water shortage levels

While the District is not required to prepare an abridged WSCP under SB 552, serving only 360 domestic water customers, an abridged WSCP would serve as a long-term solution for reducing vulnerability during droughts or other catastrophic events that impact water supply.

4.2 POTENTIAL SHORT-TERM SOLUTIONS

Short-term solutions identified as part of this study include the provision of hauled/bottled water.

4.2.1 HAULED/BOTTLED WATER

According to the SWRCB's 2022 Drinking Water Needs Assessment, roughly 90 water providers across California had to resort to bottled or hauled in water to meet consumptive demands during the last drought. Similar to DSPUD, one of the most important vulnerabilities that the majority of these water providers share is that they have only one source of water.

Hauled and/or bottled water can help to augment, or replace, supplies under acute water shortage or emergency conditions. There are generally two options for water delivery: water hauled in via tanker truck, which is generally more suitable to meet household needs, or bottled water trucked on pallets.

Hauled and/or bottled water could serve as a short-term water supply solution in the event of a catastrophic water shortage or emergency; however, it would not serve as a long-term solution for DSPUD to enhance their water supply reliability, nor would it meet SB 552 requirements related to securing a backup water supply or water system intertie by January 1, 2027.

5 EVALUATION OF WATER SUPPLY SOLUTIONS

5.1 PRELIMINARY SCREENING OF WATER SUPPLY SOLUTIONS

The water supply solutions selected for further exploration were identified based on a preliminary evaluation. This evaluation eliminated solutions based on two key criteria:

1. Feasibility, i.e., does this option advance the goals of the study (does it respond to the impacts from drought and climate change while meeting the requirements of SB 552 to develop a backup water supply or intertie by 2027) and/or are there considerations that would make the option infeasible.
2. Redundancy, i.e., are there better options available to meet the same goals.

Below are the solutions that have been eliminated from further evaluation with a brief reason for their elimination:

- **Groundwater** (eliminated due to feasibility): the groundwater basin closest in proximity to the DSPUD service area is the Martis Valley Groundwater Basin (Basin Number 6-067). This basin is located about six miles east of DSPUD and about 2,000 feet below in elevation. The topographical change and distance from the District's treatment facility are limiting factors when it comes to cost. The pump station required to overcome the elevation change along with the six miles of piping over the terrain would increase costs such that this option would be economically infeasible.
- **Lake Angela Expansion** (eliminated due to feasibility): increasing the capacity of Lake Angela is anticipated to satisfy the additional water supply necessary to meet demand increases due to forecasted population growth, as well as allowing for climate change projection runoff pattern changes. However, the increase in storage may not satisfy all the requirements of SB 552 in relation to developing a backup water supply by January 1, 2027.
- **Development of nearby lakes** (eliminated due to redundancy): currently, the potential water supply volume from these lakes is unknown. Moreover, any water supplies from these lakes would require new water rights.
- **Recycled water** (eliminated due to feasibility): a preliminary evaluation of this option suggests that introducing the tertiary treated water back into Lake Angela would require a pump station, with around 560 feet of elevation gain, and around 4.0 miles of pipeline. The topographical change and distance from the District's treatment facility are limiting factors when it comes to cost. Moreover,

the use of tertiary treated wastewater may not satisfy all the requirements of SB 552 in relation to developing a backup water supply by January 1, 2027.

- **Water Shortage Contingency Plan** (eliminated due to feasibility): development of a WSCP would provide the framework for future water conservation, but it would not serve as an additional water supply or meet the requirements of SB 552.
- **Hauled/Bottled Water** (eliminated due to feasibility): the provision of hauled/bottled water would help to reduce vulnerability during a catastrophic water shortage, but would not serve as a viable long-term water source of supply for the District, nor would it meet the intent of SB 552.

While neither the development of a WSCP or the provision of hauled/bottled water would serve to meet the goals of this study, these solutions could result in reduced vulnerability during droughts or during other catastrophic events that impact water supply. Consequently, DSPUD has prepared an abridged WSCP as part of this study (see Appendix F). The abridged WSCP includes a framework of triggers, water reduction targets, and response actions to help DSPUD manage and mitigate an actual water shortage condition, should one occur because of drought or other impacts on water supplies. As part of the development of DSPUD's abridged WSCP, the District has also developed a catastrophic water allocation plan. The catastrophic water allocation plan will be used to allocate water in the event that water shortage conditions threaten public health and safety, which includes the provision of hauled/bottled water as an interim alternative water supply to meet short-term public health needs. Consequently, the estimated costs associated with providing hauled/bottled water to meet public health and safety demands were developed as part of this study (see Appendix D).

5.2 EVALUATION OF WATER SUPPLY SOLUTIONS

The intertie with SLCWD was identified as the only option for evaluation following the preliminary screening. Evaluation of this potential water supply includes the identification of conceptual infrastructure requirements, development of reconnaissance level (Class 5) cost estimates, and an evaluation of the intertie using the model developed as part of this study as described in Section 2.1.

5.2.1 INTERTIE WITH SIERRA LAKES COUNTY WATER DISTRICT

5.2.1.1 INFRASTRUCTURE REQUIREMENTS

Conceptual infrastructure requirements for the intertie with SLCWD are summarized below.

- The location of the connection to the SLCWD water system would occur in the northeastern corner of their water system, at the intersection of Pahatsi Rd and Soda Springs Rd (see Figure 5-1). The existing elevation at this location is approximately 6,944. See Figure 5-1 for new pipeline and intertie locations.

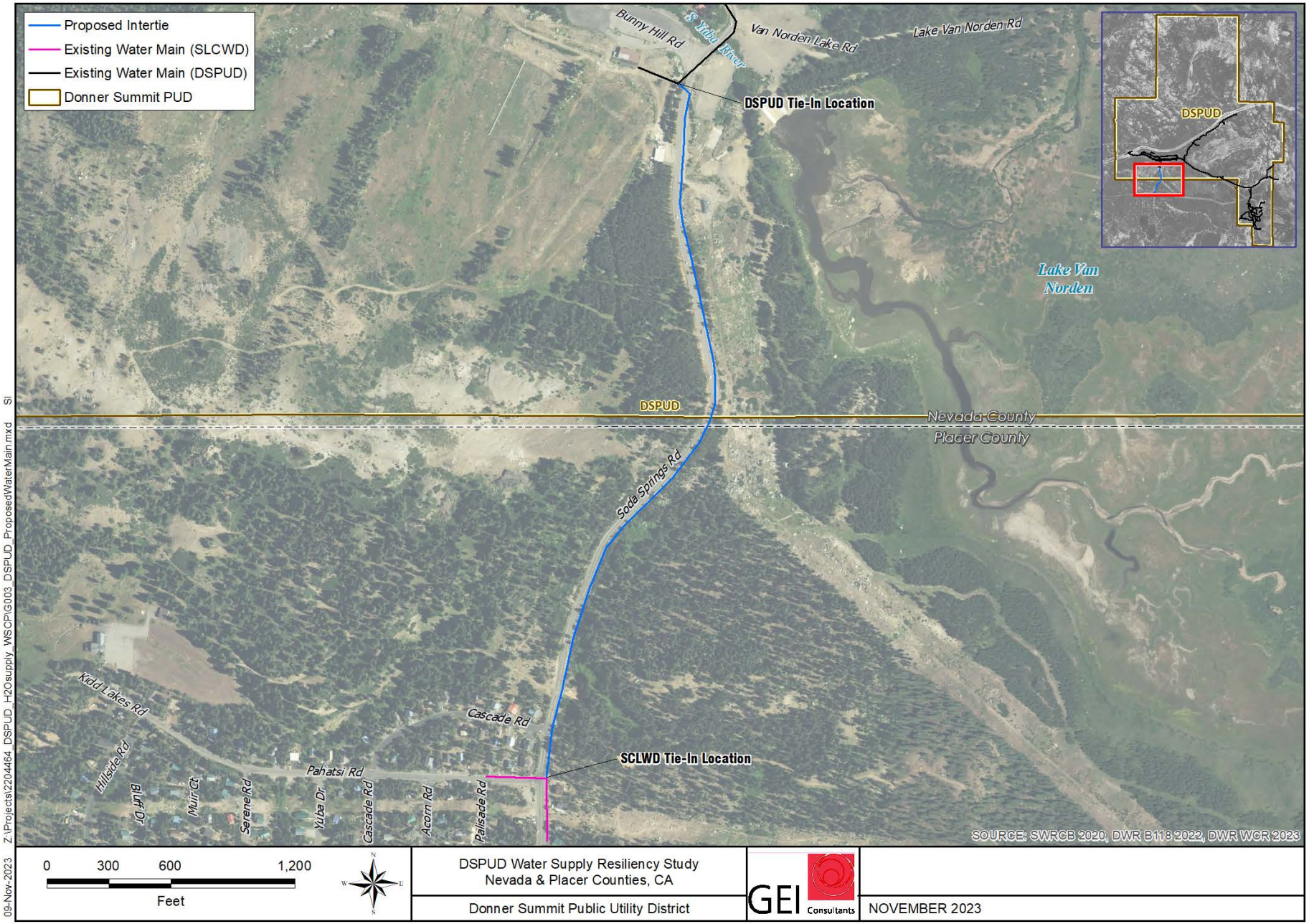

Figure 5-1: Sierra Lakes County Water District Intertie Conceptual Location and Alignment

- The new intertie would require a minimum of an 8-inch main built from high-density polyethylene that would be installed via open cut excavation and placed along Soda Springs Road, going north for approximately 0.8 miles. The connection to the DSPUD water supply system would occur south of the town of Soda Springs at the intersection of Bunny Hill Rd and Soda Springs Rd. The elevation at this intersection is 6,765.
- Since the system tie-in is below the existing system at SLCWD, a booster pump station would not be required to meet demands. For the DSPUD system to serve as a backup source for SLCWD, a booster pump station could be required to pump water back and forth from the two systems. This booster pump station is estimated to cost around $150,000 assuming a 100 foot raise in elevation with a capacity of 100 gpm.
- If the existing line at the intersection of Bunny Hill and Soda Springs is less than 6 inches, an additional 0.1-miles of pipeline would be required to tie into the system in Soda Springs. The additional pipe cost will not be significant, but the additional pipeline would require crossing the railroad line that traverses south of the town of Soda Springs (see Appendix D for more details). The costs associated with permitting and impacts on construction schedules could be significant. Cost estimates for an intertie with SLCWD assume directional drilling beneath the existing railroad will not be required.

5.2.1.2 ESTIMATED COST

The total estimated cost for an intertie with SLCWD is estimated at $835,000 (Table 5-1). This cost estimate includes costs for construction, mobilization/demobilization, design and engineering, legal, engineering during construction, and construction management. Assumptions used to develop these costs can be found in Appendix D. Note that cost estimates included as part of this study are classified as Class 5 (reconnaissance-level) according to the Association for the Advancement of Cost Engineering International standards. It is important to note that the Class 5 estimate is subject to change as the level of detail increases, and the expected accuracy of a Class 5 estimate ranges from -20 to -50 percent on the low side and +30 to +100 percent on the high side.

Table 5-1. Intertie Major Construction Cost Estimate

Item No.	Cost Component	Estimated Cost
1	Major Construction	$588,000
2	Mobilization and Demobilization (10% of Item No. 1)	$59,000
3	Subtotal	$647,000
4	Design and Engineering (15% of Item No. 3)	$97,000
5	Legal (2% of Item No. 3)	$13,000
6	Engineering During Construction (2% of Item No. 3)	$13,000
7	Construction Management (10% of Item No. 3)	$65,000
8	Subtotal	$188,000
Total (Item No. 3 + Item No. 8)		**$835,000**

5.2.1.3 MODEL EVALUATION

To evaluate the potential water supply from an intertie with SLCWD, the operations simulation model described in Section 2.1 was expanded to include SLCWD's Serene Lakes and associated consumptive demands. Consumptive demands were included for both existing conditions for model calibration purposes and anticipated 2040 future conditions to evaluate Serene Lakes operations with and without an intertie to DSPUD's system to determine if additional supplies could be delivered without impacting water supply reliability. These scenarios were tested over a study period containing water years 1976-2021 to include the hydrologic variability which occurs in the basin. Table 5-2 summarizes the three scenarios that were tested to evaluate the viability of an intertie with SLCWD. Further information related to the adjustments that were made to the model to evaluate the viability of an intertie and the assumptions used as part of this evaluation can be found in Appendix E.

Table 5-2. Intertie Evaluation Scenarios

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
IT-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
IT-2	Future Conditions without Intertie	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]
IT-3	Future Conditions with Intertie	Existing with Intertie	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]

Notes:
IT = intertie
[1] This scenario incorporates water conservation measures to simulate operating under future drought conditions. These measures preserve Lake Angela storage while delivering 75% of the demand and are detailed in the abridged WSCP developed as part of this study (see Appendix F).

5.2.1.3.1 Scenario IT-1 – Existing Conditions

Scenario IT-1 represents current historic hydrology and existing demands. Development of the existing conditions hydrology dataset is described in Appendix E. Existing demands for this scenario were developed by averaging the deliveries for the 2017 to 2021 period on a monthly basis. As shown in Table 5-3, the total average demand for SLCWD over that period is 86.4 AF. Under Scenario IT-1, the average demand repeats for every year of the simulation.

Table 5-3. Sierra Lakes County Water District Existing Consumptive Demands

Month	SLCWD Existing Consumptive Demand, AF
Jan	7.0
Feb	6.2
Mar	6.5
Apr	6.6
May	5.7
Jun	7.3
Jul	11.3
Aug	9.3
Sep	7.1
Oct	5.2
Nov	4.8
Dec	6.2
Total Potable Water Demand	**83.1**

Figure 5-2 shows the annual delivery and demand for the period of record. In 1976, 1977, 1978, 1988, 1989, 1991, 2015, and 2016 there were shortages imposed. This was done in a manner that tries to mimic curtailments imposed by the SWRCB using the April through July runoff forecasts. The forecasts are made February 1, March 1, and April 1. The April 1 forecast is then used for the April 1 through February 1 period. When the April through July forecast is less than 30% of average, a 15% reduction in delivery is imposed, consistent with SLCWD conservation requirements (see Appendix E). These reductions in delivery exactly meet the reduction in demand meaning that these are following the curtailment logic and are not because storage has reached dead pool at Serene Lakes.

Results from the assessment of existing conditions show that the minimum storage at Serene Lakes for the study period occurs in the driest years and is roughly 580 AF (Figure 5-3). This leaves approximately 510 AF of additional storage above the dead pool. Under existing conditions, the water supply is more than sufficient to meet demand. Assuming the system is functioning well, the findings suggest a minimal risk of water supply shortage resulting from drought conditions under Scenario IT-1.

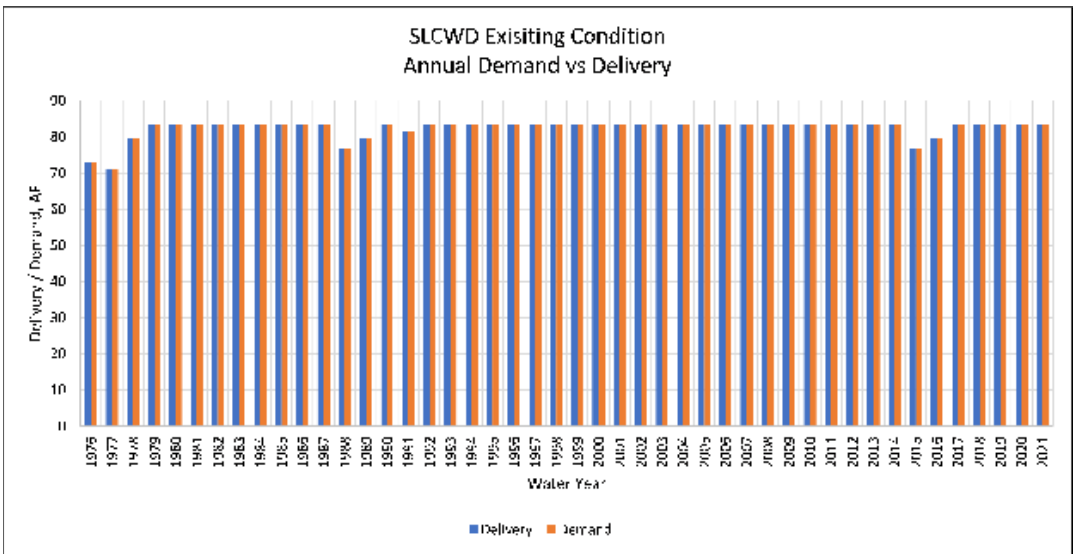

Figure 5-2: Scenario IT-1 - Existing Conditions Deliveries

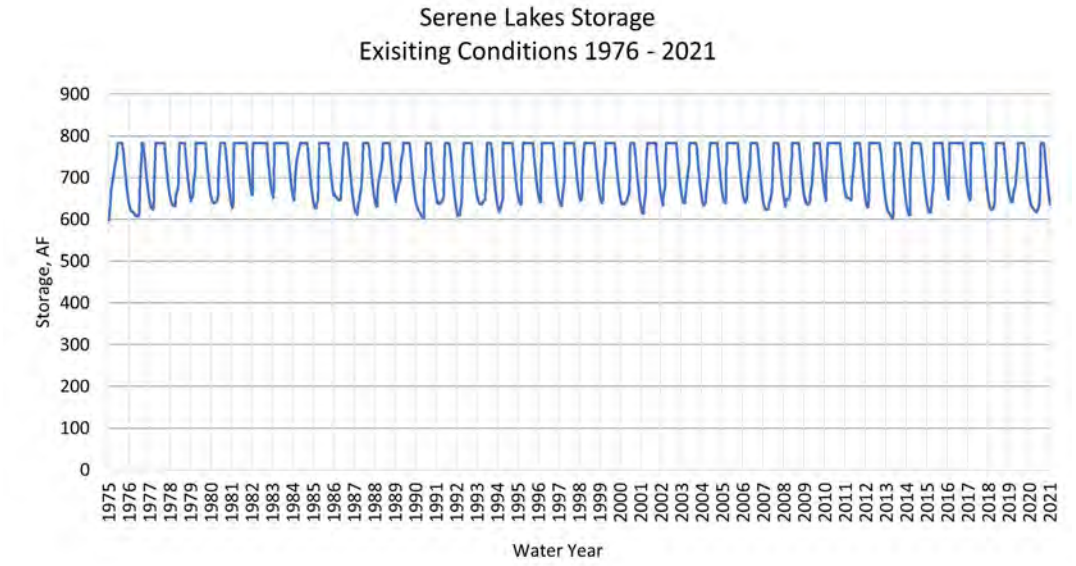

Figure 5-3: Scenario IT-1 - Existing Conditions Serene Lakes Storage

5.2.1.3.2 Scenario IT-2 – Future Conditions without Intertie

Scenario IT-2 builds on Scenario IT-1 by incorporating build out demands and climate change hydrology. Development of the climate change hydrology dataset is described in Appendix E. Build out demands for this scenario were developed using the historic demand patterns multiplied by the anticipated future water use of 365 AF (Table 5-4). Build out demands for SLCWD are expected to be around 279 AFY more than existing demands.

Table 5-4: Sierra Lakes County Water District Future Consumptive Demands

Month	SLCWD Build Out Consumptive Demand, AF
Jan	30.5
Feb	26.8
Mar	28.0
Apr	26.7
May	25.2
Jun	32.8
Jul	47.8
Aug	40.5
Sep	31.2
Oct	23.1
Nov	22.2
Dec	30.3
Total Potable Water Demand	**365.0**

Figure 5-4 illustrates the deliveries made under the future conditions without intertie scenario. Note that this scenario, along with Scenario IT-3, incorporates water conservation measures to simulate operating under drought conditions. These measures are detailed in the abridged WSCP developed as part of this study (see Appendix F) and aim to preserve storage in Lake Angela while delivering 75% of the demand. If not for the anticipated SWRCB curtailments, Serene Lakes is estimated to have enough supply under this scenario to meet SLCWD demands in all years.

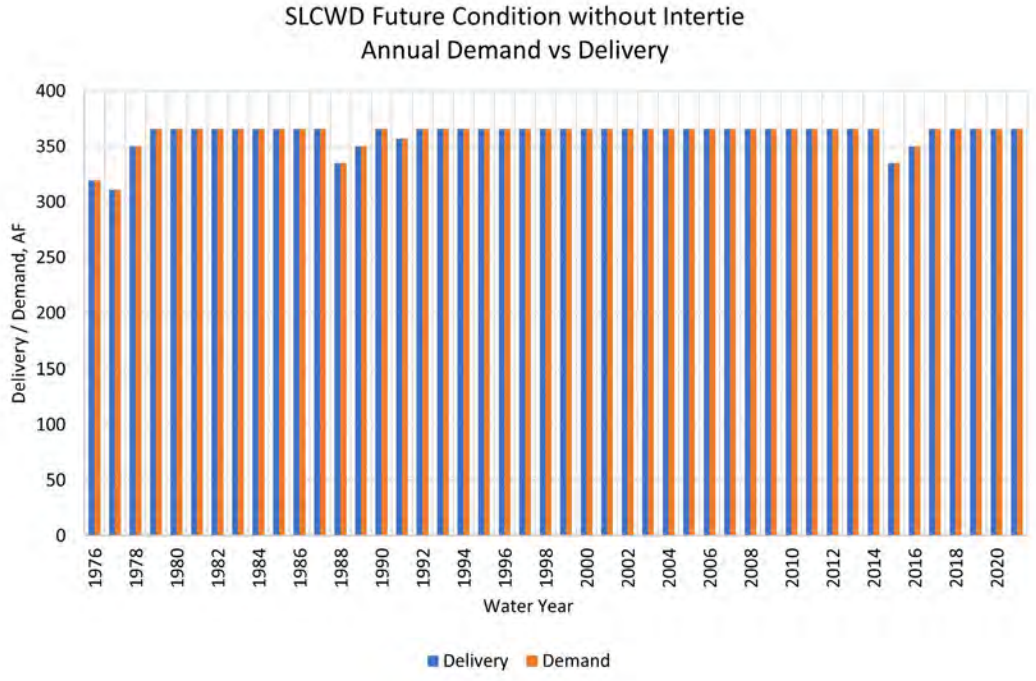

Figure 5-4: Scenario 2 - Future Conditions without Intertie Deliveries

Under Scenario IT-2, Serene Lakes generally remains above 400 AF except for 1977 when it dropped to 317 AF before winter precipitation began the refill (see Figure 5-5). Currently, SLCWD can pump water from an elevation of 6,864.5 ft msl or about 9 ft below the dam crest, allowing access to the remaining reservoir storage of about 300 AF. Under Scenario IT-2, Lake Angela experiences its lowest levels in the driest years, nearing dead storage and often dropping to approximately 50 AF (see Figure 5-6).

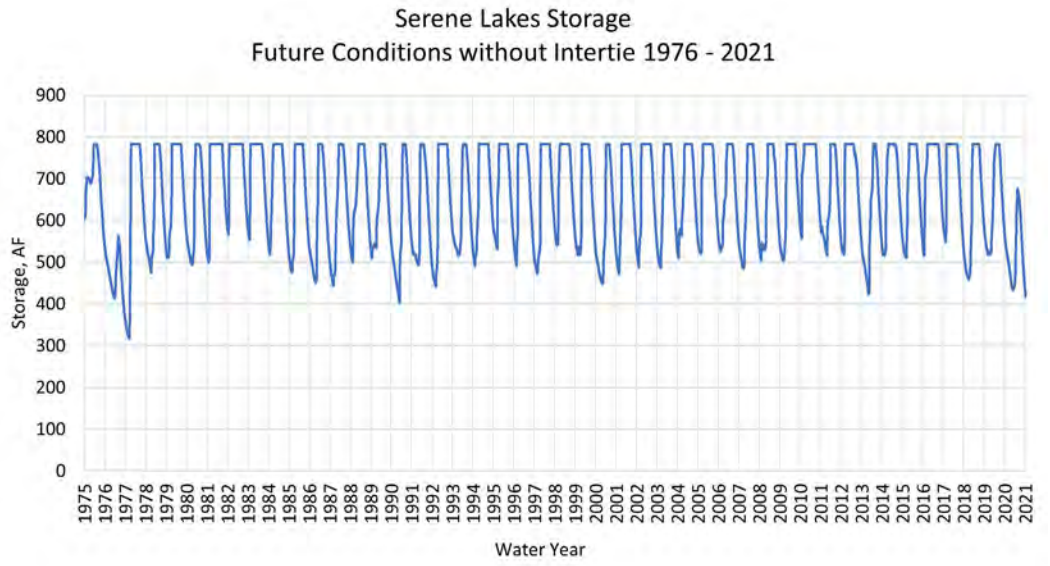

Figure 5-5. Future Condition without Intertie Serene Lakes Storage

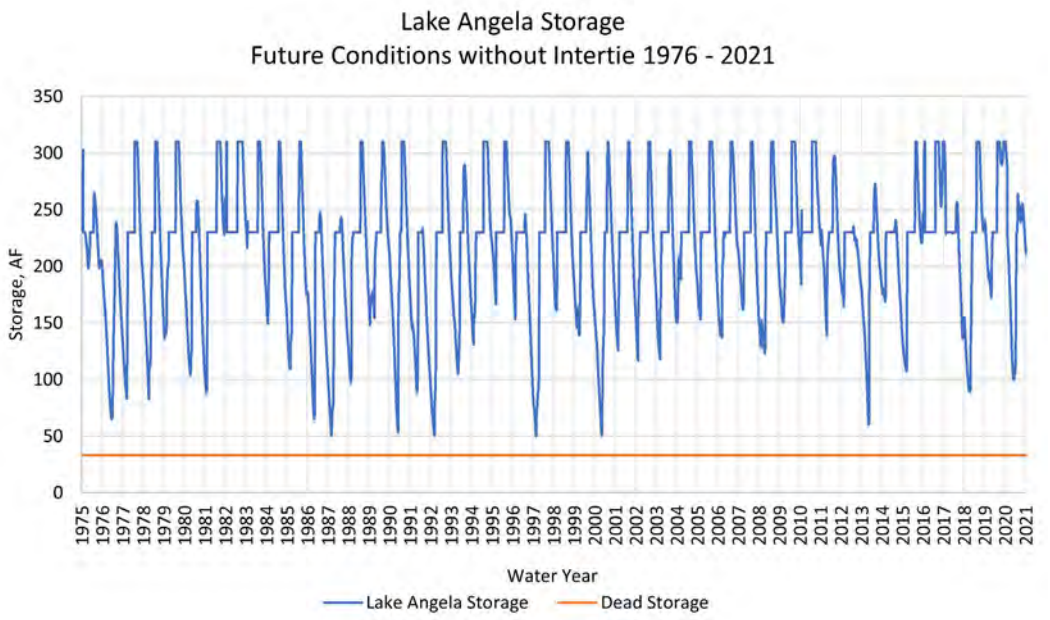

Figure 5-6. Lake Angela Storage without Intertie

5.2.1.3.3 Scenario IT-3 – Future Conditions with Intertie

Scenario IT-3 builds on Scenario IT-2 by incorporating an intertie between SLCWD and DSPUD. This scenario assumes the same buildout demands for SLCWD as Scenario IT-2 (*see* Table 5-4), and DSPUD build out demands of 454 AFY (*see* Table 2-4). Climate change hydrology for Scenario IT-3 is the same as Scenario IT-2 and is described further in Appendix E. As illustrated in Figure 5-7, the same deliveries are made as under Scenario IT-2, demonstrating no water supply impact to SLCWD customers.

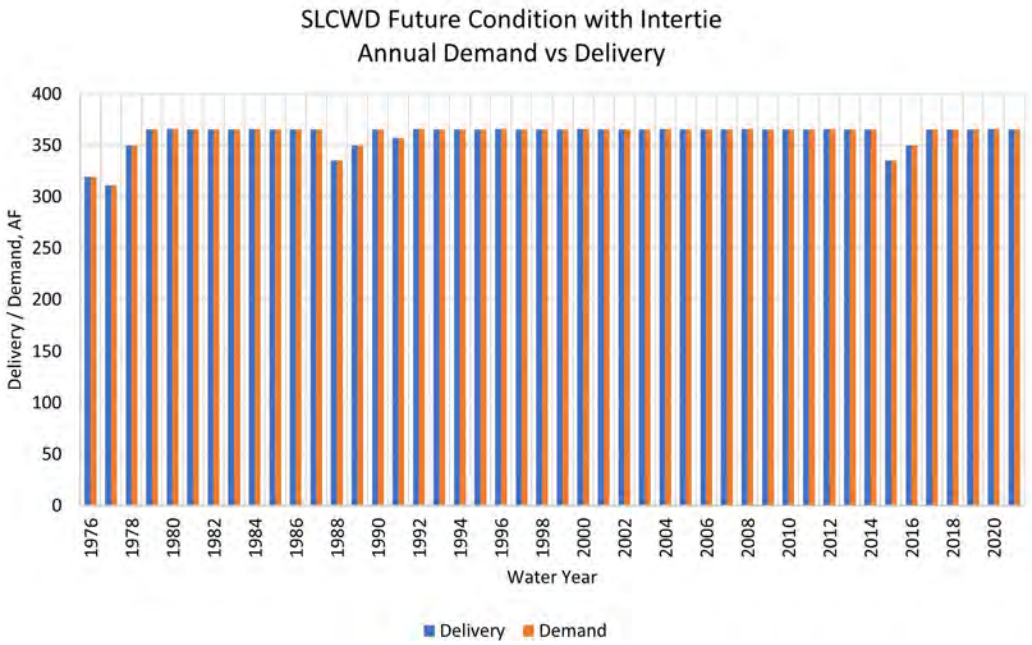

Figure 5-7: Scenario IT-3 - Future Conditions with Intertie Deliveries

Figure 5-8 illustrates the storage at Serene Lakes with and without intertie deliveries. Deliveries are made to DSPUD when Lake Angela Storage falls below 80 AF. The 80 AF threshold value results in a Serene Lakes low point of about 307 AF, allowing SLCWD to continue to pump water using existing facilities to serve their own customers. Deliveries to DSPUD are primarily made from direct diversions rather than storage withdrawals which minimizes impacts to Serene Lakes storage. The intake pipe could be extended deeper into the reservoir to allow for more operational flexibility.

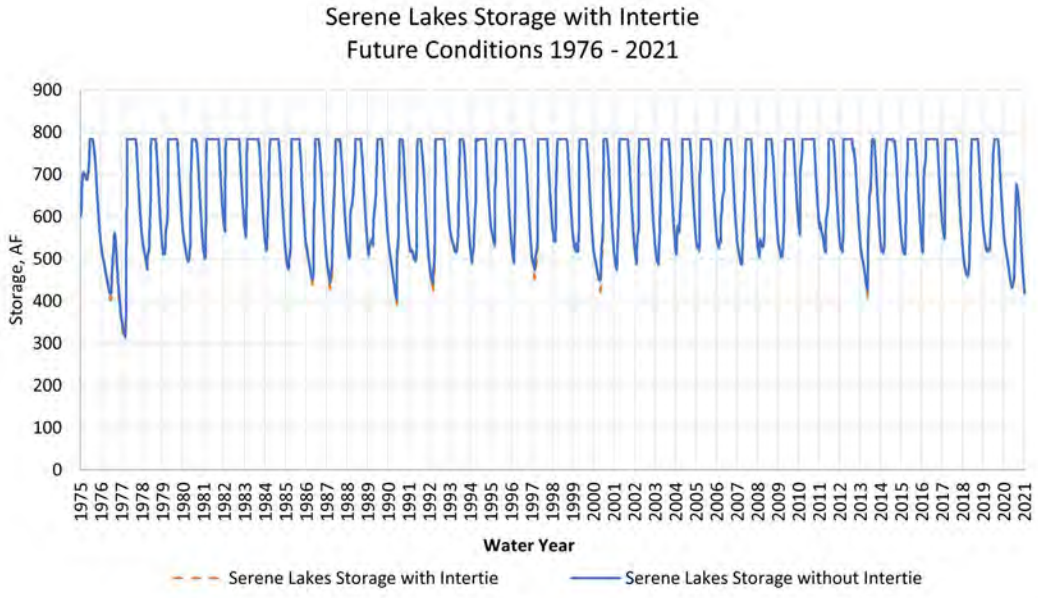

Figure 5-8: Serene Lakes Storage with Intertie Delivery to DSPUD

Utilizing the intertie can improve the dry year low point of Lake Angela storage from about 50 AF to 70 AF, as depicted in Figure 5-9, without significantly impacting SLCWD's water supply.

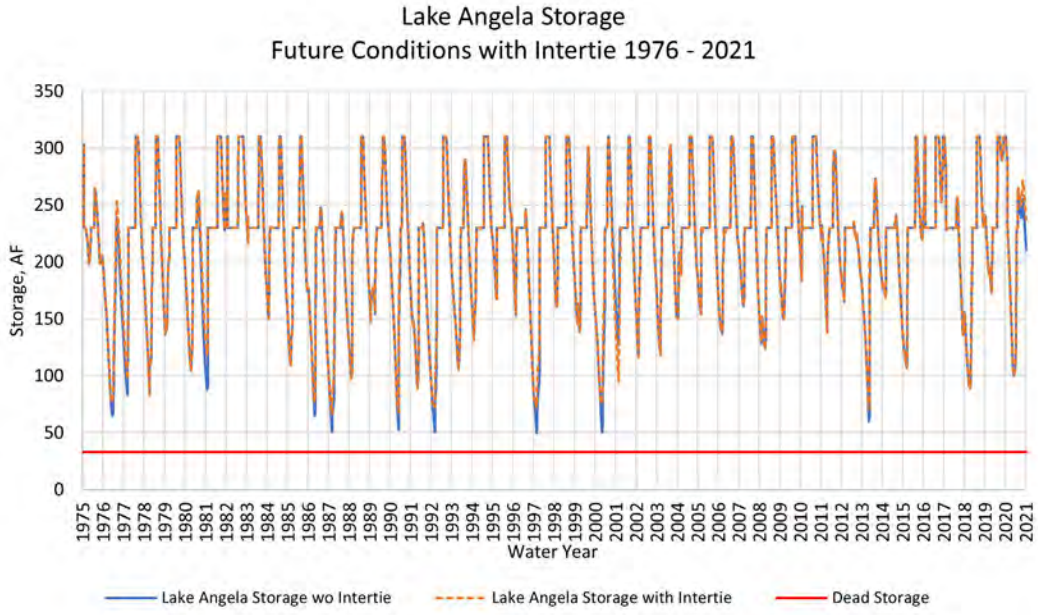

Figure 5-9. Lake Angela Storage with Intertie Delivery

Figure 5-10 provides an overview of the annual volumes of water delivered by the intertie in dry years. These deliveries range from approximately 2 AF to as much as 32 AF in each of the dry years. Deliveries from the intertie are made if Lake Angela storage falls below 80 AF, keeping Lake Angela storage from falling to dead storage while preserving water supply at Serene Lakes. Most intertie deliveries from Serene Lakes are sourced from direct diversions rather than storage withdrawals. This operation is advantageous because the intertie delivery has minimal impact on Serene Lakes storage while benefiting the storage capacity of Lake Angela.

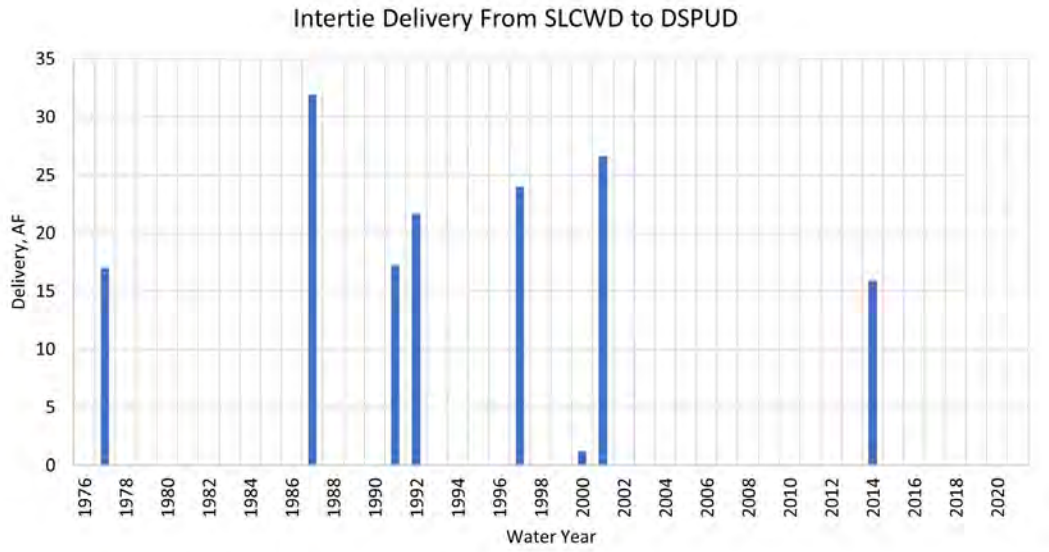

Figure 5-10. Intertie Delivery from SLCWD to DSPUD

5.2.1.3.4 Summary

In conclusion, under future climate conditions, both Lake Angela and Serene Lakes have the capacity to meet the anticipated future demand, provided that dry year reductions in deliveries are implemented during water-short years. The results suggest that by adding an intertie, early spring runoff during drier years can be diverted to Lake Angela without significantly affecting Serene Lakes' storage. This operational improvement enhances overall water supply and may lead to a revision of the triggers included in DSPUD's abridged WSCP (see Appendix F), potentially allowing for increased deliveries by DSPUD.

For water supply purposes, both DSPUD and SLCWD would only need an intertie when consumptive demands approach build out levels. However, an intertie could serve as a valuable resource for emergency water supply needs, enabling the two Districts to offer temporary support in the event of equipment failures or water quality emergencies.

6 SUMMARY AND CONCLUSIONS

6.1 SUMMARY AND CONCLUSIONS

As a result of vulnerabilities related to water quality and a changing climate, which is expected to increase the severity and duration of future droughts, DSPUD has a need to identify potential sources of additional water which respond to these risks. This study is supportive of the requirements of SB 552 which mandates that by January 1, 2027, the District have at least one backup water supply or a water system intertie meeting current water quality requirements and sufficient to meet average daily demand.

The goal of this study was to evaluate the vulnerability of the District's water supply to risks associated with water quality, drought, and climate change, and to identify potential sources of water to address these impacts and the requirements of SB 552. To evaluate the risks associated with drought, as described in Chapter 2, an operations simulation model was developed to evaluate scenarios representing existing and future conditions. Model runs under existing conditions suggest little risk of water supply shortage due to drought assuming current historic hydrology and existing demands. However, results from this evaluation suggest that there is potential for a supply-demand imbalance in the future, particularly during dry years, due to the impacts from climate change and population growth. To help conserve water supplies during future water shortage conditions, including drought, the development of a WSCP that would serve as a framework for implementing water use restrictions was recommended. The periodic review and adjustment of DSOD's storage requirements was also recommended to address the impacts from shifting runoff patterns as a result of climate change. The water quality risk evaluation, described in Chapter 3, identified the potential for continued water quality challenges as a result of impacts from climate change and other internal and external mechanisms. In-lake and operational control strategies, along with the development of a monitoring plan and water quality assessment study, were identified to address and manage these risks.

Several potential permanent and short-term water supply solutions were identified based on the drought risk and water quality evaluations:

Potential Permanent Solutions:

- Groundwater
- Alternative Surface Water Supplies
  - Lake Angela Expansion
  - Development of Nearby Natural Lakes
- Intertie with SLCWD
- Recycled Water
- Water Shortage Contingency Plan

Potential Short-Term Solutions:

- Hauled/Bottled Water

As the only solution that meets the goal of this study, the intertie with SLCWD was carried forward for further evaluation with the development of conceptual infrastructure requirements, feasibility level cost estimates, and evaluation of the intertie using the operations simulation model.

As described in Chapter 5, an intertie with SLCWD would require a 0.8-mile-long 8-inch pipeline extending from the tie-in to the SLCWD water supply system at the intersection of Pahatsi Rd and Soda Springs Rd to the connection to the DSPUD water supply system at the intersection of Bunny Hill Rd and Soda Springs Rd. The total estimated cost for an intertie with SLCWD is estimated at $835,000, including costs for construction, mobilization/demobilization, design and engineering, legal, engineering during construction, and construction management. The results of this study suggest that, under future climate conditions, both Lake Angela and Serene Lakes have the capacity to meet the anticipated future demand, provided that dry year reductions in deliveries are implemented during water-short years. For water supply purposes, both DSPUD and SLCWD would only need an intertie when consumptive demands approach build out levels. However, an intertie could serve as a valuable resource for emergency water supply needs, enabling the two Districts to offer temporary support in the event of equipment failures or water quality emergencies. Construction of an intertie with SLCWD would require changes to both District's water rights to include the other's service area in their place of use.

6.2 NEXT STEPS

Climate change projections from this study indicate future runoff patterns will result in peak runoff in the January through February period. Because of the shifting runoff patterns and the current Lake Angela DSOD requirements coupled with anticipated demands, maximizing storage in Lake Angela and Serene Lakes in the future may become critical once consumptive demands reach build out levels. An economic analysis for the construction of the intertie should be considered. The analysis should not only consider the increase in water supply, but also the value of an emergency water supply at any point in the future. This economic analysis could be performed as part of a feasibility study for the intertie, which is also recommended to include:

- A pipeline alternatives analysis to identify the most optimal pipeline configuration.
- An evaluation of the Class 5 cost estimate prepared as part of this study, along with the development of cost estimates for other identified alternatives as needed.
- Identification and analysis of project implementation considerations including but not limited to funding/financing, needed permits, water rights issues, and legal and institutional requirements.

As discussed in Chapter 2, revision of the DSOD storage requirements was recommended to help maximum storage in Lake Angela given the projected shift in runoff patterns as a result of climate change. Revising the DSOD storage requirements would likely require the District to prepare a monthly design storm study to demonstrate that the dam would not overtop or fail if the November 1 through April 30 timing was relaxed. DSOD may permit some amount of overtopping since Lake Angela is a concrete gravity dam. Regardless, the District would need to brief DSOD on the intent of the study and verify the recommended approach prior to embarking on such an effort.

As described in Chapter 5, the District has prepared an abridged WSCP as part of this study. The abridged WSCP was adopted by the District's Board of Directors on October 17, 2023. The abridged WSCP serves as a framework to manage and mitigate future water shortage conditions as a result of drought or other factors. This framework includes water shortage levels corresponding to progressive ranges of shortages, along with accompanying response actions to help conserve available supplies. These water shortage levels are based on projected surface water storage in Lake Angela and Bulletin 120 forecasts for the American River below Folsom Lake. DSPUD will continue to monitor water supply and demand conditions on a monthly basis and initiate monitoring of the Bulletin 120 forecasts for the American River below Folsom Lake to evaluate when the abridged WSCP should be activated. A summary of the triggers, water reduction targets, and response actions associated with each of the water shortage levels is provided in Appendix F.

As part of the development of DSPUD's abridged WSCP, the District has also developed a catastrophic water allocation plan. The catastrophic water allocation plan will be used to allocate water in the event that water shortage conditions threaten public health and safety, which includes the provision of hauled/bottled water as an interim alternative water supply to meet short-term public health needs. Water will be hauled to DSPUD by a California Department of Public Health certified potable water hauler, and the District is in the process of identifying procurement needs for distributing this alternative water supply. Additionally, the District is in the process of joining the California Water/Wastewater Agency Response Network (CalWARN), a mutual assistance program which could help provide greater access to water supplies during a catastrophic water shortage.

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APPENDIX A: LAKE ANGELA WATER QUALITY RISK EVALUATION TECHNICAL MEMORANDUM

Consulting
Engineers and
Scientists

GEI Consultants

Technical Memorandum

Lake Angela Water Quality Risk Evaluation

Source water protection planning is an integral component of drinking water providers in the arid-west, especially when drought conditions greatly influence water quantity and quality conditions. The decadal trends in climate warming and its impact on spring snowpack and runoff conditions followed by warmer summers highlighted by wildfires have prompted water providers to evaluate the resiliency in their water supply system. This includes source water quantity and quality, raw water storage, water treatment, finished water storage, and ultimately, the distribution system to the consumer. For the water treatment to distribution component of drinking water supply, resiliency is more commonly defined as the ability to anticipate, absorb, adaptively manage, and recover from a disturbance that upsets water supply. As a result, the Donner Summit Public Utility District (DSPUD) needs to have a good understanding of the ecology and steady-state conditions of their source water supply and Lake Angela to anticipate and respond to a changed condition. In addition, DSPUD needs to understand what tools are available to adaptively manage a changed condition in Lake Angela or to incorporate flexibility into their water treatment system to absorb a water quality upset and return to typical operating conditions.

Purpose

The purpose of this technical memorandum is to describe the ecological and limnological steady-state conditions for Lake Angela based on the available information and to describe the potential risks that may influence water quality and its treatability. We provide an overview of limnological conditions in Sierra Nevada lakes and how this information supplements our current understanding of Lake Angela, and make recommendations on how to improve our understanding of limnological conditions that influence water quality in the lake. Lastly, we describe in-lake management strategies to adaptively manage changes in Lake Angela water quality and operational considerations regarding water treatment.

Background

Lake Angela is the sole source of water supply for DSPUD which serves the nearby communities of Norden, Soda Springs and Big Bend, including local ski resorts, with drinking water. Lake Angela is located at an elevation of 7,200 feet, near Donner Summit and the crest of the Sierra Nevada Mountains, and receives source water from a relatively

GEI Consultants, Inc.
4601 DTC Boulevard, Suite 900, Denver, CO 80237
303.662.0100 fax: 303.662.8757
www.geiconsultants.com

small watershed (144 acres) that comprises a portion of the headwaters in the South Fork Yuba River Watershed. DSPUD owns most of the watershed contributing to the Lake and restricts usage to protect water quality.

The Lake Angela Watershed receives approximately 79 inches of liquid precipitation per year in the form of snowfall (20 inches liquid equivalent) and rainfall (50 inches). Snowpack and overland runoff provide the primary hydrological input to the lake, as there are no defined tributary inflows to the waterbody. The lake also likely receives little to no ground water inflows given the surrounding geology and its headwaters location. The sole purpose of Lake Angela is for domestic water supply.

Lake Angela Dam was first constructed in 1945 and later expanded in 1971 to its current configuration, creating a surface area of approximately 19.6 acres with a storage capacity of approximately 310 acre-feet – which is DSPUD's water right – at an elevation of 7,197 ft (Domenichelli & Associates 2019). The expansion of the dam created two basins separated by a ditch at an elevation of 7,177 feet. Even though the historical dam was partially removed to create a connectivity channel (i.e., ditch) between the basins, the natural geology along the historical dam remained in place, creating a natural sill between the basins (Figure 1). The existing concrete dam has a crest elevation of 7,197.2 feet and a spillway crest elevation of 7,192.8 feet (NAVD88). A 10-inch diameter outlet structure for the water treatment facility is located at an elevation of 7,172 ft, at the southern end of the lake (i.e., southern basin), while the deepest portion of the lake is located approximately 1,000 ft north of the dam (i.e., northern basin). Other than the spillway, there is no defined reservoir outfall, releasing water downstream, thus, water supply releases and evaporation account for the hydrological outputs.

Ecological Setting

Lake Angela is set in the granitic rock outcrops of the Cretaceous Period, characterized as Horneblende-biotite-granodiorite of Summit Lake with K-feldspar megacrystic facies and Tonalite of Lake Mary formations, with small pockets of Talus glacial deposits from the Holocene Period (Sylvester et al. 2012). The Natural Resource Conservation Service (NRCS) further refines the granitic soil characteristics as granitic-Tinker-Cryumbrepts derived from decomposed granite, with 2-30 percent slopes and Meiss weathered rock outcroppings with pockets of freely drained soils (Huntington and Akeson 1987). The mineral soils are poorly developed, and the organic matter content is low due to the exposed granitic outcrops and relatively open canopy of the coniferous forest consisting of Lodgepole Pine (*Pinus contorta var. murrayana*) and Jeffrey Pine (*P. jeffreyi*) with low lying shrubs, Sagebrush (*Artemisia tridentata*) and Bitterbrush (*Purshia tridentata*).

As reported in the Lake Angela Watershed Sanitary Survey Report (Sauers Engineering, 2021), wildlife in the watershed is relatively limited by availability of food, shelter, and

places for rearing young. Land use, as defined by Nevada County General Plan, is Forest. The community served by DSPUD is located 2 miles east and downhill from the Lake at an elevation of 6,850 feet.

Because the lake is designed for storage, with no regular flow-through, water can become stagnant. There are two conditions that contribute to algae growth: 1) during years of low precipitation when there is no outflow; and 2) during summer months when the lake is experiencing thermal destratification. Excessive algal blooms were experienced in July-August 2009 and July-August 2015 (Sauers Engineering, 2021).

Limnology and Water Quality of Sierra Nevada Lakes

External Nutrient Inputs

The soil nutrient contents and fluxes from the semiarid forest are relatively low compared to other northern temperate forest types (Johnson et al. 1997). However, the atmospheric deposition of nitrogen and phosphorus, from sources outside of the watershed, represents a relatively large fraction of the watershed nutrient budgets and inputs to high elevation lakes in the Sierra Nevada mountain range (Sickman et al. 2003). Sources for the atmospheric deposition include motor vehicle emissions, wind-blown dust,–pollen, and–organic matter, along with ash particulates from wildfires. In fact, the aeolian deposition of biologically available total inorganic nitrogen (TIN) and soluble reactive phosphorus (SRP) inputs to Sierra Nevada Lakes have been directly linked to regional forest fires (TREC 2022) which provides an external nutrient source to the lake's algae population. The atmospheric deposition within the watershed, along with the natural decomposition of organic matter, is "flushed" into Sierra Nevada lakes during spring snowmelt or rainfall runoff. These external nutrient sources have contributed to the general pattern of nutrient enrichment in lakes throughout the Sierra Nevada mountain range (Sickman et al. 2003), including Lake Angela. When this pattern of nutrient enrichment is placed into the context of a warmer climate, small changes in ice-cover duration, spring snowpack and timing of snow-melt runoff (Null et al. 2010), surface water temperature (Sadro et al. 2019), and light availability can have a large influence on algae production in the oligotrophic lakes of the Sierra Nevada mountain range (Goldman et al. 1993, Sickman et al. 2003, Goldman 2000). If dry-year type conditions continue to be more frequent, high elevation lakes in the Sierra Nevada (like Lake Angela) will continue to become more productive of algae (Sadro et al. 2019).

Internal Nutrient Inputs

Lake Angela may typify a small lake in the northern Sierra Nevada mountain range; however, little information exists describing the physicochemical characteristics of the lake or the hydrological processes that influence external nutrient inputs or possible internal nutrient loading from the lake sediments. Considering that the nutrient inputs from the watershed are likely small, the internal nutrient release may provide a substantive component of the nutrient mass balance that facilitates algal productivity during late summer or early

fall. The long-term accumulation of organic matter at the bottom of the lake, supported by the annual cycle of algae growth–death–settling and nutrient recycling by aquatic life use (i.e., zooplankton and fish), has likely created a sediment layer that stores phosphorus bound to organic matter and mineral-oxides during oxygenated lake conditions. The sediment phosphorus content in high elevation, Sierra Nevada lakes (n = 50), is sufficiently large enough (~1,450 mg/kg sediment) to provide a substantive internal nutrient loading component under redox conditions (Homyak et al. 2014). Approximately 30 percent of the sediment-bound phosphorus content is in the freely exchangeable and redox-sensitive iron-, manganese-oxides pool, while 70 percent is in the more recalcitrant aluminum- and calcium-oxides and non-reducible organic matter pool. Aluminum-bound phosphorus comprises the largest component of the recalcitrant pool in Sierra Nevada lakes (Homyak et al. 2014), effectively sequestering phosphorus that is not affected by redox conditions (Kopacek et al. 2005). The metals (e.g., iron, manganese, aluminum) along with calcium and silicates (important for diatom growth) are byproducts of natural weathering of the surrounding geology in the watershed.

Thermal Stability

Lake Angela is a small cold-water dimictic lake that exhibits a winter ice-covered period and two seasonal mixing periods (spring and fall). The two basins, separated by a sill, likely influence the thermal characteristics of the Lake Angela and certainly influence the general spring warming and ice-off characteristics as evident in the satellite images (Figure 1). The lake is deep enough to exhibit thermal stratification during the summer months such that a density gradient separates the warmer upper water layer (epilimnion) from the colder bottom layer (hypolimnion). When the density gradient (thermocline) is resistant to mixing, the hypolimnetic dissolved oxygen content may be depleted by microbial respiration creating a low dissolved oxygen environment. When this condition persists, the microbial reduction of organic matter and metal oxides (e.g., freely exchangeable and redox-sensitive iron and manganese) as an electron source (i.e., energy) occurs in the sediment, releasing soluble reactive phosphorus, iron and manganese. These constituents diffuse across the sediment/water interface and into the overlying water column. When the hypolimnion remains stable and unmixed during the summer, the nutrient and metals concentrations can increase to levels that facilitate algae growth or influence water treatment, when the hypolimnion becomes mixed with the epilimnion in the fall. Other hydrological factors that can influence the water column stability, includes hypolimnetic withdrawal or stormwater inputs, causing temporary mixing of the water column or intrusion of water to deeper depths. These factors may be evident in Lake Angela when redox favorable conditions persist given the two distinct basins.

Algae

Despite the oligotrophic status of most Sierra Nevada lakes, there is evidence that algal productivity is increasing (Goldman et al. 1988, Goldman 2000, Derlet et al. 2009), concurrent with the increasing trends in nitrogen deposition (Sickman et al. 2003) and climate warming (OEHHA 2022). While reactive nitrogen deposition has be linked to changes in diatom assemblages of high elevation lakes (Winder et al. 2008, Olesky et al. 2020), the pronounced changes in other algae assemblages indicates additional drivers remain largely undocumented (Sadro et al. 2018). Algae populations in high elevation lakes are seasonally variable, with diatoms (single-celled, hard-bodied algae with silica based cell walls) typically the most abundant algae in the spring due to the mixing, nutrients, and light availability following seasonal ice-off conditions (Winder et al. 2009, Sommer 1989). Peak algae biomass typically occurs in late summer, and is usually associated with a shift from diatoms to small, soft-bodied unicellular chlorophytes (green algae) that are better adapted to the relatively stable water column and low nutrient and mineral concentrations (McKnight et al. 1990). The transition to the fall algae assemblage can contain a mix of chlorophytes, chrysophytes (golden algae) and cyanobacteria (Dory et al. 2022, McKnight et al. 1990), while the winter algae are often comprised of small motile cryptophytes and chrysophytes that are adapted to low light conditions, and can exhibit mixotrophy (i.e., consume bacteria to obtain carbon source rather than rely solely on photosynthesis). Oligotrophic conditions tend to provide a competitive advantage of small-bodied algae over the larger filamentous chlorophytes or cyanobacteria.

Existing Monitoring Data for Lake Angela

Hydrology

Based on the limited lake level data, collected primarily from 2009 to 2015, Lake Angela is generally at full capacity (7,192.8 ft) from April to June, at which time the summer water demand decreases lake level by approximately 1.6 feet per month through September, and eventually decreases to minimum lake level (7,186 ft) in November. No lake level data are available for the winter months December through February when the lake is ice- and snow-covered. In terms of risk to Lake Angela's hydrological cycle and water storage, climate modeling scenarios indicate that the Yuba Watershed may experience considerable reductions in flow and water storage under warmer climate conditions (Null et al. 2010). The northern Sierra Nevada watersheds are highly developed for drinking water storage and reductions in flow are predicted to be the greatest during wet-year type conditions. Because Lake Angela is at the headwaters of the Yuba Watershed, these modeled conditions may be less pronounced; however, decreases in wet-year storage followed up by consecutive dry-year conditions may result in decreased lake levels that can also affect water quality. Per DSPUD's permit for diversion and use of water (#21118), water can only be collected and stored from November 1 to July 31, and collection outside of this period is not authorized to offset evaporative losses or low lake levels. If lake levels approach a condition where the two

basins are largely isolated (Figure 1), except for the interconnective ditch portion, wind-induced mixing will be limited, creating more quiescent conditions in the southern basin. These conditions may be more prevalent during the late summer or fall period, when conditions are more favorable for algae production.

Water Quality

The physicochemical properties of Lake Angela and its two distinct basins are poorly characterized; although DSPUD periodically collects raw water samples on the facility's intake from the southern basin (2008-2020, n = 8 samples). These few raw water intake samples are likely representative of water quality conditions in Lake Angela's southern basin. However, the hypolimnetic water withdrawal for treatment and movement of water from the northern basin into the southern basin can affect the water quality conditions observed in raw water intake samples. Nonetheless, the water quality results show a high quality drinking water source absent of organic contaminants, albeit with characteristics representative of its watershed and sediment conditions. The bicarbonate-carbonate-alkalinity concentrations show a weakly buffered lake that is low in ionic strength (i.e., conductivity) and hardness (i.e., calcium and magnesium). The metals that readily bind to phosphorus were typically present in detectable concentrations of raw water samples, but less than their maximum contaminant level for drinking water. Notably, the highest concentrations of iron and manganese, including total dissolved solids (October 18, 2018, Sauers Engineering, Inc. 2021, Table B.1) appeared to occur when the lake's elevation was relatively low and storing less water (Figure 2), and likely represented a mixed water column, post fall turnover. The nutrient water chemistry data that are important for understanding the algae dynamics in Lake Angela are not available. Only nitrate-nitrite analyses were performed which represent only a fraction of the bioavailable total inorganic nitrogen component that that supports algae growth. No phosphorus analyses were performed on raw water samples.

Algae

Little to no information exists on the algae population dynamics in Lake Angela other than the lake has experienced infrequent nuisance[1] algae blooms that resulted in raw water treatability issues (i.e., turbidity). In 2009, the nuisance alga was identified as *Chlorella* sp., a micro-green alga (2-10 µm spherical cell) that is common in high elevation lakes and is well adapted to low concentrations of inorganic nitrogen, soluble reactive phosphorus, and minerals. The lake also contained *Oocystis* sp., a green alga (10-20 µm ellipsoid cell), and three diatom genera–*Navicula*, *Cocconeis*, *Cyclotella*, that represent both pennate and centric cells (10-75 µm). In July 2016, Lake Angela experienced a similar nuisance algae bloom causing treatability issues, although the algal taxa were not identified.

[1] a rapid increase of one or only a few species of algae, resulting in densities high enough to cause discoloration of the surface water

Water Quality Risks

Nuisance algae levels such as the ones observed in 2009 and 2016 can result in several water treatment problems such as taste and odor, formation of disinfection-by-products (e.g., trihalomethanes and chloroacetic acids), clogging of filter beds (Hung and Liu 2006), or biofouling and cake formation on filtration treatment systems (Shekhar et al. 2017). In addition to the size and shape of algal cells, algal organic matter [(i.e., metabolic byproducts and ruptured cells), dissolved organic carbon, DOC], and other particles affect the filtering efficiency and life-span of microfiltration treatment systems (Novoa et al. 2021). As a result, a mix of physical and chemical biofouling control strategies are key to the long-term operation of water treatment systems. These approaches may include membrane cleaning (i.e., backwash, air scouring), chemical pretreatment (i.e., ozonation, oxidation, coagulation, in-lake algaecides), operational controls (i.e., cross flow velocity, induced shear stresses), or composite treatment systems [(i.e., coagulant + activated carbon pretreatment), Novoa et al. 2021]. In both instances, when raw water from Lake Angela created treatability issues, the nuisance algae levels were effectively controlled using chemical algaecides that reduced the water treatment issues. However, the algaecide control strategies are often reactionary in nature and occur after water treatment issues arise. Therefore, a mix of control strategies that include both proactive and reactive treatment options should be considered for risk planning purposes.

To summarize the potential risks to Lake Angela water supply and treatment for drinking water purposes, the risks include both external and internal mechanisms:

Mechanism: *Atmospheric deposition is increasing the nitrogen and phosphorus content in Sierra Nevada watersheds and lakes*
Risk: *Promotes algae growth and biomass*

Mechanism: *Ash deposition from regional wildfires is increasing the nitrogen and phosphorus content, including particulates in Sierra Nevada watersheds and lakes*
Risk: *Promotes algae growth and biomass, increases particulates that affect treatability of water*

Mechanism: *Climate warming is increasing the variability in dry- and wet-year type conditions, and influencing the timing of snow-melt runoff, stream flows, and water storage in Sierra Nevada watersheds and lakes*
Risk: *Reduce water availability during consecutive dry-years, increase surface water temperature promoting algae growth and biomass*

Mechanism: *Bathymetry of Lake Angela and its two distinct basins separated by an interconnective ditch influence water circulation*
Risk: *Reduced capacity for mixing during low lake levels can affect water quality*

Mechanism: *Basin morphology and water withdrawal from the southern basin may influence lake stratification during the summer. Southern basin may be mixed while the northern basin remains stratified*
Risk: *Increase potential for internal nutrient loading that promotes late season algae growth, release of iron and manganese that affect treatability of raw water*

Mechanism: *Deep water withdrawal from the southern basin can influence water circulation patterns and promote the movement of warmer epilimnetic water from the northern basin to the southern basin*
Risk: *Warmer epilimnetic water is more suitable for nuisance algae growth*

Mechanism: *Increasing trends in nutrient availability, increases the likelihood developing nuisance algae levels in July and August*
Risk: *Increase the potential for taste and odor issues, affect the treatability of raw water*

Monitoring Recommendations to Improve Understanding of Lake Angela

A key component of a lake water protection plan is having a good understanding of the hydrological and water quality conditions that influence the summer algal growing season. This begins with documenting the volume of inflows (i.e., translation of lake level to storage volume) and outflows (i.e., withdrawal and spillway overflows) which better characterizes the water budget, hydraulic residence time, and the time that algae have to respond to favorable growing conditions.

We also recommend establishing two in-lake monitoring sites, one in each basin over the deepest location, and performing one sampling event per month during the July-August-September growing season. In addition to the lake monitoring, corresponding water samples should be collected from the facility's raw water intake and analyzed for the same constituents discussed below.

At each lake site, we recommend collecting water quality sonde profile data to document water temperature, dissolved oxygen, specific conductivity, pH, and oxidation reduction potential on 1 feet increments from the surface to the near bottom water (i.e., within 2 feet of the sediment). These data will help characterize any thermal stratification or density gradients that may limit whole water column mixing, and if thermally stratified, whether the hypolimnion exhibits low dissolved oxygen (e.g., < 2 mg/L) and redox favorable conditions. We also recommend collecting a near-surface water sample (1 ft below the surface), and a near-bottom water sample (within 2 ft of the sediment) and analyzing the samples for nutrients (total and dissolved organic/inorganic nitrogen and phosphorus fractions, lowest

detection limits possible[2]), total recoverable and dissolved iron and manganese, turbidity, and chlorophyll-a content (only near-surface sample). These data will help determine whether conditions are favorable for internal nutrient loading that may facilitate late season algae growth or affect taste and odor due to algae or metals. If Lake Angela experiences a nuisance algae bloom or is impacted by ash deposition from wildfires, then the frequency of monitoring should be increased to better characterize the potential effect on Lake Angela and water treatment. Supplemental algae identification data collected during a nuisance bloom would also be helpful to characterize the potential effect on water treatment, especially considering if cyanobacteria are present in Lake Angela. Cyanobacteria may require special considerations for water treatment, such as the presence of cyanotoxins.

Lake Angela Water Quality Assessment

Ideally, in-lake water quality monitoring should be a continuous part of a source water protection plan; however, we also recognize the economic and feasibility challenges of implementing and maintaining a source water monitoring program for small water districts. Therefore, we recommend performing a water quality assessment study to better characterize the limnological conditions of Lake Angela. This study may require at least two summers of water quantity and quality monitoring data to better characterize the potential risk of internal nutrient loading and potentially additional spring-time monitoring to characterize the nutrient and metals concentrations following spring snowmelt and runoff. The paired sampling routine (intake and lake water analyses) would help identify how the water quality characteristics in the northern basin influence the southern basin, or the lake as a whole, and whether the water quality in the southern basin is adequately represented by the raw water intake samples. A better understanding of how water quality conditions change and what influences them from a hydrological or water circulation standpoint will better inform the in-lake and water treatment process. Depending on the findings from the water quality assessment study, it may be practicable to modify the monitoring program and to only monitor the facility's raw water intake, if there are no significant differences between the intake chemistry and chemistry observed in the lake.

Control Strategies to Manage Risk

Based on information gleaned from the water quality assessment study and considering that nuisance algae blooms and ash deposition present the greatest risk to a sole source water treatment facility, a mix of proactive and reactive control strategies should be considered for

[2] Many laboratories analyze nitrogen components using relatively high detection limits that generally correspond to their respective MCLs for drinking water or even wastewater (i.e., milligram per liter, mg/L). However, for limnological and algae assessment purposes, low level detection limits (i.e., microgram per liter, µg/L) need to be requested for nutrient analyses.

resiliency planning purposes. These strategies should include options for both in-lake and water treatment controls.

In-Lake Control Strategies

Algaecides

In-lake control strategies have primarily centered around the use of chemical herbicides as a response to treat problematic algae and cyanobacteria. Copper-based algaecides have been widely used because the efficacy, fate of copper, and potential effects on non-target aquatic life use have been well-documented (Moore and Kellerman 1905, Calomeni et al. 2017, Murray-Gulde et al. 2002). However, there are limitations that should be considered before its use in Lake Angela, because copper is a priority pollutant under the California Lead and Copper Rule (CCR Title 22, Div.4, Ch 17.5). In addition, when treating soft waters, such as in Lake Angela, with copper-based algaecides, there is an increased risk to non-target aquatic life use. As a result, copper-based algaecides are not recommended, especially when other USEPA and California approved oxidizers are available as algaecide treatment in raw water storage reservoirs.

The use of stabilized peroxide pellets (sodium carbonate peroxyhydrate) is an equally effective approach for controlling algae blooms, compared to copper-based algaecides, and has a substantial amount of field evidence supporting its effectiveness in the United States and Europe (Mattheiss et al. 2017, Matthijs et al 2012, Zhou et al. 2018, Lusty and Gobler 2021). There are two versions – one that sinks to the bottom and effectively treats benthic algae or one that floats and slowly dissolves and is designed for planktonic algae. Relatively low concentrations of peroxide-based algaecides are very effective in controlling cyanobacteria via oxidative stress. Although, there is evidence that green algae, including *Chlorella* sp., exhibit antioxidant defense mechanisms that help degrade oxidants and lessen their effectiveness at relatively low concentrations that are effective on cyanobacteria (Weenink et al. 2021, Lusty and Gobler 2020, Foyer and Shigeoka 2011). As a result, larger treatment doses may be necessary to effectively control a nuisance green algal population. The application of peroxide-based algaecides certainly has an advantage over other forms of algaecides in that the product breaks down to water and oxygen within a few days of treatment, leaving no long-term chemical signature in the environment (Matthijs et al. 2012). This characteristic is particularly desirable in a drinking water storage reservoir, and even more in a pristine Sierra Nevada lake.

Ultrasonic Sound Waves

An emerging technology to preemptively control the development of algae relies on high frequency, low power, sound waves to disrupt algal cell structure. These ultrasonic systems are typically mounted on a buoy platform with a solar panel/battery system that is deployed in the spring and retrieved late fall. The frequency, power intensity, and duration of output are adjusted to target specific algal groups (i.e., cyanobacteria or green algae) and operate

over the summer growing season. For cyanobacteria, the objective is to rupture the gas vacuoles to eliminate their ability to move up/down in the water column to maximize photosynthesis, whereas the objective for green algae is to compromise the cell wall bond and effect the chloroplast causing internal cell disruption. The ultrasound devices have been used on eutrophic raw water storage reservoirs with limited success in controlling nuisance cyanobacteria blooms (Schneider et al. 2015). In turbid, eutrophic systems, attenuation of the ultrasonic sound waves is more rapid and less effective, whereas in oligotrophic systems there should be much less signal attenuation, resulting in greater effectiveness. The technology has proven effective on most singled cell cyanobacteria and green algae in smaller waterbodies and does not affect fish, birds, or domestic animals in the water. However, this technology has not been effective on filamentous or colonial types of algae that include–*Pithophora*, *Chara*, *Nitella*, *Hydrodictyon*, *Cylindrospermopsis*, *Scendesmus*, *Oscillatoria* or *Euglena* (Sonic Solutions LLC). The advantage of ultrasonic technology is its preemptive treatment to reduce algae growth over the growing season and to eliminate the occurrence of nuisance algae blooms, as well as to reduce or eliminate the use of algaecides.

Operational Control Strategies

Operational controls for the raw water intake in Lake Angela are limited given the single deep water intake, but when the treatability is extremely poor, the intake may need to be closed for a period of time to allow conditions to improve. This operational approach has obvious implication on water treatment; thus, the duration may be limited given the finished storage capacity. The recent upgrade to the DSPUD treatment system and the redundant 0.5 MGD clarification/filtration basins provides system backup during high turbidity events and presents an opportunity to optimize one system to treat source waters severely impacted by wildfires. Operational changes within the water treatment should be prepared for if/when ash deposition results in a high suspended solids load to Lake Angela. High turbidity conditions will require operating at lower flows, shorter filter runs, increased backwashing, and having to adjust treatment for the composition of the ash such as clay particles versus total organic carbon [(TOC), OHA 2021]. Organic carbon from wildfires contains more humics and aromatics than typical TOC, and is more likely to form disinfection by products [(DBPs), Hohner et al. 2016]. Therefore, higher coagulant doses and additional oxidation may be required to address the TOC and taste and odor issues, along with more chlorine to address the oxidants. Powdered activated carbon may even be considered with the coagulant. Small single source water treatment systems such as DSPUD are at risk when wildfires impact source waters. Therefore, additional finish water storage capacity should also be evaluated as an operation control if wildfires impact Lake Angela or its watershed.

Summary

Lake Angela is a high-elevation, oligotrophic lake in the headwaters of the South Yuba Watershed that serves as the sole raw water storage supply for DSPUD. The high-elevation lakes of the Sierra Nevada have experienced decades of atmospheric nitrogen deposition that has gradually increased the algal productivity of these lakes, and more recently, ash deposition from regional wildfires have added to the nitrogen and phosphorus content of many lakes. These factors combined with the warming of the Sierra Nevada lakes, due to climate change, have resulted in more frequent algal blooms that are slowly eroding their oligotrophic status. Because Lake Angela serves as a sole source water supply, these environmental factors place it at greater risk of increased nutrient-algae impacts, given the treatability issues associated with nuisance algae levels and turbidity.

Other factors that may influence the development of nuisance algae growth and contribute to other water quality issues lie within Lake Angela and its two distinct basins interconnected by a ditch. The basin morphology influences the thermal and water circulation patterns in the lake which create conditions favorable for internal nutrient loading when stratified during the summer. The location of the raw water intake in the southern basin also influences the water circulation and thermal stratification patterns in the lake, such that the northern basin may experience the release of phosphorus, iron and manganese from the sediment. This internal release of nutrients and metals can affect algal production and treatability issues once the lake becomes fully mixed in the fall.

Because the hydrology and water quality data for Lake Angela is limited, we have recommended a monitoring plan and water quality assessment study that will improve DSPUD's understanding of the dynamics that affect the ecology and steady-state conditions of the lake. This information will also help inform DSPUD how to best prepare for and to manage an upset in water quality conditions in their drinking water supply and treatment process. Lastly, we have provided guidance on in-lake control strategies that are the most appropriate for managing algae production in a pristine source water lake, as well as, incorporating flexibility and optimizing the water treatment process to adaptively manage an extreme turbidity event.

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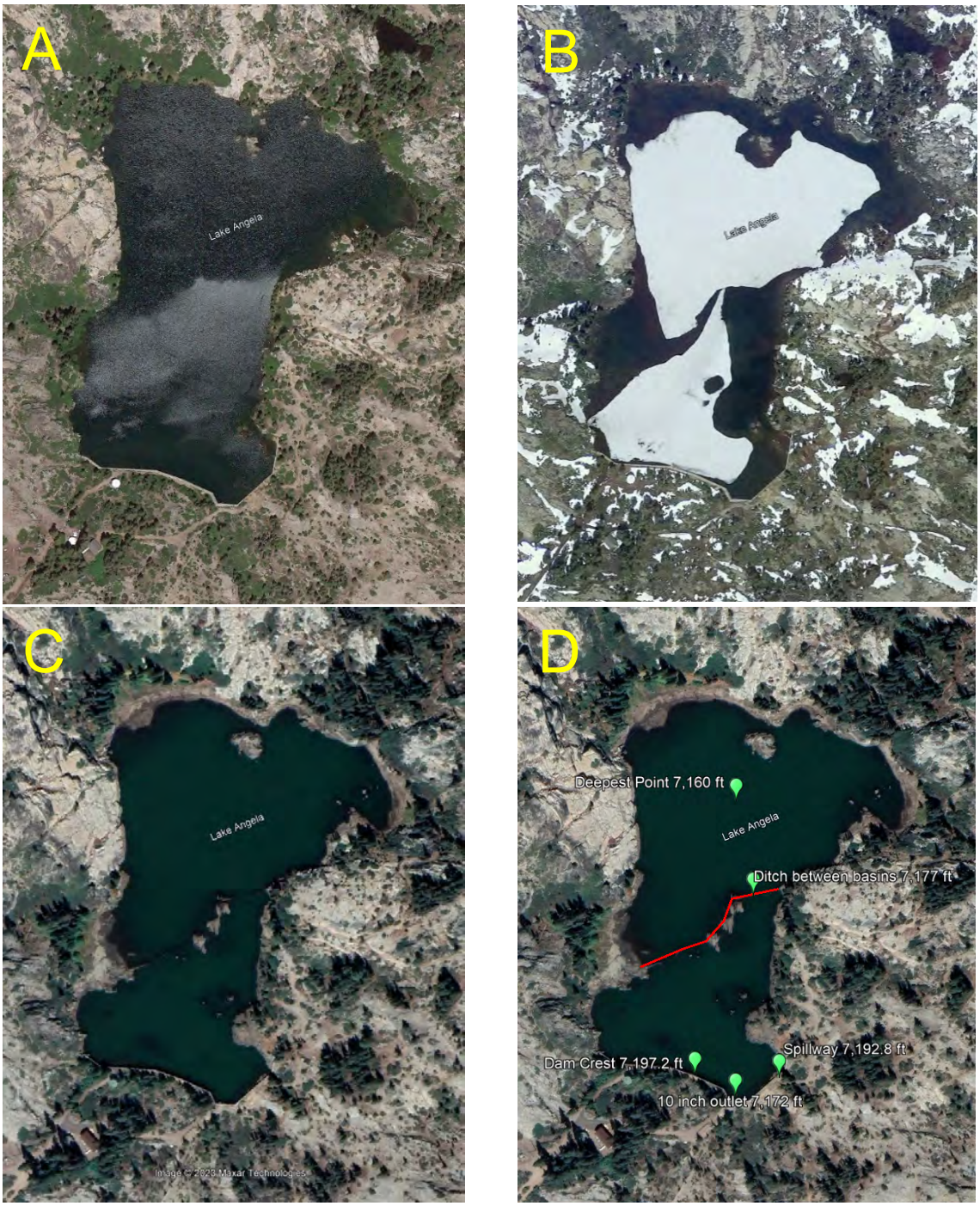

Figure 1: Satellite images of Lake Angela and relevant elevation datum [(NAVD88), Google Earth]. A = July 10, 2010, B = April 29, 2014, C = September 18, 2018, D = September 18, 2018, red line indicates historical dam location and natural sill.

Figure 2: Monthly average lake elevations with sample size standard deviations, 2008-2015 and 2022 data overlay. 1 = Jan to 12 = Dec.

APPENDIX B: DROUGHT RISK EVALUATION TECHNICAL MEMORANDUM

WESTERN HYDROLOGICS
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TECHNICAL MEMORANDUM

TO: Steve Palmer/ Jim King, Donner Summit Public Utility District

FROM: Jeff Meyer, Western Hydrologics

DATE: September 2023

RE: ***Revised Task 2: Evaluate Risk of Drought Impacts***

Donner Summit Public Utility District (DSPUD, or District) has contracted with GEI Consultants, Inc., and Western Hydrologics to develop a water supply resiliency study to address DSPUD's present challenges related to water supply reliability. This study includes an evaluation of the risk of drought and climate change impacts to Lake Angela and the identification of shortage criteria which will ultimately be incorporated into DSPUD's abridged Water Shortage Contingency Plan (WSCP) to be developed as part of this study.

To evaluate the risk of drought and climate change impacts, Western Hydrologics developed an operations simulation model which incorporated current and future demands under historic and climate change hydrologic scenarios. These scenarios were tested over a period containing water years 1976-2021 to include the hydrologic variability which occurs in the basin. Table 1 provides a summary of the assumptions used for the studies performed for this effort. The purpose of this Technical Memorandum is to describe the development of the model, evaluate model results, and to document the risk of potential drought impacts under both existing conditions and anticipated 2040 future conditions.

Table 1 - Model Scenario Summary Table

Scenario	Facilities	Hydrology	Study Period	Demand
Existing	Existing	Historic	1976-2021	Historic (2017 – 2021 Avg)
Future	Existing	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents

Hydrology

As part of the model development, two hydrology datasets were developed. The first data set is a representation of historic inflow to Lake Angela derived from the Kidd Lake inflow data created as part of the inflow dataset for Nevada Irrigation District's Federal Energy Regulatory Commission Relicensing effort of the Yuba-Bear Project, updated for their current *Plan for*

Water effort. This dataset was developed by using the methods described in the Hydrologic Analysis Technical Memorandum – Final Report for Nevada Irrigation District dated November 12, 2020. The dataset extends through 2021 and includes an inflow time series to Kidd Lake. Kidd Lake is about 5 miles west of Lake Angela with similar watershed characteristics and watershed areas. Lake Angela has a watershed area of 0.225 square miles and an elevation of 7,210 ft mean sea level (msl). Kidd Lake has a watershed area of 1.9 square miles and an elevation of about 6,640 ft msl. One significant difference is the elevation of the watersheds of the two lakes. Lake Angela's watershed reaches over 7,600 ft msl, while Kidd Lake's watershed highest point is 6,750 ft msl.

Initially, the Kidd Lake inflow dataset was scaled by watershed area to develop a daily inflow dataset for Lake Angela from 1976 through 2021. Eq. 1

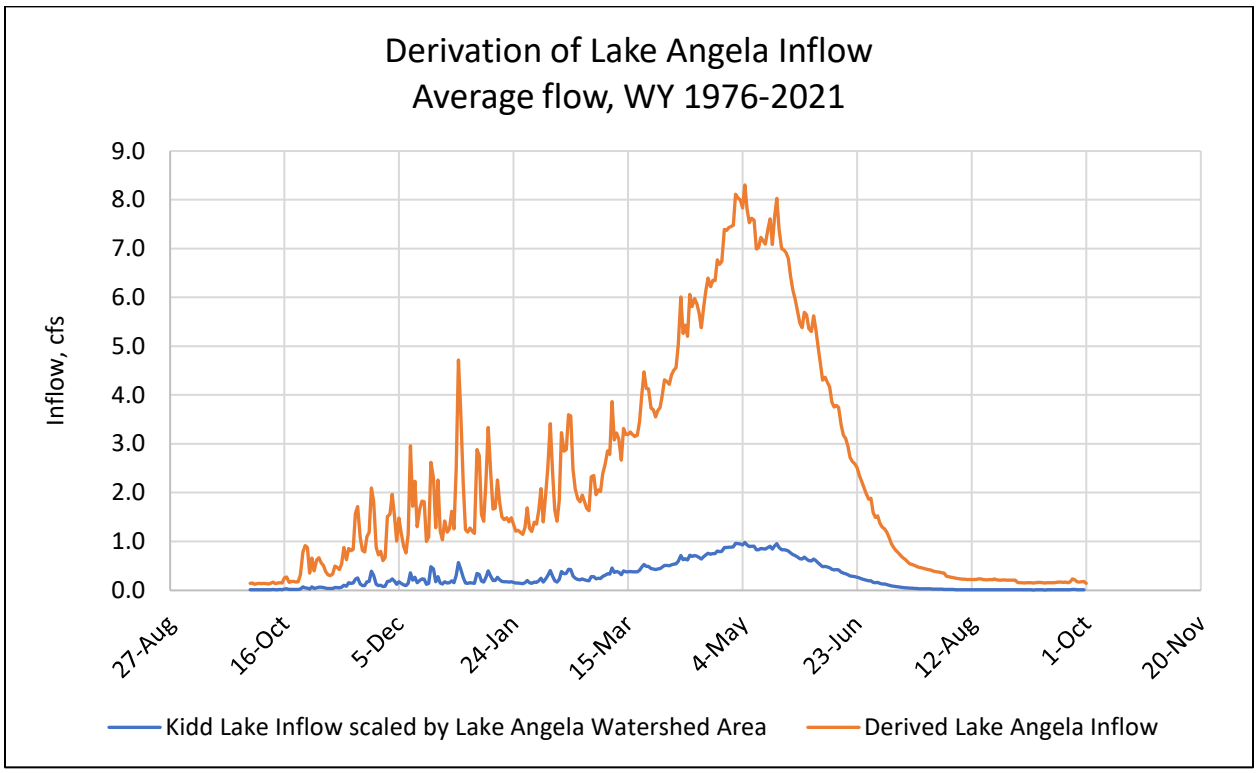
Eq 1. $\text{Inflow}_{KL} \times (\text{Watershed Area}_{LA} / \text{Watershed Area}_{KL})$

Where:

Inflow_{KL}	equals the time series inflow to Kidd Lake
$\text{Watershed Area}_{LA}$	equals the watershed area of Lake Angela (0.225 sq mi)
$\text{Watershed Area}_{KL}$	equals the watershed area of Kidd Lake (1.9 sq mi)

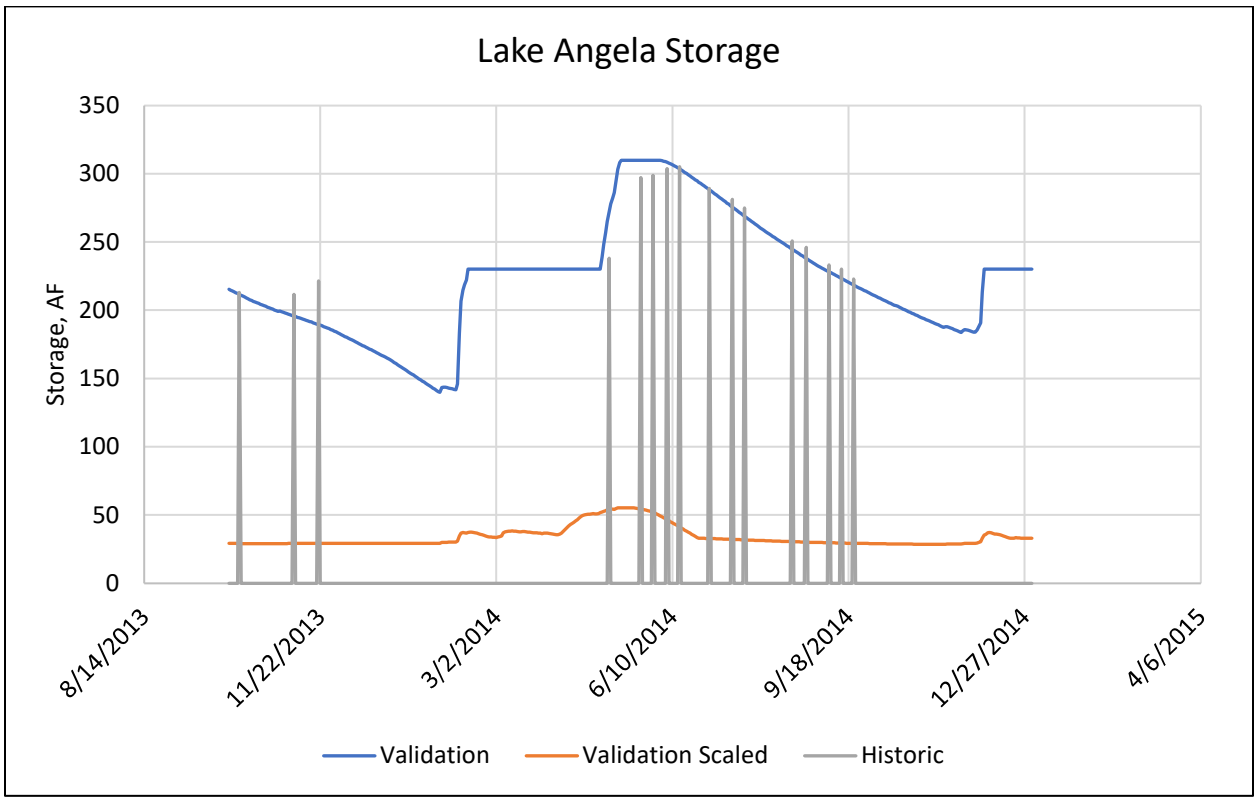
The resulting inflow, shown in blue in Figure 1, was used in the model simulation with historic demand.

Figure 1 - Lake Angela Inflow



The simulation model was used to test the Lake Angela Inflow hydrology dataset by comparing model operations to the historic storage data using historic deliveries. Figure 2 illustrates the simulated storage compared to the historic storage. The gray lines show the intermittent historic Lake Angela storage. The orange line represents the simulated storage using the scaled Kidd Lake inflow and the historic consumptive deliveries. Using the scaled hydrology data results in storage volumes that are much lower than historic. The results indicate that the scaled approach produces inflows that are much lower than actual inflows. A second validation study was performed using the full Kidd Lake inflow dataset. The blue line illustrates the resulting storage which very closely matches the historic storage. Although Figure 2 only shows 2014, these trends are similar for the 2009 – 2015 period where both historic storage and historic delivery data are available. The full derived Lake Angela inflow dataset demonstrates a better fit for the Lake Angela inflow than the scaled Kidd Lake inflow. The derived inflow dataset was chosen as a suitable dataset for the Lake Angela inflow for this analysis.

Figure 2 - Simulated Lake Angela Storage vs Historic Storage



Climate Change Hydrology

Climate change adjusted hydrology was developed using CalSim 3 2040 Central Tendency[1] for the U.S. Geological Survey Gage at South Yuba River at Cisco Grove. This dataset was developed for the 2021 California Department of Water Resources (DWR) Delivery Capability Report. The 2040 Central Tendency (or 2040 CT) data at Cisco Grove was disaggregated into daily timestep data and adjusted for the historic Lake Angela inflow dataset. The study period for this climate change dataset is October 1, 1975 – September 30, 2015. Because the CalSim dataset only has data through 2015, years similar to 2016 through 2021 were identified to extend the record through 2021.

[1] Technical Addendum to the State Water Project Final Delivery Capability Report 2021 - https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/CalSim-3/DCR2021

Figure 3 - Climate Change 2040 CT vs Historic

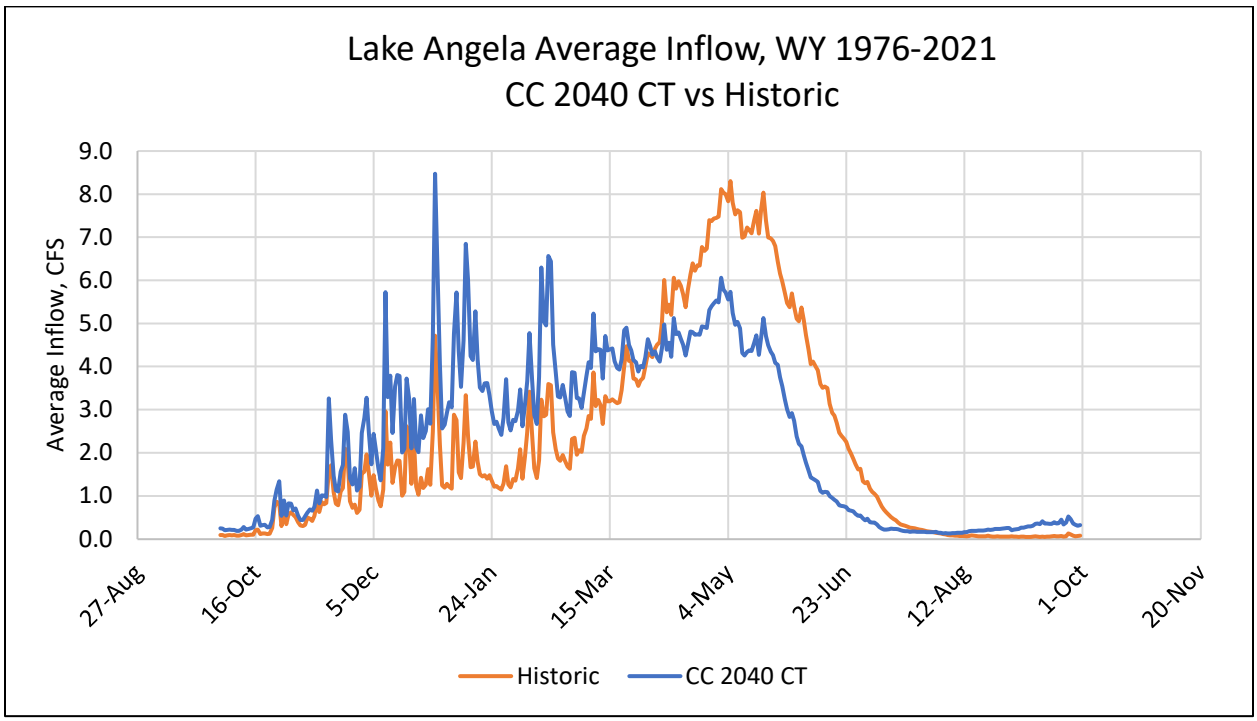


Figure 3 illustrates the historic unimpaired inflow to Lake Angela compared to the 2040 level of climate change hydrology. The total volume of the climate change hydrology is 0.2 percent less than the historic hydrology. The most significant change is the shift in runoff pattern. This shift reflects the diminished snowpack expected in the future, resulting in a potential need for changes in operations or a replacement of the snowpack storage.

These inflow datasets contain watershed runoff modeling results for two climate conditions as shown in Table 2.

Table 2 - Climate Conditions

Condition	Description
Historical	Historical representation of Lake Angela inflow from Kidd Lake Inflow
2040 Future Conditions	Future conditions projected climate for a thirty-year period centered on 2040 (2025-2055)

Figure 4 – Historical versus 2040 Future Conditions

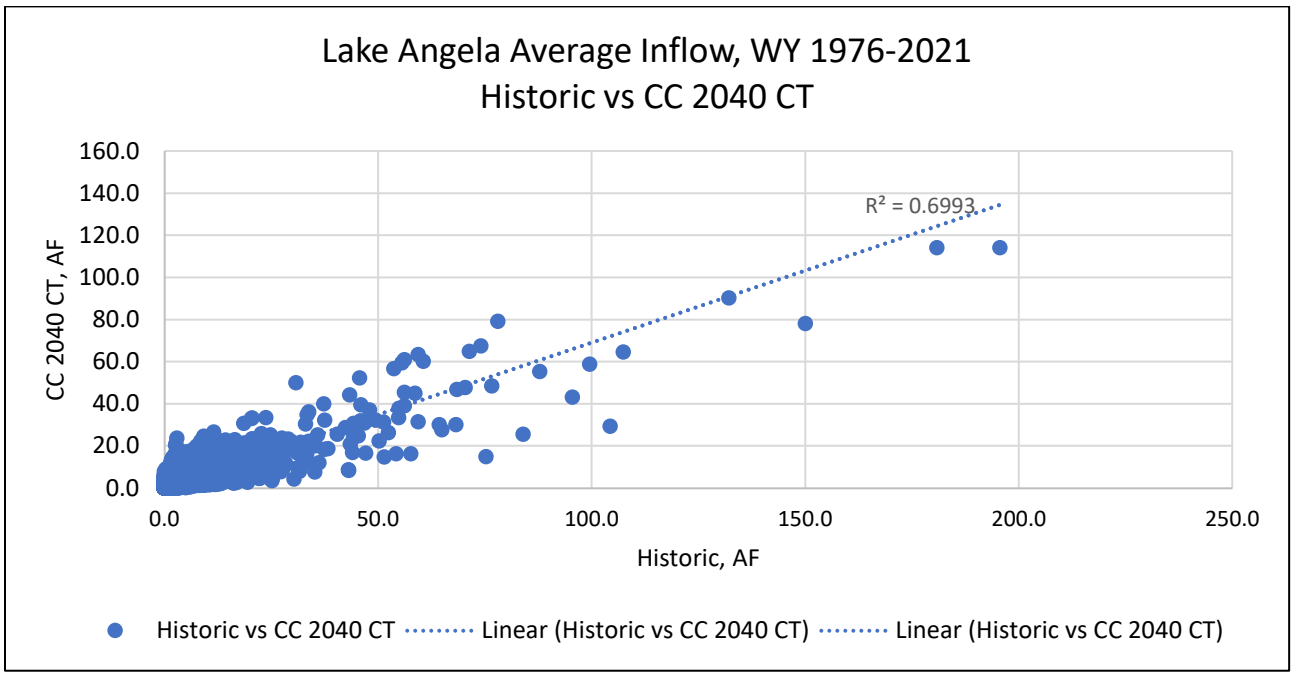


Figure 4 shows how the two datasets compare. The climate change scenario volume is almost identical to the historic hydrology.

Evaporation

No evaporation rate data was available specifically for Lake Angela. As an estimate of evaporation, the DWR Bulletin 73, *"Evaporation from Water Surfaces in California"*, dated November 1979 combined with the Lake Valley Reservoir evaporation pattern from CalSim 3 was used. There is a fairly strong relationship between elevation and evaporation. Table 3 illustrates the estimated evaporation rates used for Lake Angela. According to Google Earth Lake Angela is located at about 7,200 ft msl. We estimated the annual evaporation to be about 32.01 inches for the Historic study and 32.98 inches for the 2040 CT climate change study. Neither the annual total nor the monthly rates are significantly different between the Historic and 2040 CT climate change datasets.

Table 3 - Evaporation Rates, inches

Month	Historic	2040 CT
Oct	2.53	2.62
Nov	0.94	0.98
Dec	0.49	0.51
Jan	0.37	0.38
Feb	0.74	0.76
Mar	1.33	1.36
Apr	2.47	2.52
May	3.58	3.69
Jun	4.57	4.73
Jul	5.89	6.04
Aug	5.26	5.41
Sep	3.86	3.97
Total	**32.01**	**32.98**

Division of Safety of Dams Storage Requirements

Lake Angela operations are subject to the California Division of Safety of Dams (DSOD) Jurisdiction. Lake Angela must reduce storage capacity to 230 acre-feet (AF) from November 1 through April 30. Maximum capacity is 310 AF from May 1 to October 31. In addition, the District will operate the spillway gates considering how wet the year is. For example, when the year is very wet the spillway gates may remain open beyond April 30 to bypass large inflows to Lake Angela.

Consumptive Demands

Another stressor on the Lake Angela water supply are the consumptive demands summarized in the following sections and shown in Table 4.

Existing Demands

The Existing demands were developed by averaging the deliveries reported as beneficial use to the State Water Resources Control Board[2]. Averaging the deliveries for the 2017 – 2021 period on a monthly basis results in the *Existing Consumptive Demand, AF* column in Table 3. The District estimates that an additional 20 percent of the raw water supply is needed for backwashing the water treatment plant in addition to the consumptive demand. Total existing demand is 243 AF/YR.

Future Demands

The future demand data set was developed using the Soda Springs Area Plan, dated October 25, 2016[3] for the portion of the District that exists in Nevada County. The Land Use designations from the Placer County General Plan were used for the portion of the District that exists in

[2] https://ciwqs.waterboards.ca.gov/ciwqs/ewrims/listReportsForWaterRight.do?waterRightId=37062
[3] https://www.nevadacountyca.gov/995/Soda-Springs-Area-Plan

Placer County. The Nevada Irrigation District 2020 Urban Water Management Plan dated July 2021[4] was used as a reference to identify unit demands for the various Service Area types identified in both the Soda Springs Area Plan and the Placer County area. Total treated water demand within the Nevada County service area is 218 AF/YR. The Service Area within Placer County lies completely within the Sugar Bowl Ski Resort. Most of the parcels within the resort area with a treated water demand are residential. The Placer County GIS Department provided the land use designations within the Ski Resort[5]. The same demand factors within the Nevada Irrigation District 2020 Urban Water Management Plan were applied to the residential parcels within the Sugar Bowl Ski Resort to develop the Future level demands. Total Placer County demand is anticipated to be 160.6 AF/YR. Total District (Nevada County + Placer County) demand is anticipated to be approximately 378.6 AF/YR. After adding water needed for backwashing the treatment plant, total demand is 454.3 AF/YR

Build out demands are expected to be about 176 AF/YR more than the existing demand. With an anticipated increase in backwash water, that increase rises to 211 AF/YR more than existing demand. Table 4 summarizes the demands used for both the existing and future conditions.

Table 4 - Existing and Future Consumptive Demands

Month	Existing Consumptive Demand, AF	Baskwash (20% of Demand), AF	Total Existing Demand, AF	Build out Consumptive Demand, AF	Baskwash (20% of Demand), AF	Total Future Demand, AF
Jan	23.7	4.7	28.4	44.2	8.8	53.1
Feb	16.2	3.2	19.4	30.2	6.0	36.3
Mar	17.5	3.5	21.0	32.7	6.5	39.3
Apr	15.2	3.0	18.2	28.4	5.7	34.1
May	14.4	2.9	17.3	26.9	5.4	32.3
Jun	18.3	3.7	22.0	34.3	6.9	41.1
Jul	18.3	3.7	21.9	34.2	6.8	41.0
Aug	16.9	3.4	20.3	31.7	6.3	38.0
Sep	14.1	2.8	16.9	26.4	5.3	31.6
Oct	14.8	3.0	17.8	27.7	5.5	33.3
Nov	14.6	2.9	17.5	27.3	5.5	32.8
Dec	18.5	3.7	22.2	34.6	6.9	41.5
Total Potable Water Demand	**202.5**	**40.5**	**243.0**	**378.6**	**75.7**	**454.3**

Model Schematic

The model schematic shown in Figure 5 illustrates the modeled facilities and linkage. The modeled facilities are overlayed on the watershed features to approximate the geographic

[4] https://www.nidwater.com/ag-urban-water-management-plans

[5] http://maps.placer.ca.gov/Html5viewer/Index.html?configBase=http://arcgis/Geocortex/Essentials/REST/sites/LIS_Public/viewers/LIS_Base-Public/virtualdirectory/Resources/Config/Default

location of the facilities. The schematic is made up of three node types and two link types, described below.

Nodes

Rector Reservoir Storage

Consumptive demands

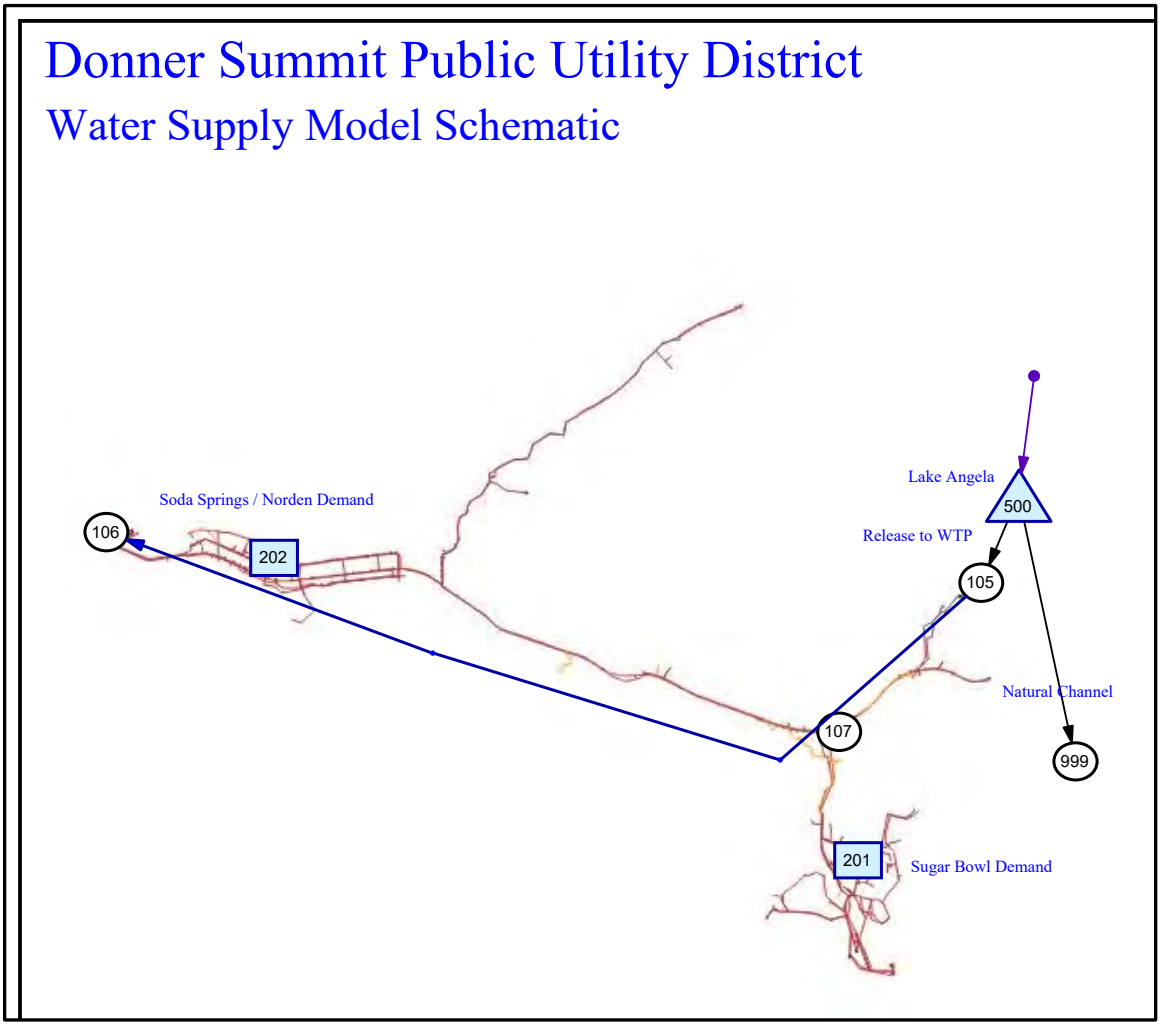
Junctions or points of interest

Arcs

Natural channel

Canal or Pipelines

Figure 5 – Lake Angela Reservoir System Schematic



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Results

The results of these studies are discussed as Existing Conditions and Future Conditions.

Existing Conditions

The Existing conditions study represents current historic hydrology and existing demands. Table 5 summarizes the assumptions for this study.

Table 5 - Current Level Study Assumptions

Scenario	Facilities	Hydrology	Study Period	Demand
Existing	Current	Historic	1976-2021	Historic (2017 – 2021 Avg)

As discussed above, this scenario uses a demand that was developed by averaging the actual historic demands for the 2017 – 2021 period. The average demand repeats for every year of the simulation. Figure 6 shows the Annual Delivery and Demand for the period of record. In 1976, 1977, 1988, 2013, 2014 and 2015 there are shortages imposed. This was done in a manner that tries to mimic curtailments imposed by the State Water Resources Control Board by looking at the April through July runoff. These curtailments are for the April through the following February period only and impose a 25 percent reduction in delivery. These reductions in delivery exactly meet the reduction in demand meaning that these are following the curtailment logic and are not because storage has reached dead pool at Lake Angela.

Figure 6 - Existing Condition Deliveries

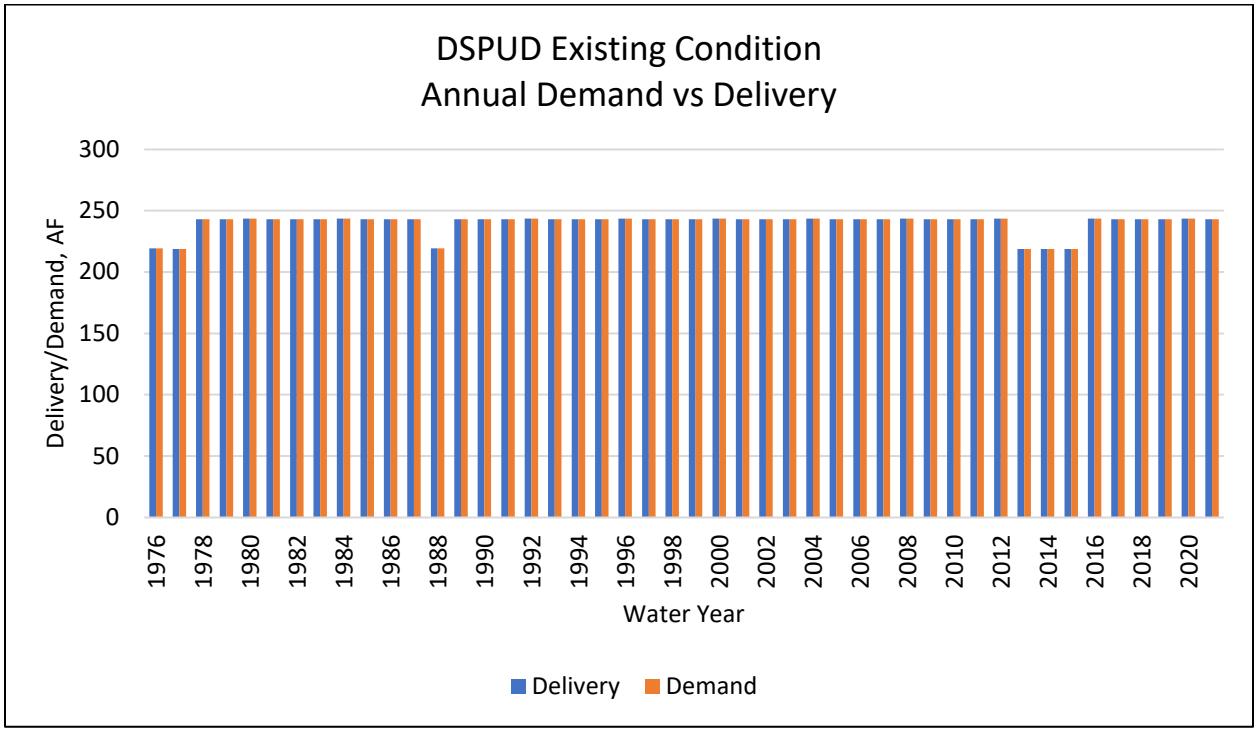
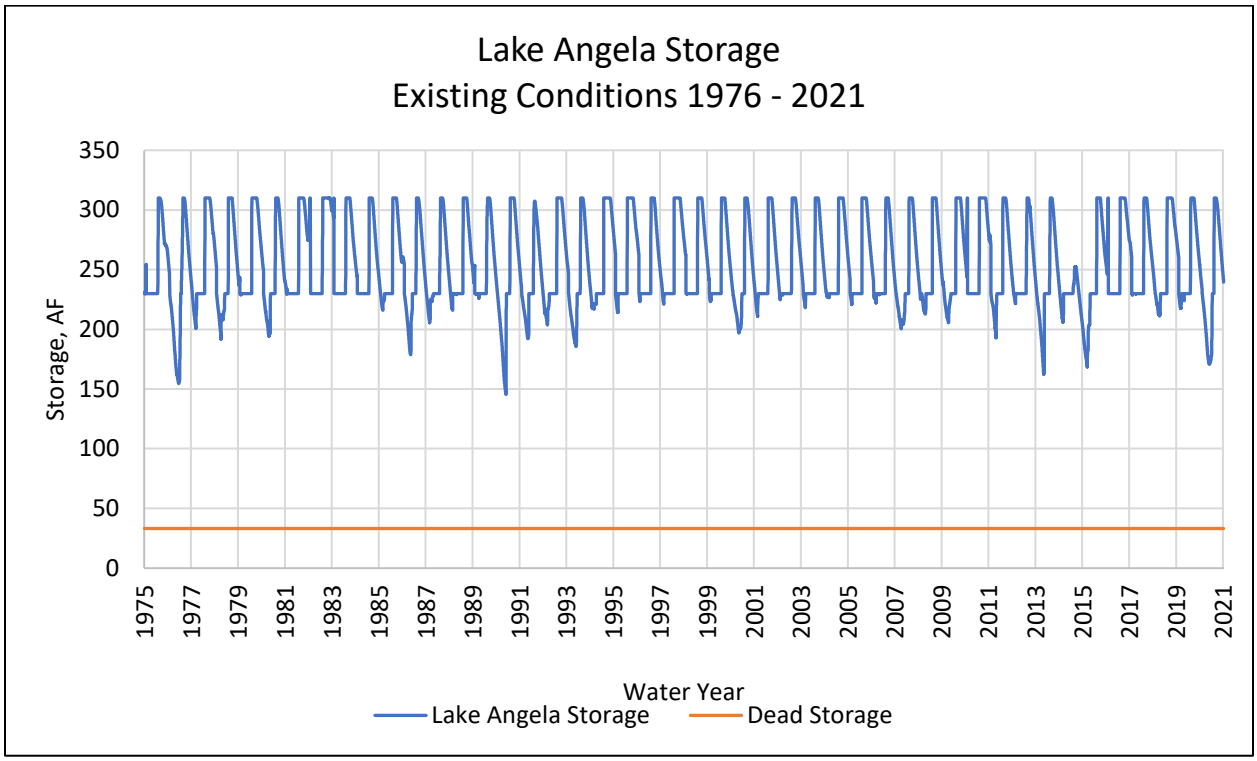


Figure 7 illustrates the resulting storage at Lake Angela. The minimum storage at Lake Angela for the study period occurs in 1990 and is roughly 140 AF, leaving approximately 100 AF of additional storage above the dead pool. At Existing Condition, there is plenty of water supply to meet existing demand. Assuming the system is in good working order, study results indicate there is very little risk of water supply shortage due to drought.

Figure 7 - Existing Conditions Lake Angela Storage



Future Condition

The Future Condition study evaluates the impacts of the climate change hydrology coupled with an anticipated future level demand. Table 6 summarizes the assumptions.

Table 6 - Future Level Study Assumptions

Scenario	Facilities	Hydrology	Study Period	Demand
Future	Existing	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents

The Future Condition study includes full build out demands with climate change hydrology. The demands account for growth in the service area, and as discussed in the consumptive demands section are expected to increase by 211 AF/Yr. Figure 8 illustrates the deliveries made in the Future Condition simulation. This study includes the same curtailment logic as the baseline

study. However, in this study the deliveries do not exactly meet the demand. This is because the storage at Lake Angela has fallen to dead pool and no other supplies are available.

Figure 8 - Future Condition Deliveries

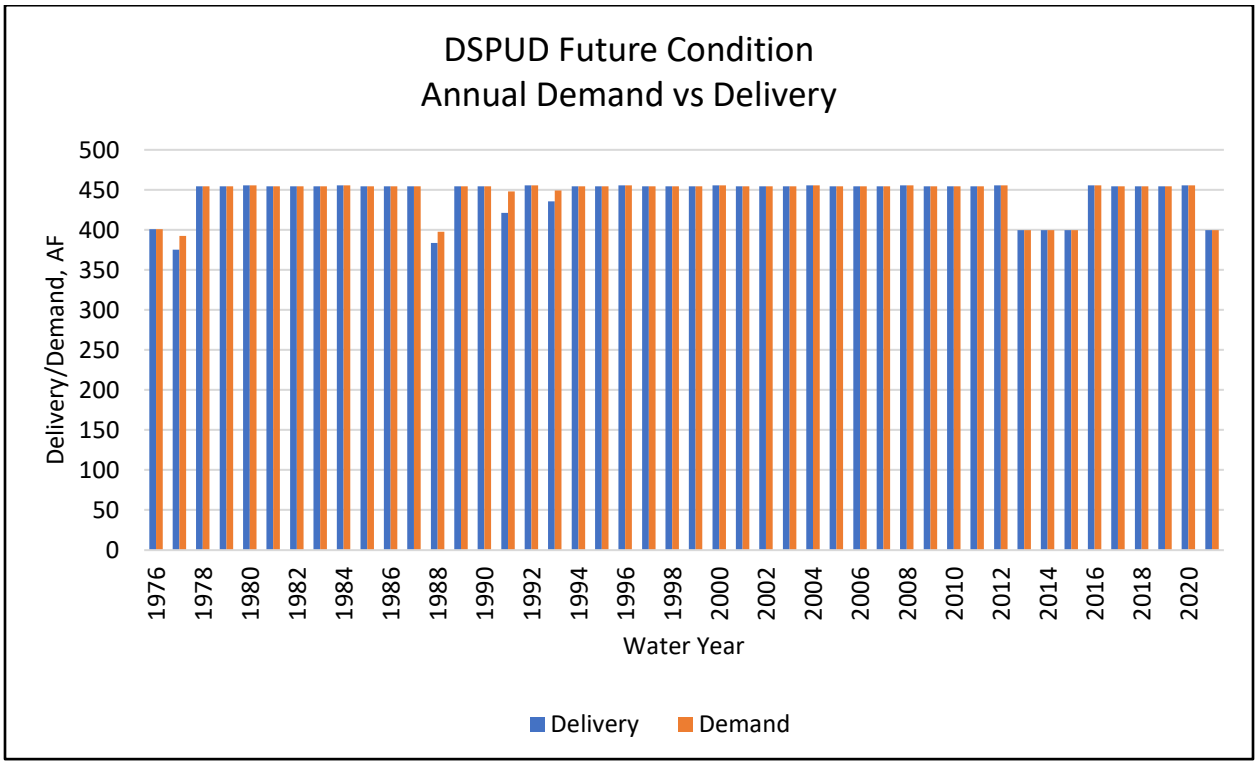
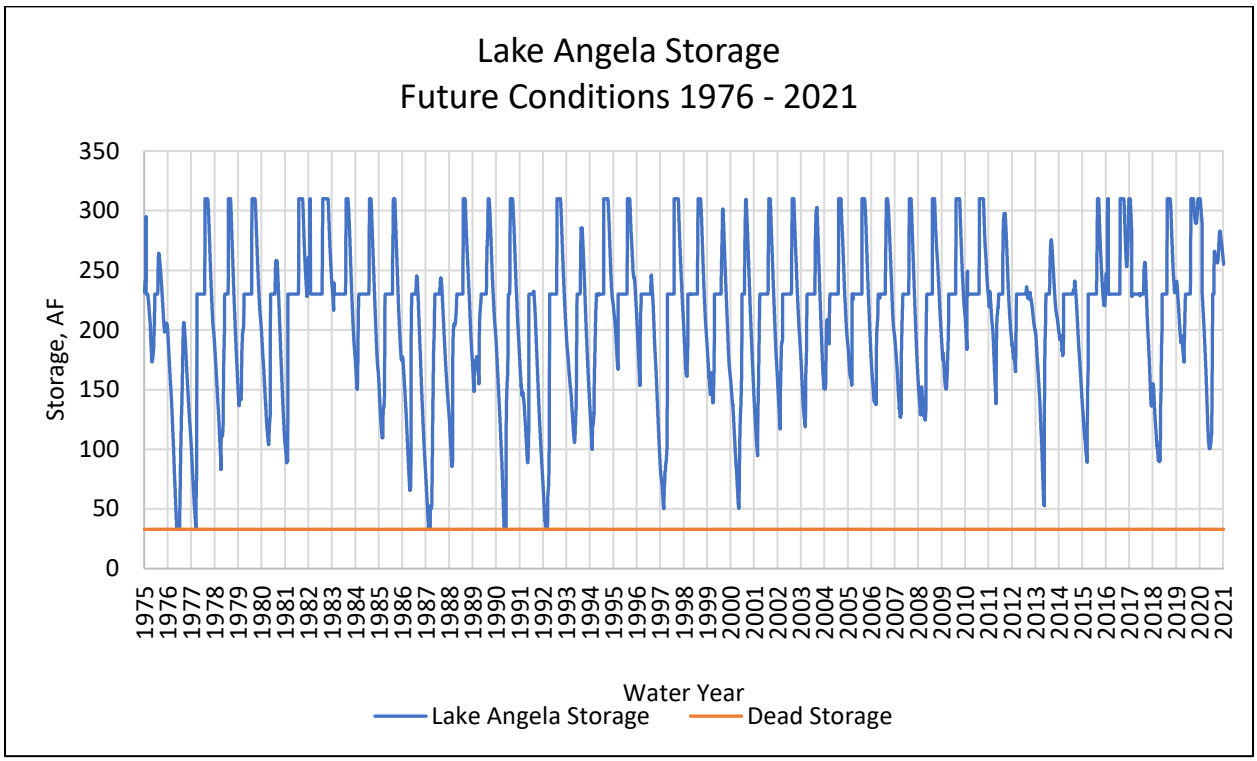


Figure 9 illustrates the Lake Angela storage at the Future Level. Figure 9 shows that Lake Angela falls to dead pool eight times during the 1976 – 2021 simulation period. Figure 9 also shows that Lake Angela is constrained by the DSOD storage limitation. The DSOD limitation prevents storage of more than 230 AF during the November 1 through April 30 period. The shift in runoff patterns of climate change hydrology results in a change in the ability to store water. This pattern shift combined with the DSOD requirement prevents Lake Angela from maximizing the water supply.

Figure 9 - Future Condition Lake Angela Storage



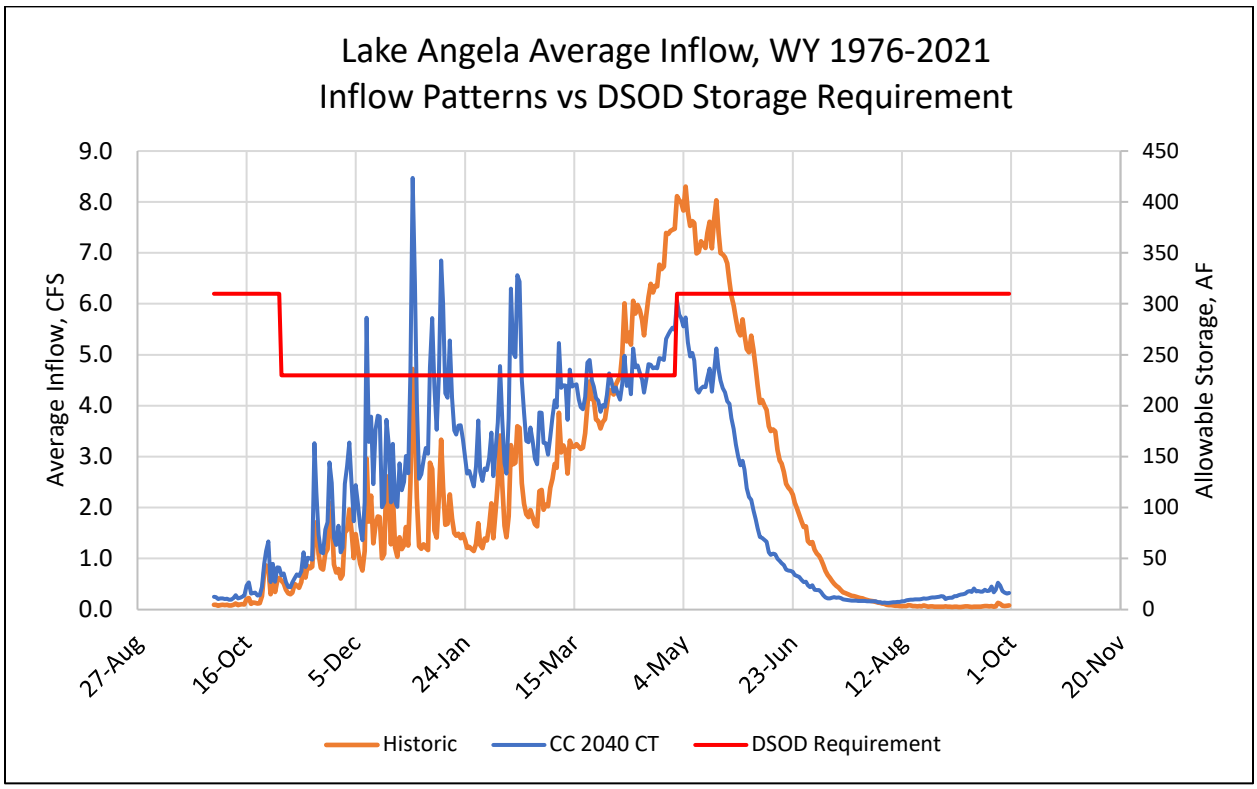
At the Future Condition, additional steps will be needed to meet anticipated demand. Changes to the DSOD requirements and drought contingency plans could be used to improve the reliability of the supply. Under current operating criteria at future demand, study results indicate the reservoir will not always fill and in 5 years out of the 45-year study period, Lake Angela will be drawn down to dead pool.

Conclusions

Based on the results of these studies, it appears under the existing condition, Lake Angela can meet the existing demand. At the future condition, it appears that the increased demands coupled with the shift in runoff patterns due to climate change and the DSOD storage requirements limit Lake Angela from maximizing the available water supply.

The shift in the runoff pattern of the climate change hydrology is significant. Figure 10 illustrates the impact of climate change hydrology. The orange line shows the historic average annual runoff pattern. The blue line shows the climate change average annual runoff pattern. The red line shows the maximum allowable storage ordered by DSOD. Figure 10 illustrates how the climate change hydrology peak runoff pattern shifts earlier in the year to the December through March period as compared to the historic April through June period. Although both average annual runoff volumes are almost identical, use of climate shifted supply is hindered by the DSOD requirements that were developed for the historic runoff patterns.

Figure 10 - Lake Angela Inflow vs DSOD Storage Requirment



With the increase in demand, capturing the earlier runoff to fill Lake Angela is necessary. Figure 9 illustrates that the DSOD requirement causes spills, limiting the gain in storage to full pool in just 31 of the 45-year study period. Eliminating or revising the DSOD requirement will increase water supply and therefore reduce the delivery shortages.

Recommendations

The studies performed for this task have illustrated a need for the development of a water supply index and consideration of a revision to the DSOD storage requirements.

Demands in the Future Condition scenario have increased by 211 AF/YR. In water short years, delivery reduction policy could be developed to impose deficiencies in those years where storage begins to approach dead pool. Developing a water supply index based on storage in Lake Angela Reservoir plus snowpack storage could be developed to determine when deficiencies should be imposed. This index and associated deficiency schedule will then inform the District's abridged WSCP.

The current DSOD storage requirements were developed for runoff patterns that generally peak in mid to late April thru May. Climate change projections indicate future runoff patterns will result in peak runoff in the January thru February period. Because of the shifting runoff patterns and the current DSOD requirements coupled with anticipated demands, filling Lake Angela in the future may become less frequent. Figure 10 illustrates the current DSOD requirements against the historic and future runoff patterns. By visual inspection, it appears

that allowing storage up to full pool could be shifted to as early as March maximizing water supply while still protecting the dam. The District should periodically request that DSOD review the current requirements and make adjustments as runoff patterns shift.

APPENDIX C: IDENTIFICATION OF POTENTIAL SOURCES OF ADDITIONAL WATER TECHNICAL MEMORANDUM

Consulting
Engineers and
Scientists

GEI Consultants

Technical Memorandum

Identification of Potential Sources of Additional Water

Donner Summit Public Utility District (DSPUD, or District) has contracted with GEI Consultants, Inc., and Western Hydrologics (GEI Team) to develop a water supply resiliency study to address DSPUD's present challenges related to water supply reliability. This study includes an investigation of the potential sources of additional water that may be available to supplement the District's existing supply, considering the requirements of Senate Bill (SB) 552 which requires that small water suppliers have at least one backup source of water supply, or a water system intertie, that meets current water quality requirements and is sufficient to meet average daily demand by January 1, 2027. In response to the requirements of SB 552, the GEI Team has explored backup supplies such as groundwater, alternative surface water supplies, and an intertie with a neighboring water district. Supplemental surface water supplies explored include expansion of the existing Lake Angela or development of supplies in the vicinity. This investigation includes identification of potential new supplies including requirements or amendments for water rights filings. The potential sources of water identified herein will be assessed by the GEI Team at the beginning of Fiscal Year 2023-2024 consistent with the GEI Team's contract with DSPUD and their proposal to the District dated October 6, 2022.

Groundwater

California's diverse natural environment is due in part to the complex geologic processes that have shaped the landforms of the State. California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. There are eleven geomorphic provinces in California based on each regions defining features based on geology, faults, topographic relief, and climate.

DSPUD is in the Sierra Nevada Geomorphic Province in California which consists of a tilted fault block nearly 400 miles long. Its east face is high and rugged with multiple scarps, contrasting with the gentle western slope that disappears under sediments of the Great Valley Province. The granitic rocks of the Sierra Nevada batholith include older, deformed diorite and quartz in the western areas and younger undeformed granodiorite in the eastern areas.

A search for reports on the groundwater resources in the DSPUD service area did not identify any reports in the direct area. Limited reports are available regarding groundwater in hard rock environments such as those within the District. Information from those reports was used to complete this summary of the hard rock aquifer system.

GEI Consultants, Inc.
2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670
916.631.4500 fax: 916.631.4501
www.geiconsultants.com

There are some alluvial valleys located within the Sierra Nevada that are identified as groundwater basins by the California Department of Water Resources (DWR). These basins may be considered as potential sources of groundwater. The groundwater basin closest in proximity to the DSPUD service area is the Martis Valley Groundwater Basin. The groundwater potential from both the underlying hard rock geologic environment and the nearby Martis Valley Groundwater Basin are described in the following sections.

GEI Consultants, Inc.
2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670
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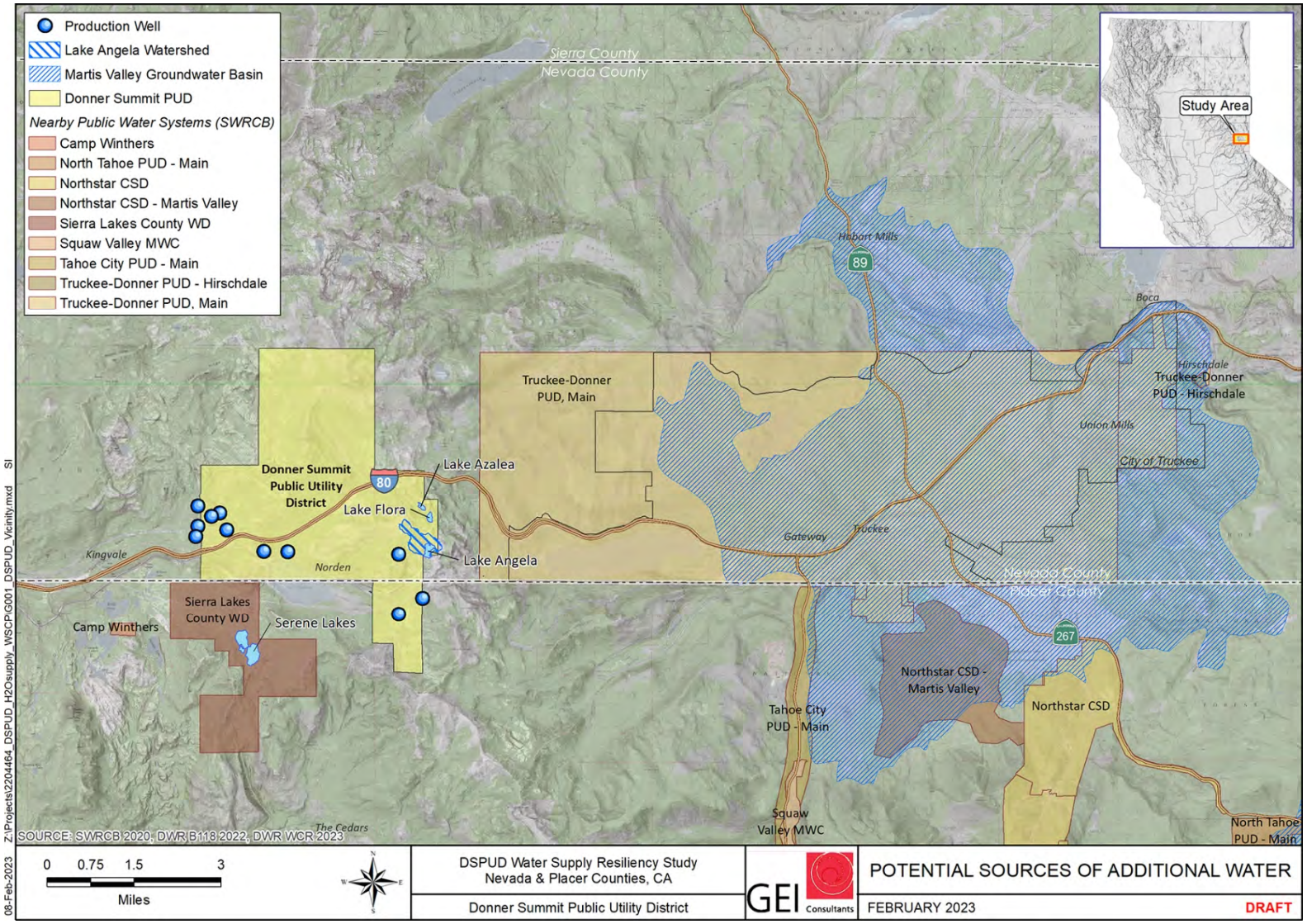

Figure 1: Site Vicinity Map

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Martis Valley Groundwater Basin

The Martis Valley Groundwater Basin (Basin Number 6-067) is located about six miles east of DSPUD as shown on Figure 1. The District is about 7,200 feet above mean sea level (msl) and is located west of the crest of the Sierra Nevada (at about 7,700 feet msl). The Martis Valley Groundwater Basin has an elevation around 5,700 feet msl and is located east of the crest of the Sierra Nevada crest. The description of the Martis Valley Groundwater Basin below is provided from the DWR California Water Plan – Groundwater Update 2013.

The Martis Valley Groundwater Basin (6-067) is located in Placer and Nevada counties covering approximately 36,381 acres. The groundwater basin is a fault-bounded basin located east of the Sierra Nevada crest. The elevation of Martis Valley is between 5,000 feet and 6,000 feet above msl. The mountains surrounding the Martis Valley are 1,000 feet above msl to more than 3,000 feet above msl. Average precipitation in the valley is 23 inches in the lower elevations of the eastern portion and nearly 40 inches in the western areas. Well-yield data from well completion reports indicate that groundwater production in the Martis Valley Groundwater Basin can be as much as 1,500 gallons per minute (gpm), with an average yield of 150 gpm.

The primary groundwater-bearing formations in the Martis Valley Groundwater Basin are the Miocene to Pliocene basin fill deposits interbedded with sediments of stream and lake deposits. There is also extensive Pleistocene glacial material and recent alluvial material that have embedded impermeable clay and silt layers.

Groundwater in the DSPUD Service Area

Surface Geology

The DSPUD area is generally underlain by granitic rocks composed of quartz diorite and granodiorite and some metamorphosed rocks. When exposed at the ground surface, both of these rock types have joints and fractures. The joints and fractures occur near the ground surface as a result of reduced pressure from the overburden being removed (compared to where they were formed at depth) resulting in the rocks expanding creating the joints and fractures. Various studies suggest that the joints and fractures occur to a depth of about 200 to 250 feet below the ground surface.

Occurrence and Movement of Groundwater

Granitic and metamorphic rocks do not have a the alluvial deposits of aquifers in groundwater basins, and their porosity is limited to the secondary porosity created by the joints and fractures occurring within the rocks so they yield little, if any, water to wells unless the wells intersect the fractured or weathered joints and faults. As a result of the limited porosity, the more favorable well sites occur at the saturated intersections of the joints and fractures. Additionally, deeper wells do not significantly increase the yield of wells as there are fewer joints and fractures at depth.

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Recharge and Discharge of Groundwater

Groundwater in the area moves primarily through the fractures in the hard rock and is recharged by rain and melting snowmelt. In general, the movement of ground water parallels the land surface as the groundwater flows from areas of higher elevation toward areas of lower elevation. DSPUD is located near the crest of the Sierra Nevada and likely behaves as a groundwater divide with groundwater moving downslope away from the ridges towards discharge areas including wells, springs, or lakes.

Groundwater Wells in DSPUD Service Area

The DWR Sustainable Groundwater Management Act (SGMA) Data Viewer provides information related to the Well Completion Reports (WCRs) of wells drilled throughout the state. These include production wells in addition to monitoring wells and wells that have been destroyed.

A review of the of the SGMA Data Viewer identified the location of eleven WCRs of production wells in the District service area (*see* Figure 1). Numerous monitoring wells and destroyed wells are also present within the District. Information from the WCRs for the production wells is provided in Table 1. The Depth to Water, Depth to Static Water Level and Yield presented on the WCRs are recorded during the well drilling and development process. The depth to water and well yield vary annually and seasonally based on hydrologic conditions and the amount of groundwater pumping. There are no records of the current groundwater levels or well yields for wells in the District on the DWR SGMA Data Viewer.

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Table 1: Summary of Well Completion Reports in the DSPUD Service Area

WCR Number	PLSS MTRS	Purpose	Depth (feet)	Depth to Water (Feet)	Depth to Static Water Level (Feet)	Yield (GPM)
454564	17N14E16	Domestic	350	50		6
108066	17N14E15N	Domestic	305	36		5.5
e0322489	17N17E12	Domestic	275	60		15
924720	17N14E22	Domestic	480	130		10
e0363903	17N14E21	Domestic	345	18		40
789412	17N14E22	Domestic	585	434	200	60
2018-007198	17N14E23	Domestic	652	240	85	20
33914	17N14E23	Domestic	175	37		4
e0113690	17N15E17	Public	500	35	375	45
749305	17N15E21	Domestic	240	30	25	45
433360	17N15E20	Public	300	12		35
		Average	**382**	**98**	**171**	**26**
		Min	**175**	**12**	**25**	**4**
		Max	**652**	**434**	**375**	**60**

Dry Wells in DSPUD Service Area

The DWR Dry Well Reporting System is for Californians experiencing problems with their private (self-managed) wells (not for residents served by a public water system already regulated by the State). Dry wells can be caused by many drought and non-drought factors, including aging infrastructure like corroded wells, declining groundwater levels, changes to weather patterns and climate, or surface water and groundwater management.

Potential Surface Water Supplies

Lake Angela Expansion

Lake Angela is located in the southern portion of Nevada County just north of the Placer County line. The lake sits on Donner Summit at an elevation of 7,195 feet, located between Donner Pass Road to the south, Donner Ski Ranch to the west, the Pacific Crest Trail to the east, and Interstate 80 to the north (*see* Figure 1). The lake is located at the crest of the South

Yuba River watershed and has a drainage area of about 0.225 square miles. The watershed receives approximately 52 inches per year of liquid precipitation in the form of rain and snow. In wet years that annual total can be as high as 112 inches and in dry years the annual total can be as low as 20 inches.

The GEI Team understands that Lake Angela spills almost every year. There is the potential to capture this additional supply by expanding the capacity of Lake Angela. The District currently operates using its senior Pre-1914 water right which appears to allow the District to directly divert up to 9.3 cubic feet per second (cfs) and divert to storage up to 310 acre-feet (AF) per year. The additional water supply needed for the expansion of Lake Angela could already be authorized by its permitted water right (Application 30332, Permit 21118). The permitted right allows the District to directly divert up to 1.54 cfs between November 1 through June 1 and divert up to 310 AF to storage collected from November 1 through July 31.

Development of Nearby Natural Lakes

There are two natural lakes in immediate proximity to Lake Angela. Flora Lake, located about 0.4 mi north of Lake Angela, and Azalea Lake, located about 0.1 mi northwest of Flora Lake (*see* Figure 1), could be used as a backup supply to the District. Azalea Lake spills into Flora Lake which then spills to a drainage that flows to Donner Lake and ultimately to the Truckee River. Because these lakes are within the Truckee River watershed, supplies from these lakes are not subject to Sacramento – San Joaquin Delta watershed curtailments nor would they be subject to agreements with Nevada Irrigation District and Pacific Gas and Electric. Water from these lakes could be pumped to Lake Angela or directly to the District's water treatment plant in an emergency. Currently, the potential water supply volume from these lakes is unknown. Any water supplies from these lakes would require new water rights.

Intertie with Sierra Lakes County Water District

As shown in Figure 1, Sierra Lakes County Water District (SLCWD) is located adjacent to DSPUD. The water supply lines for DSPUD and SLCWD are approximately one mile apart, thus an intertie with the SLCWD is another potential source of backup water supply for the District. The primary source of SLCWD's water supply is Lake Serena, one of the two connected waterbodies that comprise Serene Lakes located in the North Fork American River watershed. Lake Serena sits on Donner Summit at an elevation of 6,881 feet and is located about 3.5 miles southwest of Lake Angela and 1.7 miles south of Interstate 80 (*see* Figure 1). SLCWD holds water rights (Application 20601, Permit 14248) to Lake Serena that include a direct diversion of up to 0.8 cfs capped at 394 AF per year and diversion to storage of up to 783 AF per year. The combined volume of the direct diversion limit and diversion to storage limit allows for the development of up to 1,177 AF per year. The season of diversion for these rights is October 1 through June 30.

According to SLCWD annual reports, annual average usage over the past five years is less than 100 AF, which provides the opportunity to support delivery to DSPUD in an emergency. Conversely, with water rights of up to 664 AF per year and a current demand of about 240 AF per year, DSPUD currently has an excess supply and could also support SLCWD deliveries in an emergency. To support an intertie between DSPUD and SLCWD, both districts would need to amend their water rights by filing a petition with the State Water Resources Control Board to include the place of use of the partnering district in their respective place of use.

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2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670
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APPENDIX D: EVALUATION OF POTENTIAL SOURCES OF ADDITIONAL WATER COST ESTIMATE TECHNICAL MEMORANDUM

GEI Consultants

Technical Memorandum

Prepared For: Donner Summit Public Utility District

Prepared By: Stephen Oldemeyer

Reviewed By: Mark Martin

Date: September 14, 2023

Subject: Donner Summit Public Utility District
Evaluation of Potential Sources of Additional Water
Cost Estimate Technical Memorandum

GEI Project No. 2204464

Donner Summit Public Utility District (DSPUD, or District) has contracted with GEI Consultants, Inc., and Western Hydrologics (GEI Team) to develop a water supply resiliency study (Study) to address DSPUD's present challenges related to water supply reliability. This study includes an investigation of the potential sources of additional water that may be available to supplement the District's existing supply, considering the requirements of Senate Bill (SB) 552 which requires that small water suppliers have at least one backup source of water supply, or a water system intertie, that meets current water quality requirements and is sufficient to meet average daily demand by January 1, 2027. In response to the requirements of SB 552, the GEI Team has identified the following options for backup supplies:

- Groundwater
- Alternative surface water supplies, including:
    - Lake Angela Expansion
    - Development of nearby lakes
- Sierra Lakes County Water District (SLCWD) intertie

These potential sources of additional water are described in the GEI Team's *Identification of Potential Sources of Additional Water Technical Memorandum* (TM). Subsequent to the development of this TM, the District also identified hauled/bottled water as a potential supply source to be considered as part of this Study.

The purpose of this TM is to document the infrastructure requirements and reconnaissance-level (Class 5) cost estimates associated with the backup supply options. As detailed in the *Task 2: Evaluate Risk of Drought Impacts* TM developed by Western Hydrologics, the development of cost estimates for each of the supply options assumes a future demand of approximately 454.3 acre-feet per year (AFY).

Preliminary Screening

Based on a preliminary evaluation, some of the options identified were eliminated based on two key criteria:

1. Feasibility, i.e., does this option advance the goals of the study
2. Redundancy, i.e., are there better options available to meet the same goals

Below are the options that have been eliminated from further evaluation with a brief reason for their elimination:

- **Groundwater** (eliminated due to feasibility): the groundwater basin closest in proximity to the DSPUD service area is the Martis Valley Groundwater Basin (Basin Number 6-067). This basin is located about six miles east of DSPUD and about 2,000 feet below in elevation. The topographical change and distance from the District's treatment facility are limiting factors when it comes to cost. The pump station required to overcome the elevation change along with the six miles of piping over the terrain would increase costs such that this option would be economically infeasible.
- **Development of nearby lakes** (eliminated due to redundancy): currently, the potential water supply volume from these lakes is unknown. Moreover, any water supplies from these lakes would require new water rights.

The options that remain following the preliminary screening are as follows:

- **Option 1:** Lake Angela Expansion
- **Option 2:** Sierra Lakes County Water District intertie
- **Option 3:** Hauled/bottled water

Cost Estimates

Option 1: Lake Angela Expansion

Lake Angela sits on Donner Summit at an elevation of 7,195 feet, located between Donner Pass Road to the south, Donner Ski Ranch to the west, the Pacific Coast Trail to the east, and Interstate 80 to the north. The lake is located at the crest of the South Yuba River watershed and has a drainage area of about 0.225 square miles. The watershed receives approximately 52 inches per year of liquid precipitation in the form of rain and snow. Lake Angela operations are subject to the California Division of Safety of Dams (DSOD) Jurisdiction. Lake Angela must reduce storage capacity to 230 acre-feet (AF) from November 1 through April 30. Maximum capacity is 310 AF from May 1 to October 31.

The GEI Team understands that Lake Angela spills almost every year. There is potential to capture this additional supply by expanding the capacity of Lake Angela. The District currently operates using its senior Pre-1914 water right which appears to allow the District to directly divert up to 9.3 cubic feet per second (cfs) and divert to storage up to 310 AFY. Increasing the capacity of Lake Angela will satisfy the additional water supply necessary to meet demand increases due to forecasted population growth, as well as allowing for climate change projection runoff pattern changes. The increase in storage may not however satisfy all the requirements of SB 552, which requires that the District have at least one backup water supply by January 1, 2027. If it is determined that an

expansion of Lake Angela is not sufficient to meet SB 552 requirements, requiring the District to have a backup water supply in addition to increasing the capacity of Lake Angela, this option will not be economically feasible.

Note that the cost estimates for Option 1 are considered reconnaissance level (Class 5) cost estimates. If DSPUD decides that increasing the reservoir capacity is the option that satisfies all the agencies requirements and provides the biggest benefit to the District, a more precise design of the structure will be required, and quantities/costs could be impacted.

Construction Cost Estimate

To increase the capacity of Lake Angela to meet future demands (~454 AFY), the crest would need to be raised by 10 feet along the entire length of the dam (815 feet) from the low crest elevation of 7192.8 to a low crest of 7202.8. A 10-foot dam raise was identified based on an extrapolation of the Lake Angela area capacity curve (see Figure 1), as there is minimal data available on the existing topography and bathymetry near the dam. Google Earth imagery at the dam suggests that minimal increases to the dam length would be required to raise the crest. Costs associated with increasing the dam length are assumed for the purposes of this Study to be nominal and captured in the overall reinforced concrete costs. To increase the height of the dam by 10 feet, the section of concrete will need to be extended downstream and four separate cross sections will be utilized to accomplish the increased height (shown in Figure 2). The larger concrete section is required to ensure stability and prevent overturning. Note that increasing the reservoir's storage will require the Water Control Manual to be adjusted to allow larger volumes throughout the year.

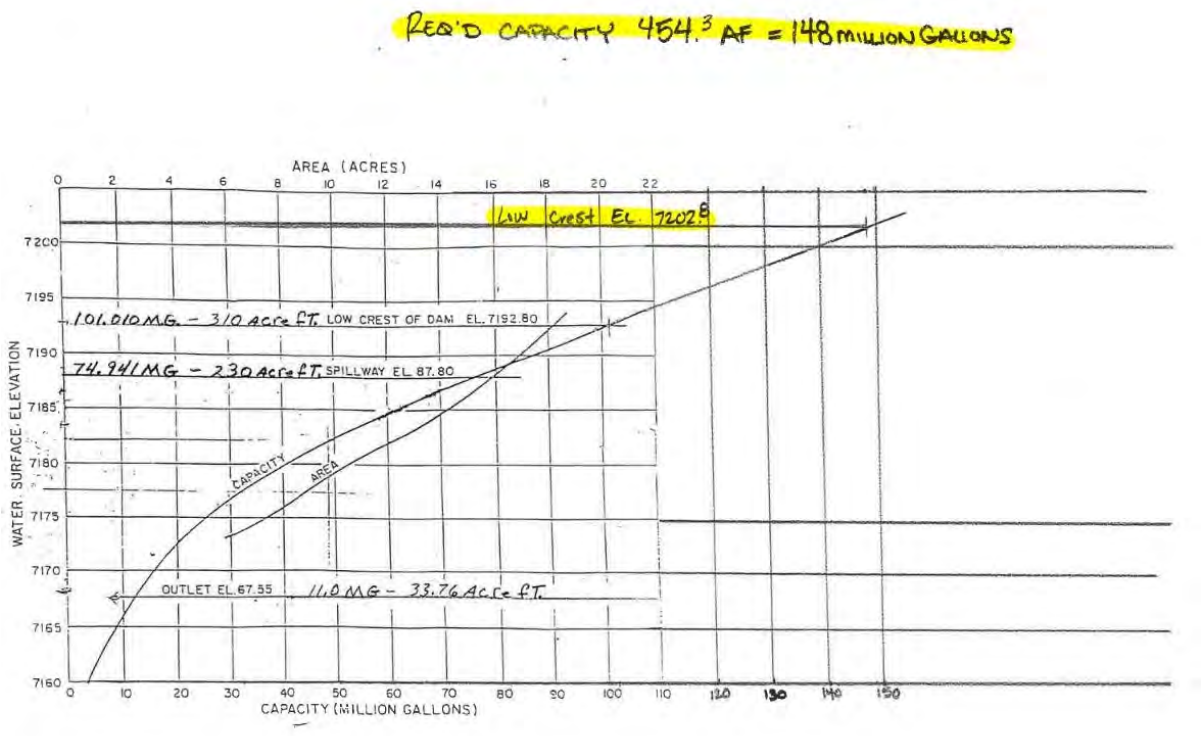


Figure 1: Area Capacity Curve

The development of Class 5 cost estimates for Option 1 assumed the following:

- Minimal earthwork would be required before concrete placement. No additional excavation would be required in the reservoir.
- Concrete of the existing structure is satisfactory to build upon.
- Minimal additional length would be required.
- Quantities were based off of similar sections that were used during the retrofit of Lake Angela Dam in the 1970s.

The cross section shown in Figure 2 was used to develop a reinforced concrete quantity for Option 1.

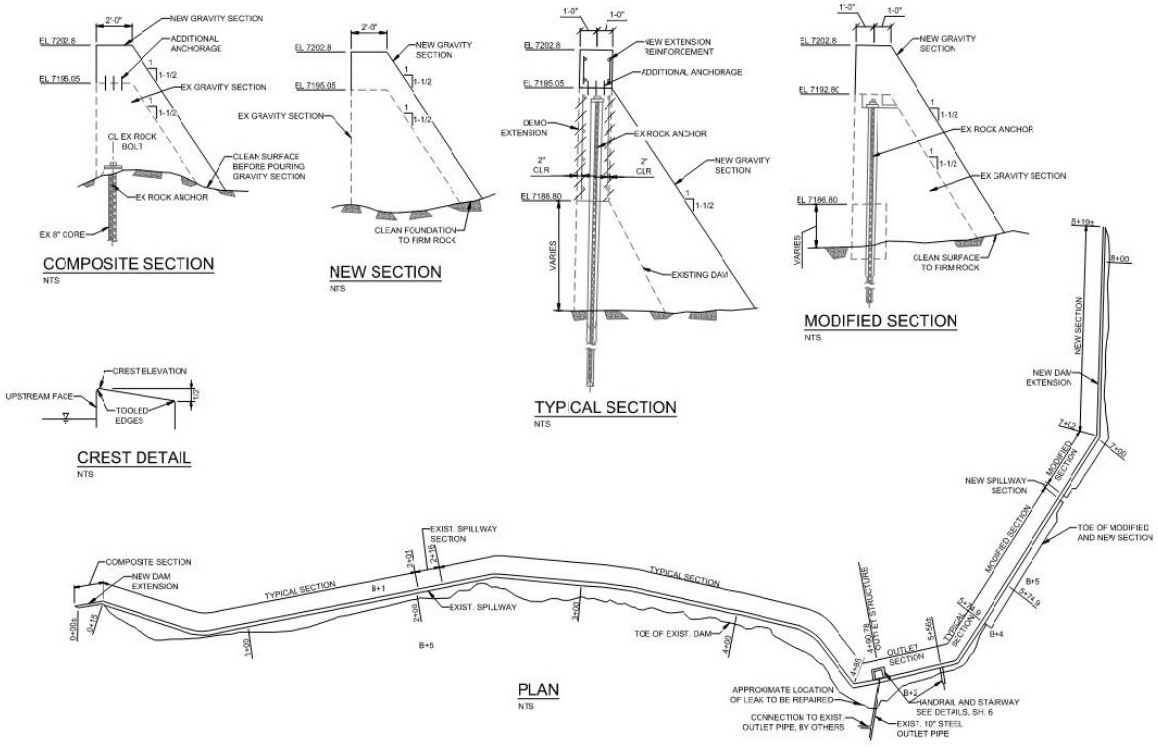


Figure 2: Dam Cross Section

The quantity of reinforced concrete per foot of dam is an average of 6.0 cubic yards per foot. Thus, the total quantity of reinforced concrete assumed for Option 1 is:

6.0 cubic yards/foot x 815 feet = 4,890 cubic yards

Typical costs to construct a gravity structure of this height average around $4,800 per cubic yard, thus the total cost for reinforced concrete under Option 1 is:

$4,800/cubic yard x 4,890 cubic yards = $23,500,000

Additional anchors or piles beneath the structure would be required and are assumed to be captured in the reinforced concrete cost. Anchors would be driven into the hard rock and are assumed to be shallow in overall depth due to the surrounding rock formation in the area. In addition to the costs for reinforced concrete, additional costs will be incurred to increase the height of the existing spillway. To replace the stoplog closure spillway would require removal of the existing structure and replacement of the 144 ft^2 opening. A unit cost of \$4,750/ft^2 is assumed for replacement of the stoplog closure spillway, which equates to a total cost of:

$$\$4,750/ft^2 \times 144\ ft^2 = \$684,000$$

Thus, the total major construction cost for Option 1 is approximately:

$$\$23,500,000 + \$684,000 = \$24,200,000$$

Mobilization and demobilization costs are added to the total major construction cost to arrive at a total construction cost. Mobilization and demobilization costs are based on a percentage of the total major construction cost and are usually between 5-10%, dependent upon location and proximity to supply centers. Since this is an area considered rural and mountainous, 10% is assumed for mobilization and demobilization, with a total cost assumed cost of \$2,420,000.

Thus, the total construction cost for Option 1 is:

$$\$24,200,000 + \$2,420,000 = \$26,620,000$$

Other owner costs are also presented as percentage-based costs during planning, engineering, and construction. Other owner costs include design and engineering, legal, engineering during construction, and construction management. These costs are identified below, assuming 15% of the total construction cost for design and engineering, 2% for legal and engineering during construction, and 10% for construction management.

Design and Engineering Costs (15%) = \$4,000,000

Legal Costs (2%) = \$532,000

Engineering During Construction (2%) = \$532,000

Construction Management (10%) = \$2,662,000

The total cost for Option 1 is thus:

$$\$26,620,000 + \$4,000,000 + \$532,000 + \$532,000 + \$2,662,000 = \$34,346,000$$

Environmental Cost Estimate

When faced with a discretionary project which is not exempt from the California Environmental Quality Act (CEQA), a Lead Agency must prepare an initial study (IS) to determine whether the project may have a significant adverse effect on the environment. Although CEQA categorically exempts existing facilities, it is assumed that the California Department of Fish and Wildlife (CDFW), as a Responsible Agency, will not issue a Lake or Streambed Alteration (LSA) Agreement with such a determination. Because it is assumed that potential effects can be reduced to a level that is

less than significant with the incorporation of mitigation measures, a mitigated negative declaration (MND) can be adopted (Public Resources Code Section 21080).

It is assumed that Option 1 would require development of an IS/MND, which would include a reconnaissance-level onsite survey. Option 1 would also likely require a lake or streambed alteration (LSA) notification to CDFW, along with a supporting Biological Technical Report (BTR). The BTR would also require a reconnaissance-level onsite survey.

A total cost of $100,000 is assumed for development of the IS/MND, LSA notification to CDFW, and the BTR under Option 1.

Additional Costs Associated with Increased Diversions from Lake Angela

Expanding Lake Angela will incur additional costs due to the *"Agreement Between Nevada Irrigation District (NID), Pacific Gas and Electric Company (PG&E), and Donner Summit Public Utility District".* The agreement states that PG&E and NID agree to allow DSPUD to use up to 260.7 AF of water from Lake Angela per year without compensation. Diversions in excess of 260.7 AF would require DSPUD to compensate NID for the loss of water, and PG&E for the loss of power, per the agreement. Assuming DSPUD would utilize the full forecasted future demand of 454.3 AFY under Option 1, the total owed to each party would be as follows.

Compensation to NID

NID would be compensated annually per the NID Rate Schedule 5-K for Raw Intermittent Flow Irrigation Water. These rates are released bi-annually, however for the purposes of this Study, the 2022 rate of $80.04 per acre foot is assumed to evaluate compensation to NID.[1] Assuming a total volume of 193.6 AF of water is diverted (454.3 AF – 260.7 AF), the annual compensation to NID would be:

193.6 AF x $80.04/AF = $15,000/year

Compensation to PG&E

PG&E would be reimbursed for the additional water supplied (193.6 AF) assuming an average marginal unit cost of energy ($/KWH) and using the maximum duty through all downstream powerhouses as identified in the agreement (3,403 killowatt-hour [kWh]/AF). An average marginal unit cost of energy of $0.31/kWh was assumed to estimate compensation to PG&E. With these assumptions, the annual compensation to PG&E would be:

193.6 AF x 3,403 kWh/AF x $0.31/kWh = $204,000/year

Total Estimated Cost

The total estimated cost for Option 1 including the cost for construction ($34,350,000) along with environmental documentation and permitting ($100,000) is estimated at $34,450,000. Option 1, absent an amendment to the agreement between the District, NID, and PG&E, would also require

[1] Note that these rates are increased up to $99.88 per acre foot in the event of a drought declaration.

annual payment to these entities totaling $219,000. The annual payment to these entities would likely increase over time as the unit rates identified above escalate as a result of inflation or other factors.

Option 2: Sierra Lakes County Water District Intertie

As previously shown in the *Identification of Potential Sources of Additional Water TM*, SLCWD is located adjacent to DSPUD. The water supply lines for DSPUD and SLCWD are approximately 0.8 miles apart. The primary source of SLCWD's water supply is Lake Serena. SLCWD holds water rights (Application 20601, Permit 14248) to Lake Serena that include a direct diversion of up to 0.8 cfs capped at 394 AF per year and diversion to storage of up to 783 AF per year. The combined volume of the direct diversion limit and diversion to storage limit allows for the development of up to 1,177 AF per year. The season for this diversion of water is October 1 through June 30. This coincides with the restricted level of Lake Angela.

According to SLCWD annual reports, annual average usage over the past five years is less than 100 AF, which provides the opportunity to support delivery to DSPUD in an emergency. Conversely, with water rights of up to 664 AF per year and a current demand of about 240 AF per year, DSPUD currently has an excess supply and could also support SLCWD deliveries in an emergency. The geographic location and topography of the two systems allow for an easy connection between the two.

Construction Cost Estimate

The development of Class 5 construction cost estimates for Option 2 assumed the following:

- The location of the connection to the SLCWD water system would occur in the northeastern corner of their water system, at the intersection of Pahatsi Rd and Soda Springs Rd. The existing elevation at this location is approximately 6,944. See Figure 3 for new pipeline and intertie locations.

- The new intertie would require a minimum of an 8-inch main built from high-density polyethylene (HDPE) that would be installed via open cut excavation and placed along Soda Springs Road, going north. The connection to the DSPUD water supply system would occur south of the town of Soda Springs at the intersection of Bunny Hill Rd and Soda Springs Rd. The elevation at this intersection is 6,765.

- Since the system tie-in is below the existing system at SLCWD, a booster pump station would not be required to meet demands. For the DSPUD system to serve as a backup source for SLCWD, a booster pump station could be required to pump water back and forth from the two systems. This booster pump station is estimated to cost around $150,000 assuming a 100 foot raise in elevation with a capacity of 100 gpm.

- If the existing line at the intersection of Bunny Hill and Soda Springs is less than 6 inches, an additional 0.1-miles of pipeline would be required to tie into the system in Soda Springs. The additional pipe cost will not be significant, but the additional pipeline would require crossing the railroad line that traverses south of the town of Soda Springs (see Figure 4). The costs associated with permitting and impacts on construction schedules could be significant. Cost estimates for Option 2 assume directional drilling beneath the existing railroad will not be required.

- Minimal impacts to other buried utilities.

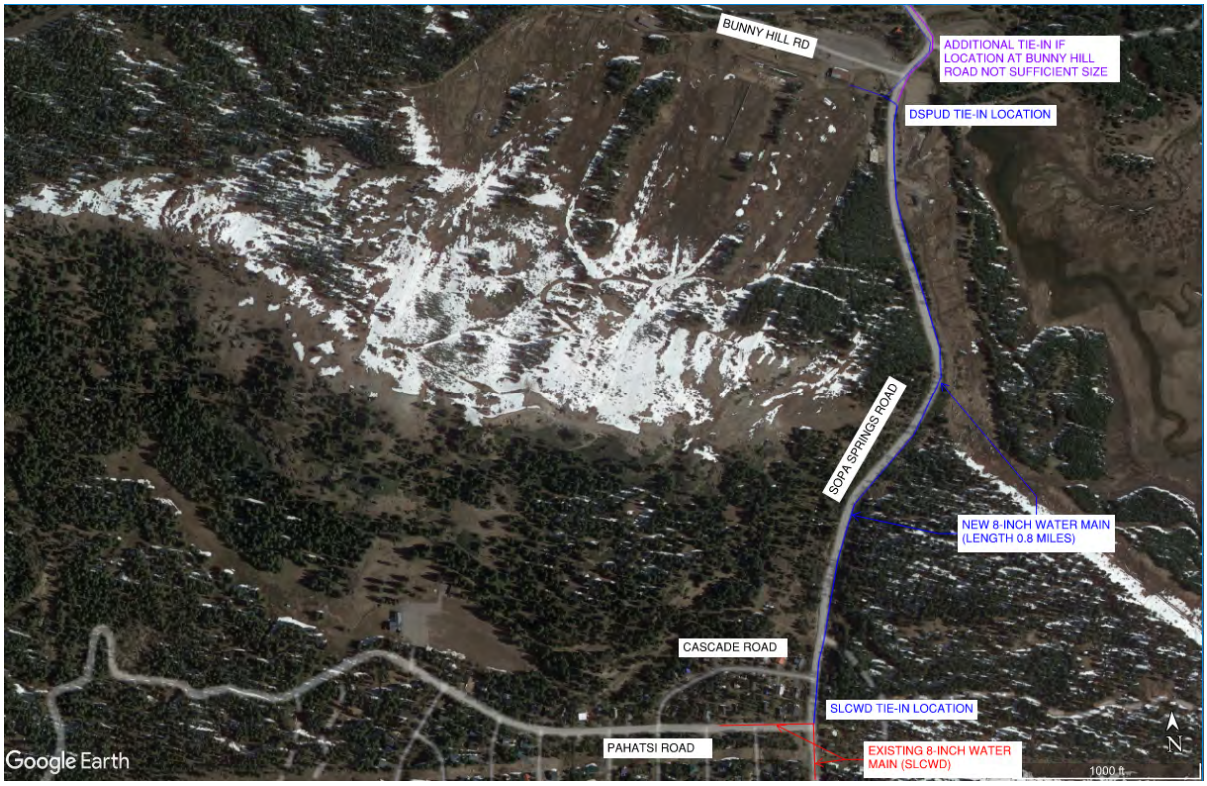


Figure 3: Intertie Location and Alignment

Figure 4: Railroad Crossing and Intertie Location

The total major construction cost for Option 2 is shown in Table 1 below.

Table 1: Option 1 Major Construction Cost Estimate

	Quantity	Unit Cost	Total Cost
Potholing Utility Coordination	Lump Sum	-	$15,000
HDPE Hauling, Purchasing, and Install	4,250 LF	$102.21/LF	$434,000
Blowoff Assemblies	3 EA	$3,000/EA	$9,000
Water System Tie-In Connections	2 EA	$10,000/EA	$20,000
Gate Valves	4 EA	$4,300/EA	$17,000
Fire Hydrant Assembly	2 EA	$16,300/EA	$32,000
Asphalt Replacement	1,420 SY	$21.22/SY	$30,000
Hydrostatic Testing & Disinfection of Pipeline	Lump Sum	-	$30,000
		Total	**$588,000**

Note:
Estimates are rounded to the nearest $1,000 which may result in rounding differences in the total

Mobilization and demobilization costs are added to the total major construction cost to arrive at a total construction cost. Since this is an area considered rural and mountainous, 10% is assumed for mobilization and demobilization, with a total cost assumed cost of $59,000.

Thus, the total construction cost for Option 2 is:

$588,000 + $59,000 = $647,000

Similar to Option 1, 15% of the total construction cost is assumed for design and engineering, with 2% assumed for legal and engineering during construction, and 10% for construction management.

Design and Engineering costs (15%) = $97,000

Legal Costs (2%) = $13,000

Engineering During Construction (2%) = $13,000

Construction Management (10%) = $65,000

The total cost for Option 1 is thus:

$647,000 + $97,000 + $13,000 + $13,000 + $65,000 = $835,000

Environmental Cost Estimate

Any environmental documentation or permitting for work done within the roadway for the pipeline will be handled during the construction and part of the contractor's bid items.

Total Estimated Cost

The total estimated cost for Option 2 is estimated at $835,000.

Option 3: Hauled/Bottled Water

As previously discussed, the District identified hauled water as a potential supply source to be considered as part of this Study. While this option would not serve as a viable option for meeting SB 552 requirements, hauled and/or bottled water could support the District in the event of a catastrophic water shortage or emergency. As part of this TM, the GEI Team has developed an estimated daily cost for hauled/bottled water. The development of this cost is summarized below. There are no anticipated construction or environmental documentation/permitting costs associated with Option 3.

- There are a total of 75 households within the District's service area where said household is their permanent/primary residence; the remaining households include seasonal occupants who would be directed to stay at their permanent residence during a catastrophic water shortage or emergency.

- One household contains 2.92 persons/household (thus, the District should expect to serve approximately a population of 219 during an emergency).

- Each person requires 47 gallons per day to meet human health and safety needs[2], which eqautes to 6,000 ounces per person per day, or 10,293 gallons per day.

[2] Based on Water Code Section 10609.4 for standard indoor residential water use starting in 2025.

- There are two options for water delivery: water hauled in via tanker truck, or bottled water trucked on pallets. This Study assumes delivery would be a mix of both options.

    - **Hauled water:** household needs are better suited using tanker trucked water. This water would be stored in tanks placed physically onsite at the DSPUD office. Assuming two thirds of the required water needed per day would be delivered via water trucks (~32 gallons/person/day, or ~7,000 gallons/day), and that each truck can hold 2,500 gallons, a total of 3 trucks per day would be required. The cost of trucking is dependent on where the water would be shipped from. Assuming DSPUD is able to contract with nearby Truckee to get their trucked-in water, each truck of water is assumed to cost $650, resulting in a total cost of approximately $2,000 per day.

    - **Bottled water:** bottled water would serve the remaining one third of the required water needed per day (~15 gallons/person/day, or ~3,285 gallons/day). Assuming that bottled water would be trucked on pallets, with 18-20 pallets per truck, 72 cases per pallet, 24 bottles of water per case, and 16.9 ounces per bottle, approximately 1 truck of bottled water would be needed per day. With these assumptions, the cost of trucked bottled water is approximately $12,000 per day.

The total estimated daily cost for Option 3, including the cost of hauled water ($2,000 per day) and bottled water ($12,000 per day) is $14,000 per day.

APPENDIX E: EVALUATION OF POTENTIAL SOURCES OF ADDITIONAL SUPPLY TECHNICAL MEMORANDUM

WESTERN HYDROLOGICS
WATER & HYDROPOWER CONSULTING

TECHNICAL MEMORANDUM

TO: Steve Palmer/Jim King, Donner Summit Public Utility District

FROM: Jeff Meyer, Western Hydrologics

DATE: September 14, 2023

RE: ***Task 4: Evaluation of Potential Sources of Additional Supply***

Donner Summit Public Utility District (DSPUD) has contracted with GEI Consultants, Inc., and Western Hydrologics to develop a water supply resiliency study to address DSPUD's present challenges related to water supply reliability. This study includes the development of an operations simulation model to evaluate the risk of drought and climate change impacts, and the identification and evaluation of potential sources of additional supply for DSPUD. The purpose of this Technical Memorandum is to evaluate potential water supply from an intertie with Sierra Lakes County Water District (SLCWD, or District). To perform the evaluation, the operations simulation model was expanded to include SLCWD's Serene Lakes and associated consumptive demands under both the existing conditions for model calibration purposes and anticipated 2040 future conditions to evaluate whether an intertie would improve water supply. The model was used to test the ability of Serene Lakes to meet current and future demands under historic and climate change hydrologic sequences. An Existing scenario was used to verify that the Serene Lakes operations closely matched historic records. Future scenarios were used to evaluate the Serene Lakes operations with and without an intertie to DSPUD's system to determine if additional supplies could be delivered without impacting water supply reliability. These scenarios were tested over a study period containing water years 1976-2021 to include the hydrologic variability which occurs in the basin. The table below provides a summary of the assumptions used for the studies performed for this effort.

Table 1 - Model Scenario Summary Table

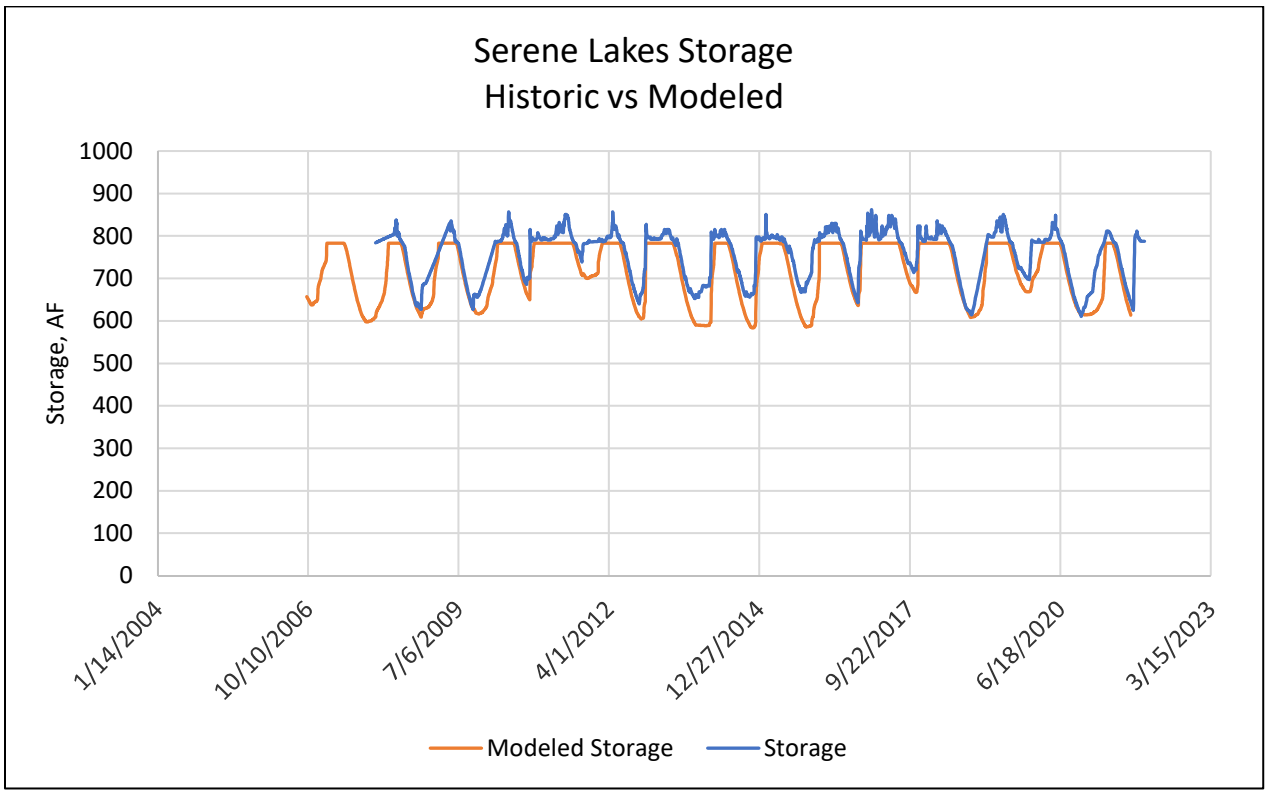
Scenario	Facilities	Hydrology	Study Period	Demand
Existing	Existing	Historic	1976-2021	Historic (2017 – 2021 Avg)
Future	Existing without Intertie	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents. DSPUD Triggers for Enacting Water Shortage Response.
Future	Existing with Intertie	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents. DSPUD Triggers for Enacting Water Shortage Response.

Hydrology

As part of the model development, two hydrology datasets were developed. The first data set is a representation of historic inflow to Serene Lakes using the Kidd Lake inflow data created as part of the inflow dataset for Nevada Irrigation District's Federal Emergency Regulatory Commission relicensing effort of the Yuba-Bear Project, updated for the current Plan for Water effort. This dataset was developed by using the methods described in the *Hydrologic Analysis Technical Memorandum – Final Report* for Nevada Irrigation District dated November 12, 2020. The dataset extends through 2021 and includes an inflow time series to Kidd Lake. Kidd Lake is the adjacent watershed west of Serene Lakes with similar watershed characteristics and watershed areas. According to a U.S. Geological Survey (USGS) watershed analysis product called StreamStats (https://streamstats.usgs.gov/ss/), Kidd Lake and Serene Lakes both have a watershed area of 1.9 sq mi. Kidd Lake has an annual average precipitation of 66.6 inches and an elevation of about 6,806 ft mean sea level (msl). Serene Lakes has an annual average precipitation of 66.7 inches and an elevation of 7,062 feet.

Because the characteristics of Kidd Lake and Serene Lakes are so similar, the Kidd Lake inflow dataset was used as the inflow to Serene Lakes. The simulation model was used to test the Serene Lakes Inflow hydrology dataset by comparing model operations using historic deliveries to the historic storage data. Figure 1 illustrates the simulated storage compared to the historic storage. The red line represents the simulated storage using the Kidd Lake inflow and the average 2017 – 2021 historic consumptive deliveries. During the 2017 – 2021 period, the simulated and historic storage traces match very well. The inflow dataset demonstrates a good fit for the Serene Lakes inflow and was chosen as a suitable dataset for this analysis.

Figure 1 - Simulated Serene Lakes Storage vs Historic Storage



Climate Change Hydrology

Climate change adjusted hydrology was developed using CalSim 3 2040 Central Tendency1 for the USGS Gage at South Yuba River at Cisco Grove. This dataset was developed for the 2021 California Department of Water Resources (DWR) Delivery Capability Report. The 2040 Central Tendency data at Cisco Grove was disaggregated into Daily timestep data and adjusted for the historic Serene Lakes inflow dataset. The study period for this Climate Change dataset is October 1, 1975 – September 30, 2015. Because the CalSim dataset only has data through 2015, years similar to 2016 through 2021 were identified to extend the record through 2021.

[1] Technical Addendum to the State Water Project Final Delivery Capability Report 2021 - https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/CalSim-3/DCR2021

Figure 2 – Climate Change 2040 CT vs Historic

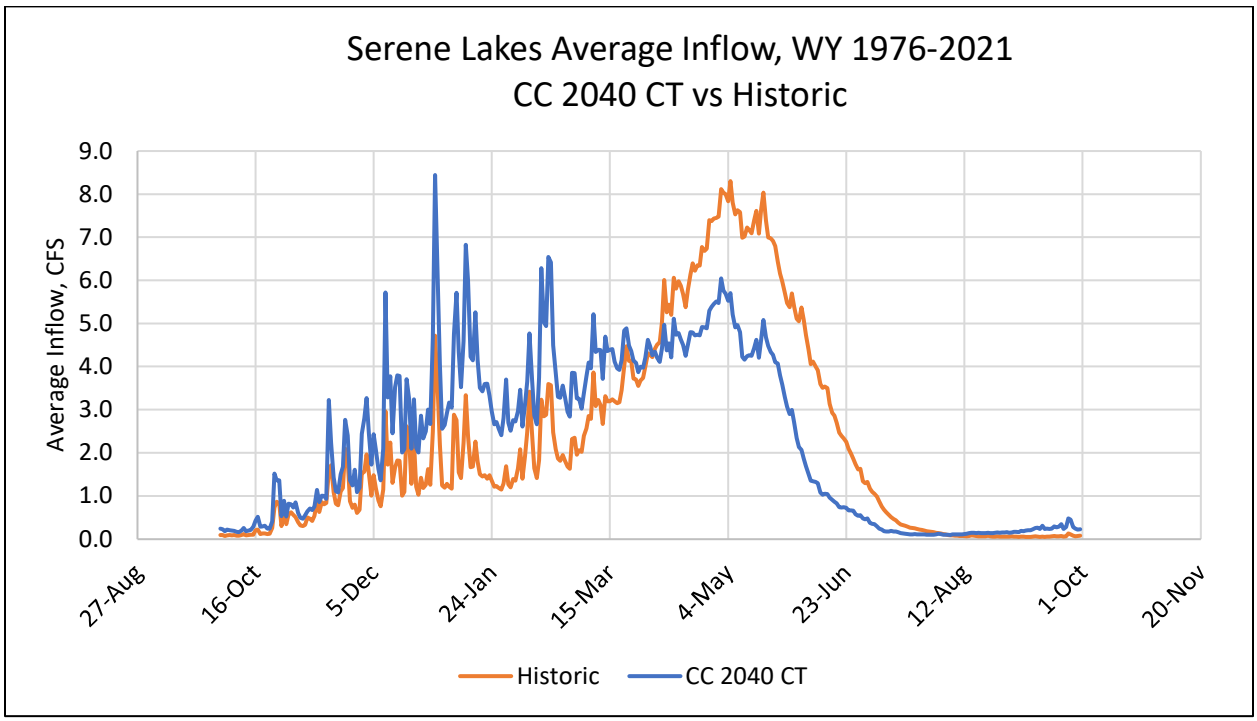


Figure 2 illustrates the Historic unimpaired inflow to Serene Lakes compared to the 2040 level of climate change hydrology. The total volume of the climate change hydrology is 0.15% more than the Historic Hydrology. The most significant change is the shift in runoff pattern. This shift reflects the diminished snowpack expected in the future, resulting in a potential need for changes in operations or a replacement of the snowpack storage.

These inflow datasets contain watershed runoff modeling results for two climate conditions as shown in Table 2.

Table 2 – Climate Conditions

Condition	Description
Historical	Historical representation of Lake Angela inflow from Kidd Lake Inflow
2040 Future Conditions	Future conditions projected climate for a thirty-year period centered on 2040 (2025-2055)

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Evaporation

No evaporation rate data was available specifically for Lake Angela. The DWR Bulletin 73, *"Evaporation from Water Surfaces in California"*, dated November 1979 combined with the Lake Valley Reservoir evaporation pattern from CalSim 3 was used as an estimate of evaporation. There is a fairly strong relationship between elevation and evaporation. Table 3 illustrates the estimated evaporation rates used for Lake Angela. According to Google Earth, Lake Angela is located at about 7,200 ft msl and Serene Lakes is located at about 6,881 ft msl. We estimated the annual evaporation to be about 32.01 inches for the Historic study and 32.98 inches for the 2040 CT climate change study for both lakes. Neither the annual total nor the monthly rates are significantly different between the Historic and 2040 CT climate change datasets.

Table 3 - Evaporation Rates, inches

Month	Historic	2040 CT
Oct	2.53	2.62
Nov	0.94	0.98
Dec	0.49	0.51
Jan	0.37	0.38
Feb	0.74	0.76
Mar	1.33	1.36
Apr	2.47	2.52
May	3.58	3.69
Jun	4.57	4.73
Jul	5.89	6.04
Aug	5.26	5.41
Sep	3.86	3.97
Total	**32.01**	**32.98**

Consumptive Demands

Another stressor on the Serene Lakes water supply are the consumptive demands summarized in the following sections and shown in Table 4.

Existing Demands

The Existing demands were developed by averaging the deliveries provided by SLCWD. Averaging the deliveries for the 2017 – 2021 period on a monthly basis results in the *Existing Consumptive Demand, AF* column in Table 4. Total average demand over that period is 86.4 acre-feet (AF).

Future Demands

The Future demand data set was developed using the historic demand patterns multiplied by the anticipated Future Water use of 365 AF (SLWCD 2011)[2] as authorized by the amended water right permit.

Build out demands are expected to be about 278.6 AF/year (AFY) more than the existing demand. Table 4 summarizes the demands used for both the existing and future conditions.

Table 4 - Existing and Future Consumptive Demands

Month	Existing Consumptive Demand, AF	Build out Consumptive Demand, AF
Jan	7.0	30.5
Feb	6.2	26.8
Mar	6.5	28.0
Apr	6.6	26.7
May	5.7	25.2
Jun	7.3	32.8
Jul	11.3	47.8
Aug	9.3	40.5
Sep	7.1	31.2
Oct	5.2	23.1
Nov	4.8	22.2
Dec	6.2	30.3
Total Potable Water Demand	**83.1**	**365.0**

Drought Contingency Implementation

Sierra Lakes County Water District has developed and implemented two water conservation requirement documents. In May of 2015, SLCWD adopted Resolution 2015-825, implementing Mandatory Water Conservation Measures to help the District manage the effects of a prolonged drought. In February 2018, the District adopted Division XI to the District's code of Ordinances pertaining specifically to Water Conservation. Both documents remain in effect and in addition to the water conservation measures, all SLCWD customers were asked to further reduce their water consumption by an additional 15% as compared to 2020. To implement these requirements in the modeling, a 15% delivery reduction was imposed whenever the April through July runoff forecast fell below 30% of average. This resulted in delivery reductions in

[2] SWALE, Inc (2018), Draft Municipal Service Review North Tahoe and Martis Valley MSR prepared for Placer LAFCo. Pg 11-14 https://www.placer.ca.gov/DocumentCenter/View/7734/Final-Tahoe-Martis-Vallely-Municipal-Service-Review-PDF

1976, 1977, 1988, 1991, and 2015. This approach was used to simulate similar drought delivery reductions as what occurred historically.

As part of this project, Triggers for Enacting Water Shortage Response were developed for the DSPUD system. Table 5 summarizes those triggers and associated actions. These were assumed in the Future level studies. A more complete description can be found in the *Task 5: Triggers for Enacting Water Shortage Response* Technical Memorandum.

Table 5 - Triggers for Enacting Water Shortage Response

Period	Index	Trigger	Delivery reduction
January	Lake Angela Storage **OR** Previous April Bulletin 120 Apr – Jul Runoff Forecast For American River below Folsom Lake	Storage below 50 AF **OR** Greater than 50% of Avg 30% - 50% of Avg Less than 30% of Avg	**Lesser of:** 25% **OR** 0% 15% 25%
February	February 1 Bulletin 120 Apr – Jul Runoff Forecast[3] For American River below Folsom Lake	Greater than 50% of Avg 30% - 50% of Avg Less than 30% of Avg	0% 15% 25%
March	March 1 Bulletin 120 Apr – Jul Runoff Forecast For American River below Folsom Lake	Greater than 50% of Avg 30% - 50% of Avg Less than 30% of Avg	0% 15% 25%
April - December	April 1 Bulletin 120 Apr – Jul Runoff Forecast For American River below Folsom Lake	Greater than 50% of Avg 30% - 50% of Avg Less than 30% of Avg	0% 15% 25%

Model Schematic

The model schematic shown in Figure 3 illustrates the modeled facilities and linkage. The modeled facilities are overlayed on the watershed features to approximate the geographic location of the facilities. The schematic is made up of three node types and two link types, described below.

Nodes

Rector Reservoir Storage

Consumptive demands

Junctions or points of interest

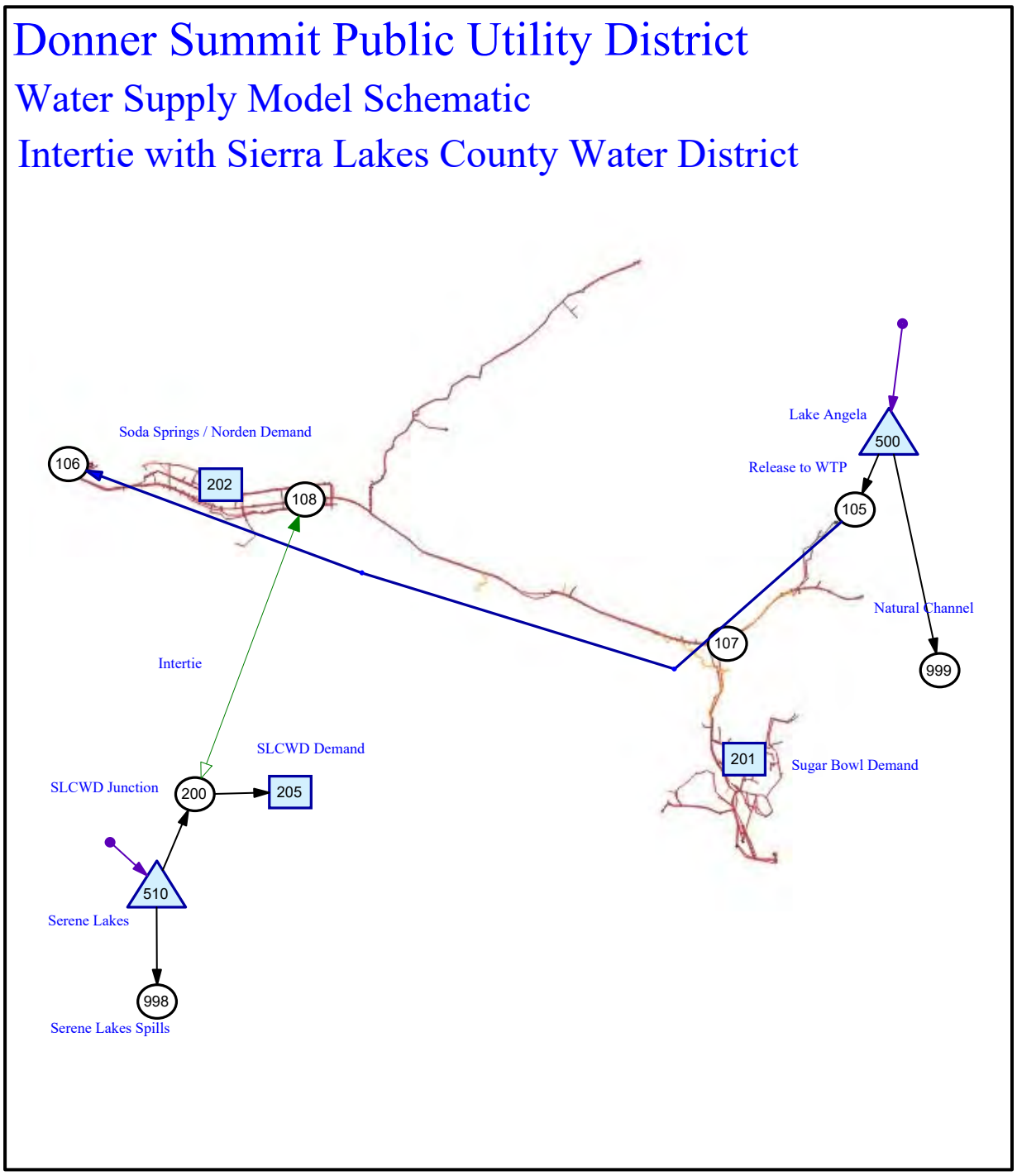
Arcs

Natural channel

Canal or Pipelines

[3] The B-120 Water Supply Forecast Summary April-July Forecast Percent of Average was used to determine when delivery reductions should be applied. The Summaries can be found at the following link: https://cdec.water.ca.gov/reportapp/javareports?name=B120

Figure 3 –DSPUD Intertie with SLCWD Schematic



Results

The results of these studies are discussed in the Existing Conditions and Future Conditions sections.

Existing Conditions

The existing conditions study represents current historic hydrology and existing demands. Table 6 summarizes the assumptions for this study.

Table 6 - Current Level Study

Scenario	Facilities	Hydrology	Study Period	Demand
Existing	Current	Historic	1976-2021	Historic (2017 – 2021 Avg)

As discussed above, this scenario uses a demand that was developed by averaging the actual historic demands for the 2017 – 2021 period. The average demand repeats for every year of the simulation. Figure 4 shows the Annual Delivery and Demand for the period of record. In 1976, 1977, 1978, 1988, 1989, 1991, 2015, and 2016 there are shortages imposed. This was done in a manner that tries to mimic curtailments imposed by the State Water Resources Control Board using the April through July runoff forecasts. The forecasts are made February 1, March 1, and April 1. The April 1 forecast is then used for the April 1 through February 1 period. When the April through July forecast is less than 30% of average, a 15% reduction in delivery is imposed. These reductions in delivery exactly meet the reduction in demand meaning that these are following the curtailment logic and are not because storage has reached dead pool at Serene Lakes.

Figure 4 - Existing Condition Deliveries

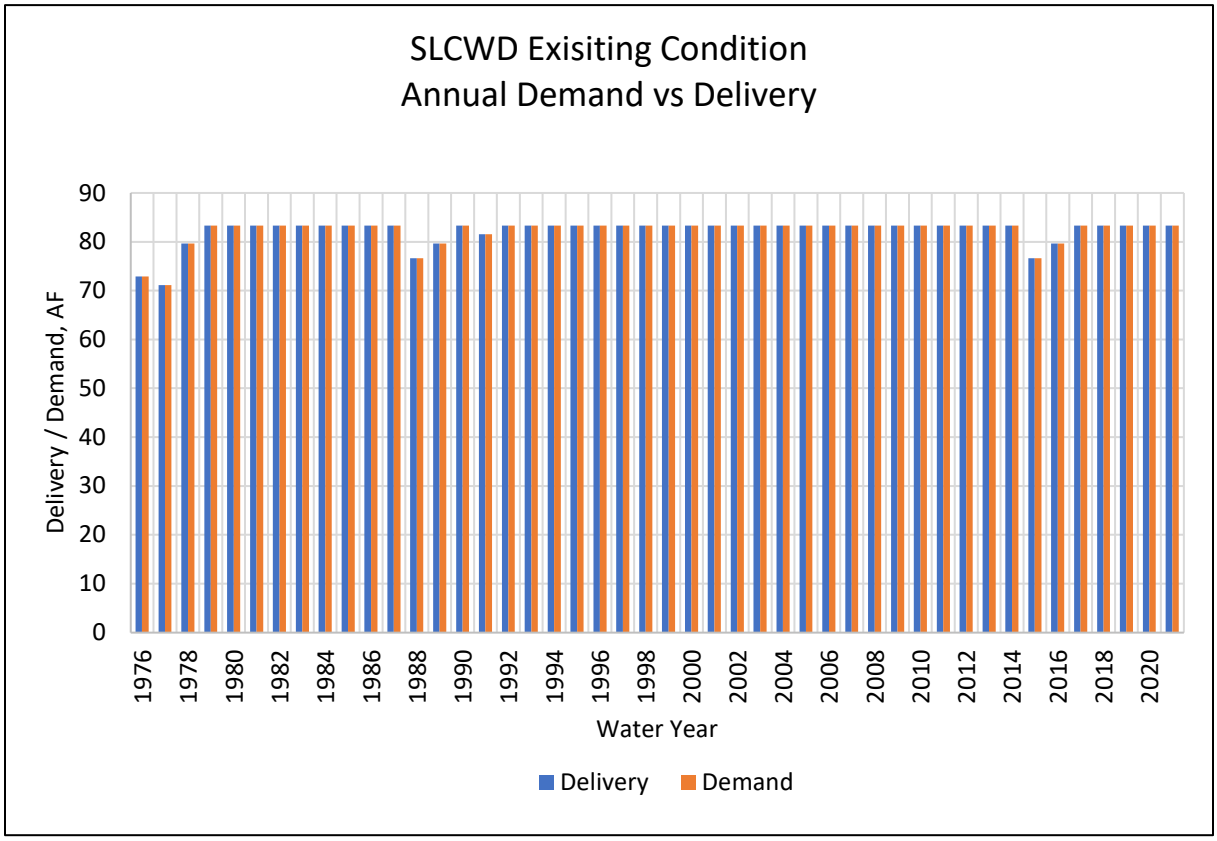
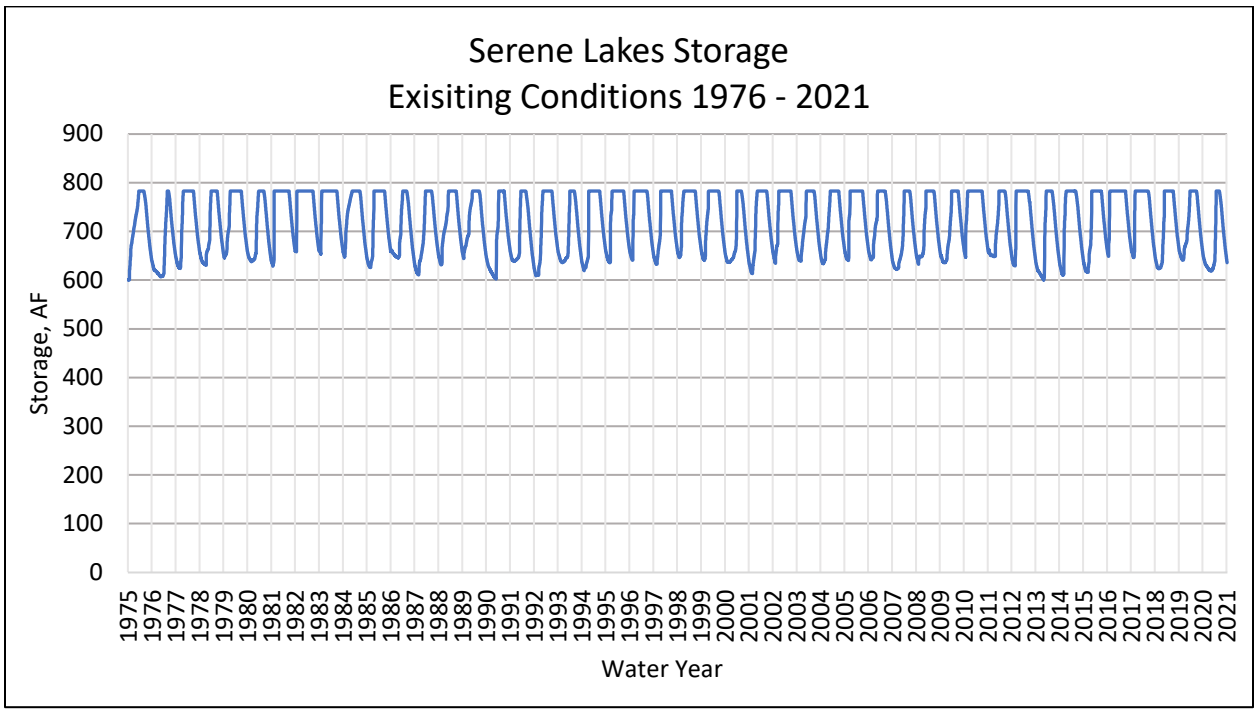


Figure 5 illustrates the resulting storage at Serene Lakes. The minimum storage at Serene Lakes for the study period occurs in the driest years and is roughly 580 AF, leaving approximately 510 AF of additional storage above the dead pool. At Existing Condition, there is plenty of water supply to meet existing demand. Assuming the system is in good working order, study results indicate there is very little risk of water supply shortage due to drought.

Figure 5 - Existing Conditions Serene Lakes Storage



Future Condition without Intertie

The Future Condition without intertie study evaluates the impacts of climate change hydrology coupled with an anticipated future level demand. Table 7 summarizes the assumptions.

Table 7 - Future Level Studies

Scenario	Facilities	Hydrology	Study Period	Demand
Future	Existing without Intertie	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents. DSPUD Triggers for Enacting Water Shortage Response.

The Future condition study includes full build out demands with climate change hydrology. The demands account for growth in the service area and are expected to increase by 211 AFY. Figure 6 illustrates the deliveries made in the Future Condition simulation. This study includes the DSPUD Triggers for Enacting Water Shortage Response. These were developed to prepare a plan for operating through drought conditions by curtailing deliveries. These measures preserve Lake Angela Storage while delivering 75% of the demand. Please see the *Task 5: Triggers for Enacting Water Shortage Response* Technical Memorandum for details. If not for the anticipated State Water Resources Control Board curtailments, Serene Lakes has enough supply to meet SLCWD demands in all years.

Figure 6 – Future Condition Deliveries

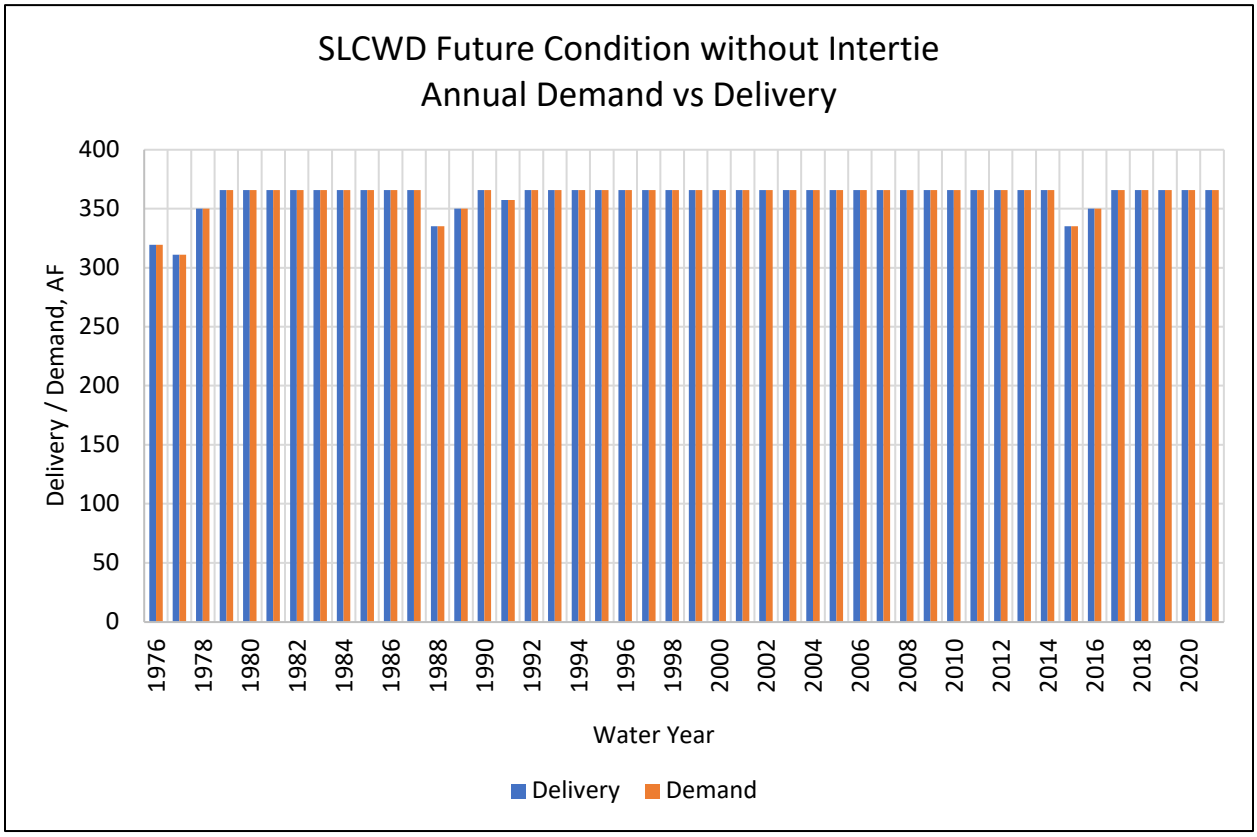


Figure 7 illustrates the resulting Serene Lakes storage at the Future Level. Figure 7 shows that Serene Lakes generally remains above 400 AF in most years and is above 300 AF in all years except 1977. In 1977, Serene Lakes storage fell to 317 AF before the winter precipitation began the refill. Currently, SLCWD can pump water from an elevation of 6,864.5 ft msl or about 9 ft below the dam crest. At this elevation, the remaining storage in the reservoir is about 300 AF.

Figure 7 - Future Condition without Intertie Serene Lakes Storage

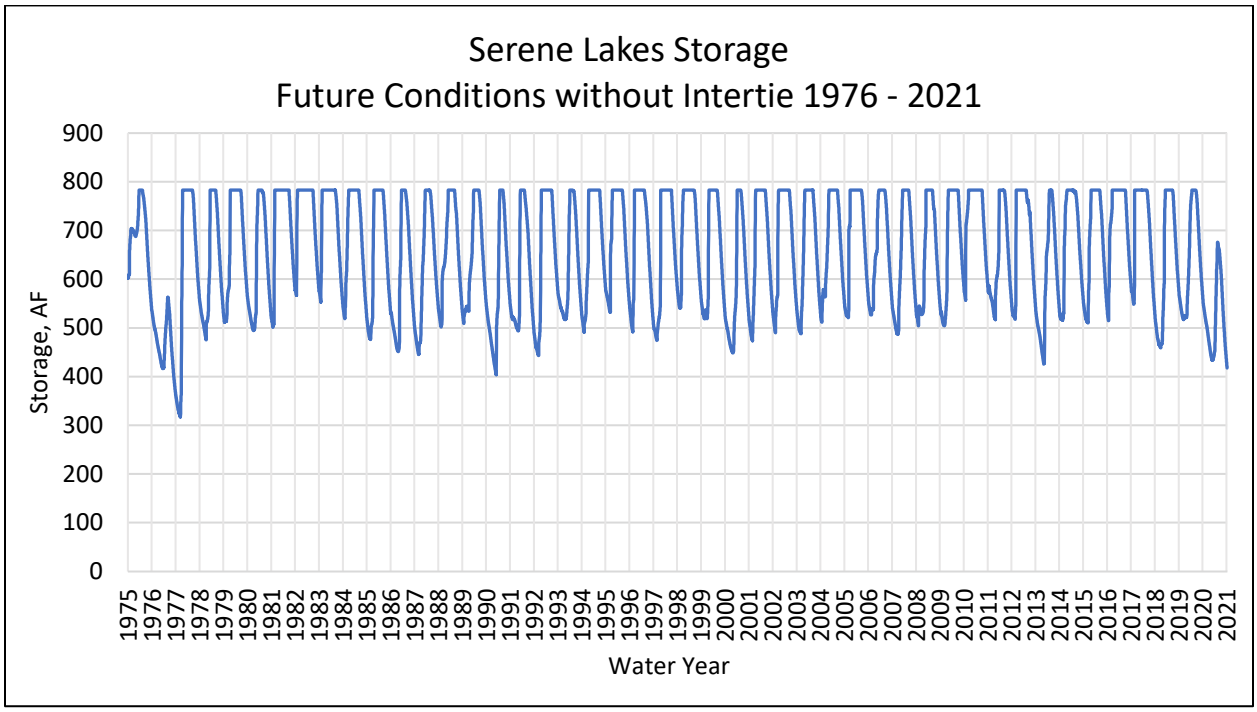
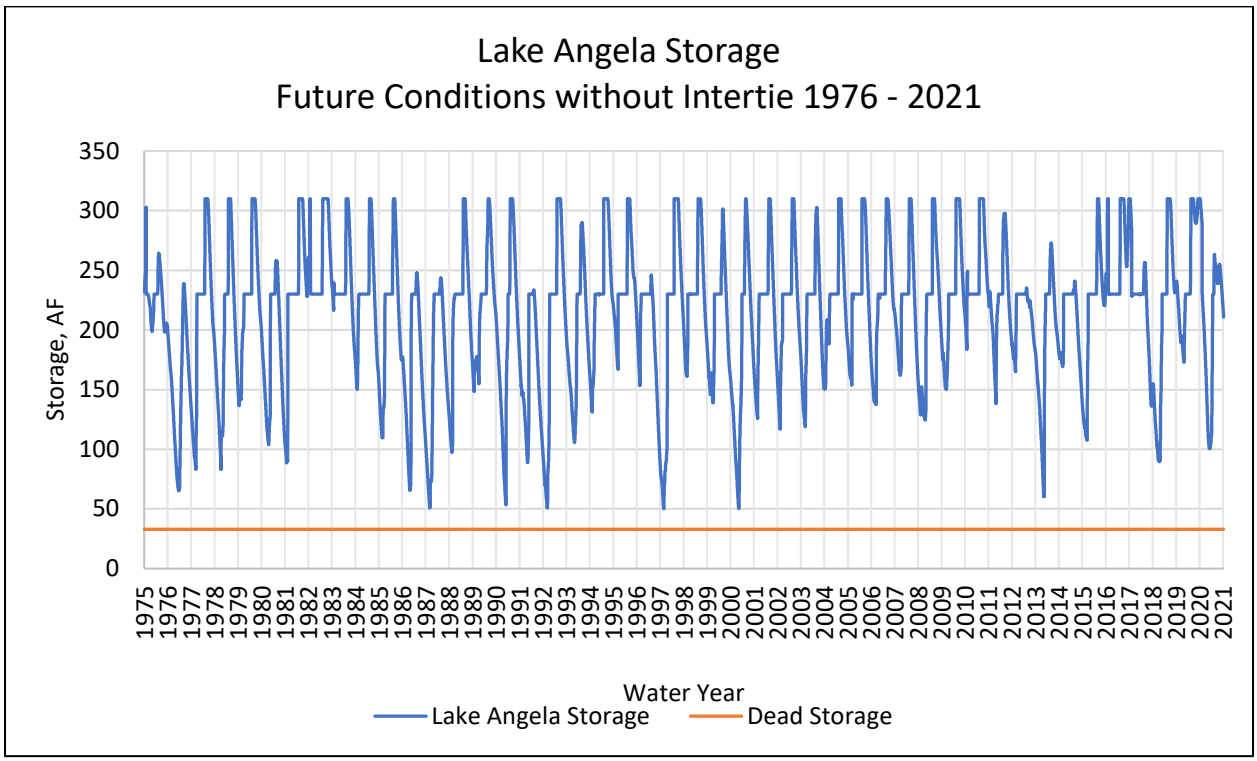


Figure 8 illustrates Lake Angela storage at the future condition. In the driest years, storage approaches dead storage, often being drawn down to about 50 AF.

Figure 8 - Lake Angela Storage without Intertie



Future Conditions with Intertie

This scenario is investigated as DSPUD has been experiencing water quality issues and future level demands could drive storage to near dead pool. This scenario assumes DSPUD buildout demands of 454 AFY and SLCWD buildout demands of 365 AFY.

Table 8 – Future conditions with Intertie

Scenario	Facilities	Hydrology	Study Period	Demand
Future	Existing with Intertie	2040 Climate Change	1976 - 2021 modified by climate change factors	Future based upon planning documents. DSPUD Triggers for Enacting Water Shortage Response.

Figure 9 illustrates that in the Future Condition with Intertie, the same deliveries are made as without the Intertie, demonstrating no water supply impact to the SLCWD customers.

Figure 9 - SLCWD Annual Demand vs Delivery with Intertie

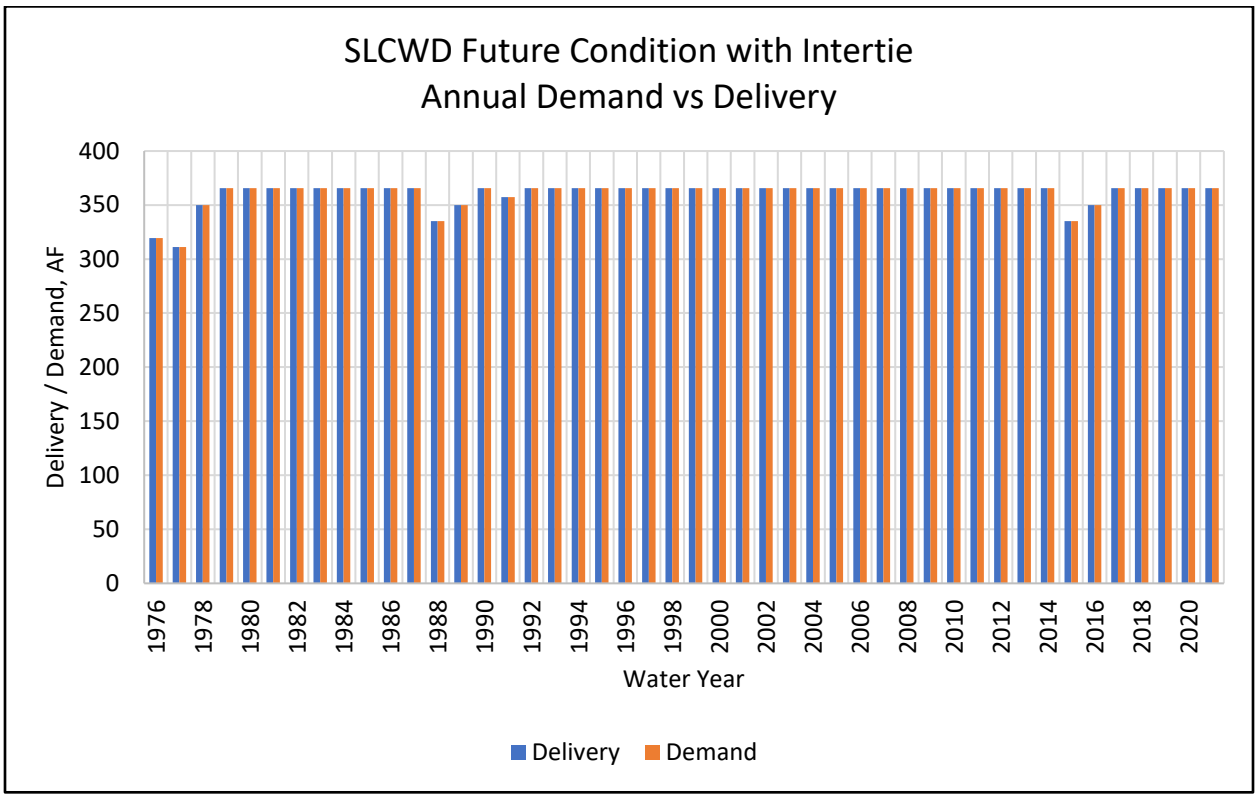
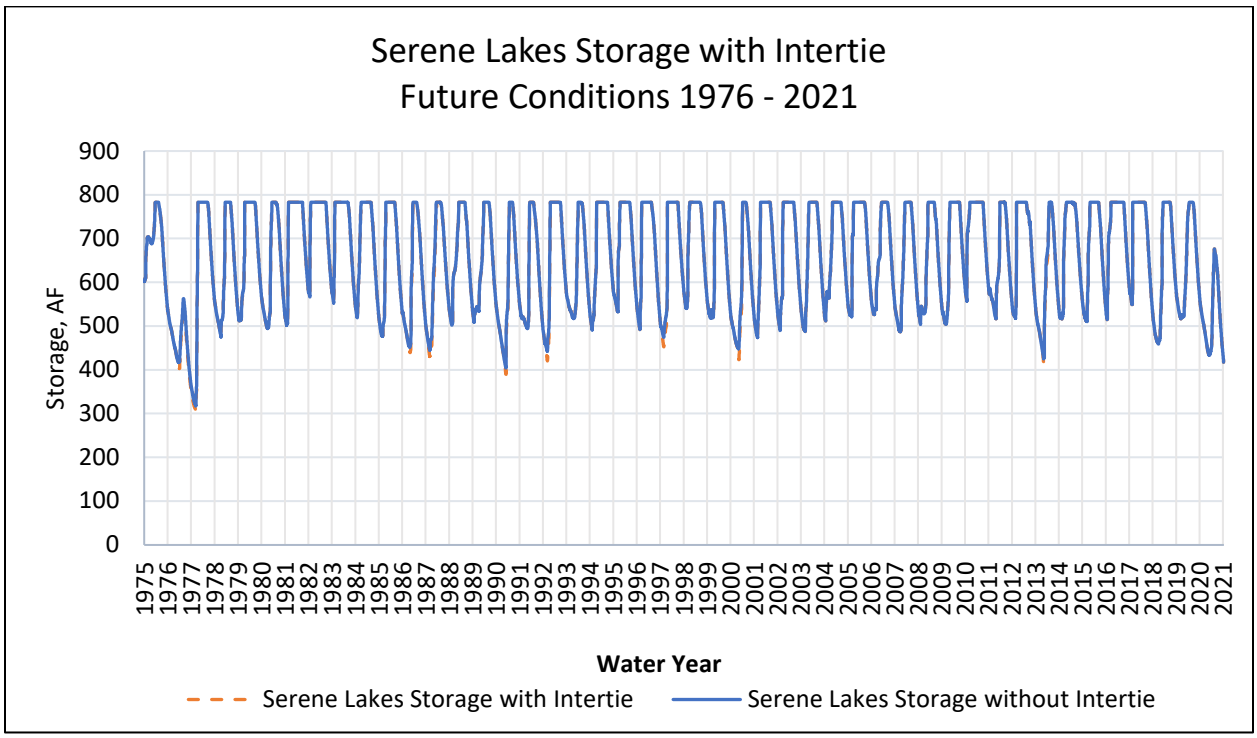


Figure 10 illustrates the storage at Serene Lakes with and without Intertie deliveries. Deliveries are made to DSPUD when Lake Angela Storage falls below 80 AF. The 80 AF threshold value results in a Serene Lakes low point of about 307 AF, allowing SLCWD to continue to pump water using existing facilities to serve their own customers. Deliveries to DSPUD are primarily made from direct diversions rather than storage withdrawals which minimizes impacts to Serene Lakes storage. The intake pipe could be extended deeper into the reservoir to allow for more operational flexibility.

Figure 10 - Serene Lakes Storage with Intertie Delivery to DSPUD



Using an Intertie can improve the dry year low point Lake Angela storage from about 50 AF to 70 AF, as shown in Figure 11, without significantly impacting SLCWD's water supply.

Figure 11 - Lake Angela Storage with Intertie Delivery

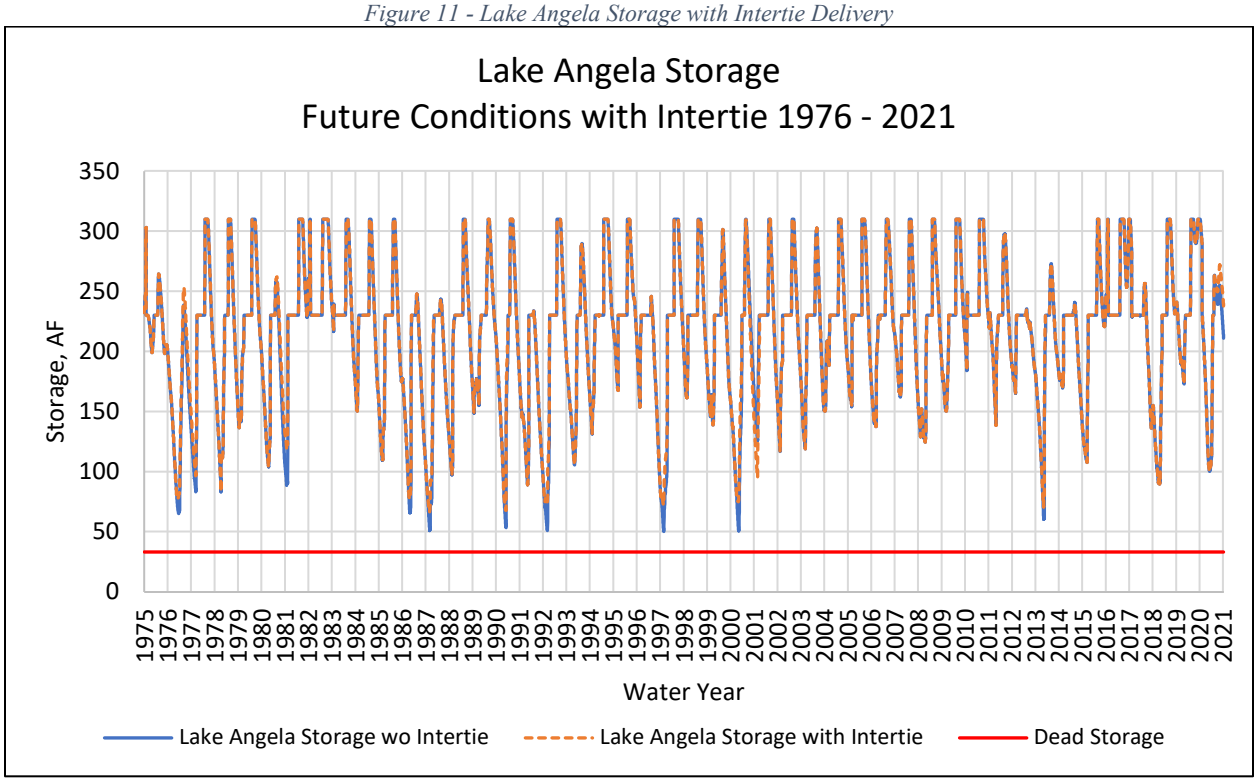
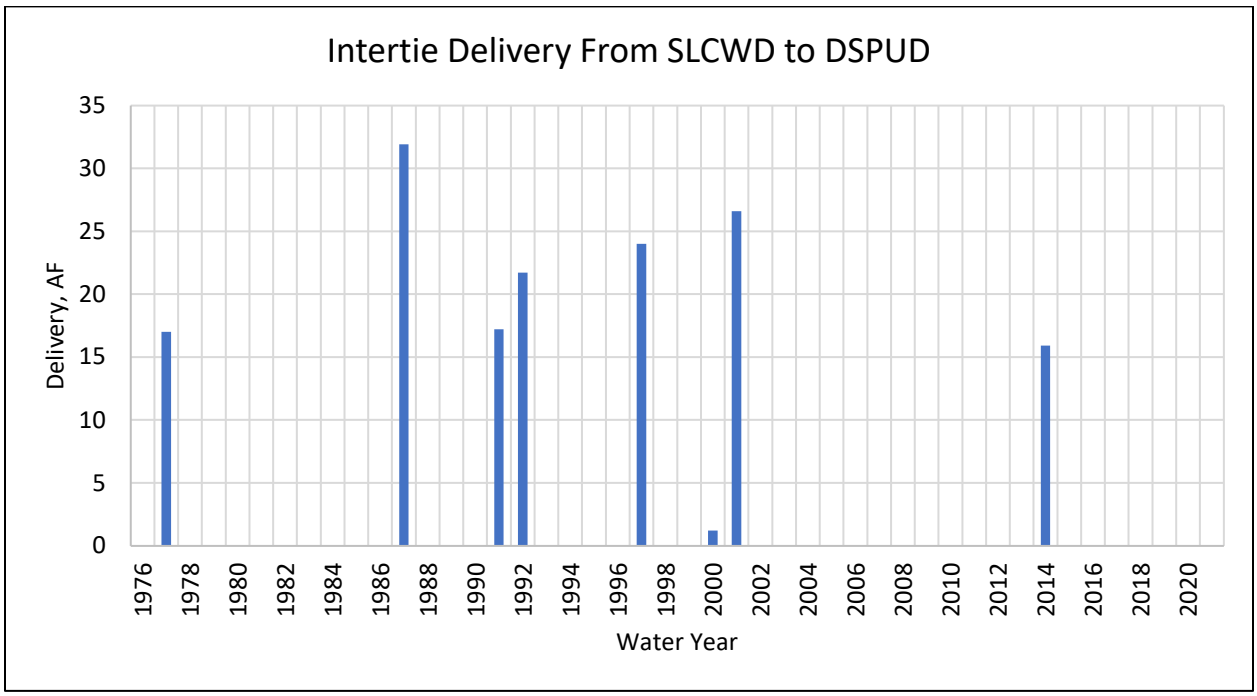


Figure 12 illustrates the annual volumes of water delivered by the Intertie in dry years. The annual delivery ranges from about 2 AF to as much as 32 AF. Deliveries from the intertie are made if Lake Angela storage falls below 80 AF to keep Lake Angela storage from falling to dead storage while preserving water supply at Serene Lakes. The Intertie deliveries from Serene Lakes mostly occur from direct diversions and not storage withdrawals. This operation is advantageous because the intertie delivery has a very minor effect on Serene Lakes storage but provides a benefit to Lake Angela storage as shown in Figure 11.

Figure 12 - Intertie Delivery from SLCWD to DSPUD



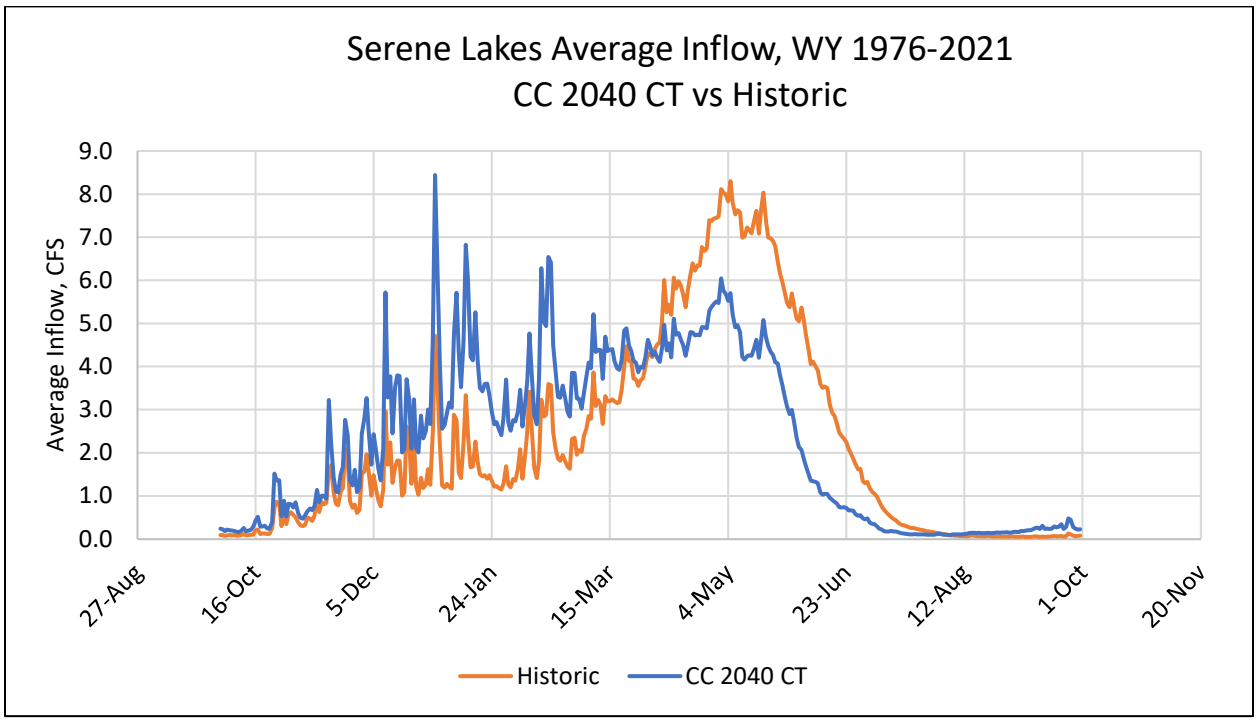
Conclusions

Based on the results of these studies, it appears under the future climate condition, both Lake Angela and Serene Lakes can meet the anticipated future demand as long as the dry year reductions in deliveries are implemented in water short years.

The shift in the runoff pattern of climate change hydrology is significant. Figure 13 illustrates the impact of climate change hydrology. The orange line shows the historic average annual runoff pattern. The blue lines show the climate change average annual runoff pattern. Figure 13 illustrates how the climate change hydrology peak runoff pattern shifts earlier in the year to the December through March period as compared to the historic April through June period. Although both average annual runoff volumes are almost identical, use of climate shifted supply can be accomplished.

Results indicate that with the addition of an Intertie, early spring runoff during drier years can be diverted to Lake Angela without significantly impacting Serene Lakes storage. This operation improves overall water supply and could result in a modification to the Triggers for Enacting a Water Shortage Response, allowing for increased deliveries by DSPUD.

Figure 13 – Seren Lakes Climate Change 2040 CT Inflow



For water supply purposes, both DSPUD and SLCWD would only need an Intertie when consumptive demands approach the buildout levels. An Intertie could also be useful for emergency water supply needs. The two Districts could temporarily support each other during equipment failures or water quality emergencies. Emergency actions are beyond the scope of this analysis but should be studied if an Intertie is considered.

Recommendations

The studies performed for this task have illustrated that for water supply purposes, an Intertie between DSPUD and SLCWD could be beneficial. Until consumptive demands reach buildout levels, the additional supply is not necessarily needed. However, in an emergency both Districts could benefit from an Intertie.

Demands in the Future Condition scenario have a combined increase of 493 AFY. In water short year,s delivery reduction policy could be developed to impose deficiencies in those years where storage withdrawals begin to approach dead pool. With the Triggers for Enacting Water Shortage Response for DSPUD and the Drought Contingency Implementation for SLCWD, both projects could manage their respective water supplies through anticipated droughts. Study results indicate that with an Intertie, the total delivery capability could be increased.

Climate Change projections indicate future runoff patterns will result in peak runoff in the January thru February period. Because of the shifting runoff patterns and the current Lake Angela DSOD requirements coupled with anticipated demands, maximizing storage at Lake Angela and Serene Lakes in the future may become critical once consumptive demands reach

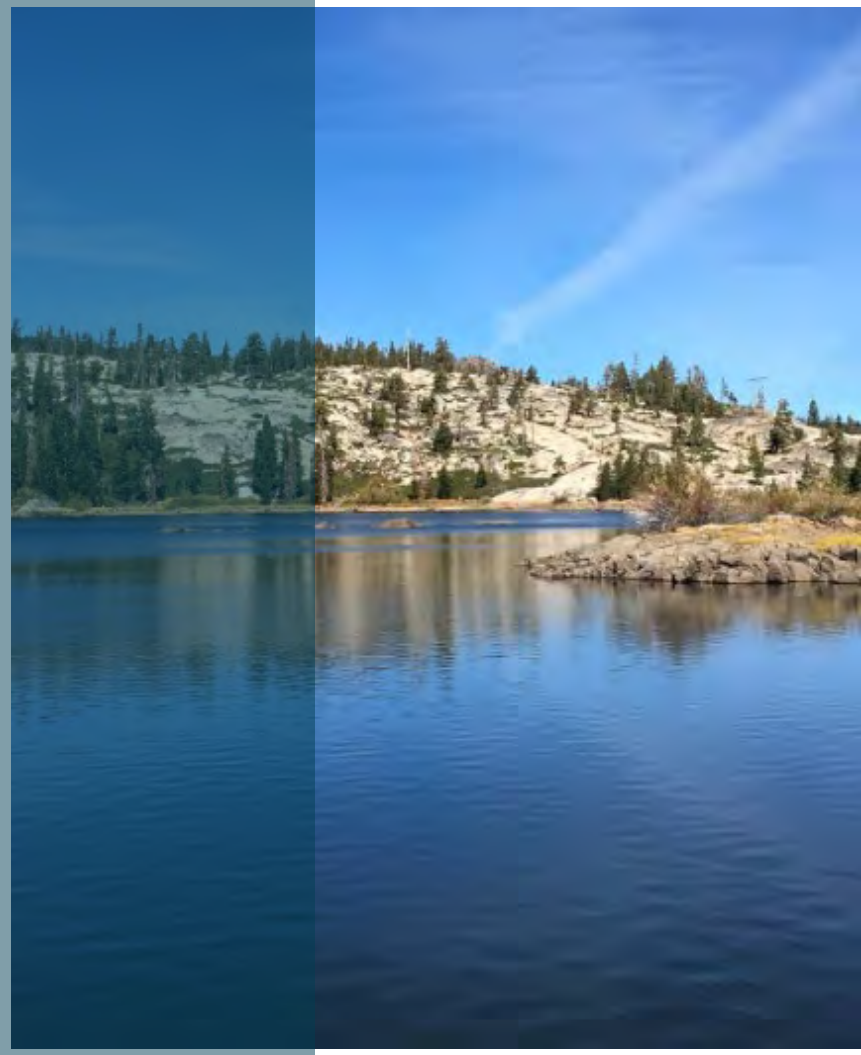
build out levels. A cost benefit analysis for the construction of the Intertie should be considered. The analysis should not only consider the increase in water supply, but also the value of an emergency water supply at any point in the future.

Finally, construction and use of an Intertie would require changes to both District's water rights to include the other's service area in their place of use. This is a relatively simple procedure and can be accomplished by filing a petition for change in place of use and the necessary environmental documentation with the State Water Resources Control Board.

APPENDIX F: DONNER SUMMIT PUBLIC UTILITY DISTRICT ABRIDGED WATER SHORTAGE CONTINGENCY PLAN

Water Supply Resiliency Study

Donner Summit Public Utility District



March 19, 2024

GEI Consultants

Agenda

- Purpose
- Drought Risk Evaluation
- Water Quality Risk Evaluation
- Identification of Potential Water Supply Solutions
- Evaluation of Water Supply Solutions
- Next Steps

Purpose

Algal Blooms + Water Quality

Drought + Future Climate

Challenges

Senate Bill 552

Purpose

Algal Blooms + Water Quality

Drought + Future Climate

Senate Bill 552

Challenges

PROJECT GOALS:

- Evaluate DSPUD vulnerability to risks from water quality, climate change, and drought
- Identify potential sources of water to address these impacts and the requirements of SB 552

Drought Risk Evaluation

Operations Simulation Model

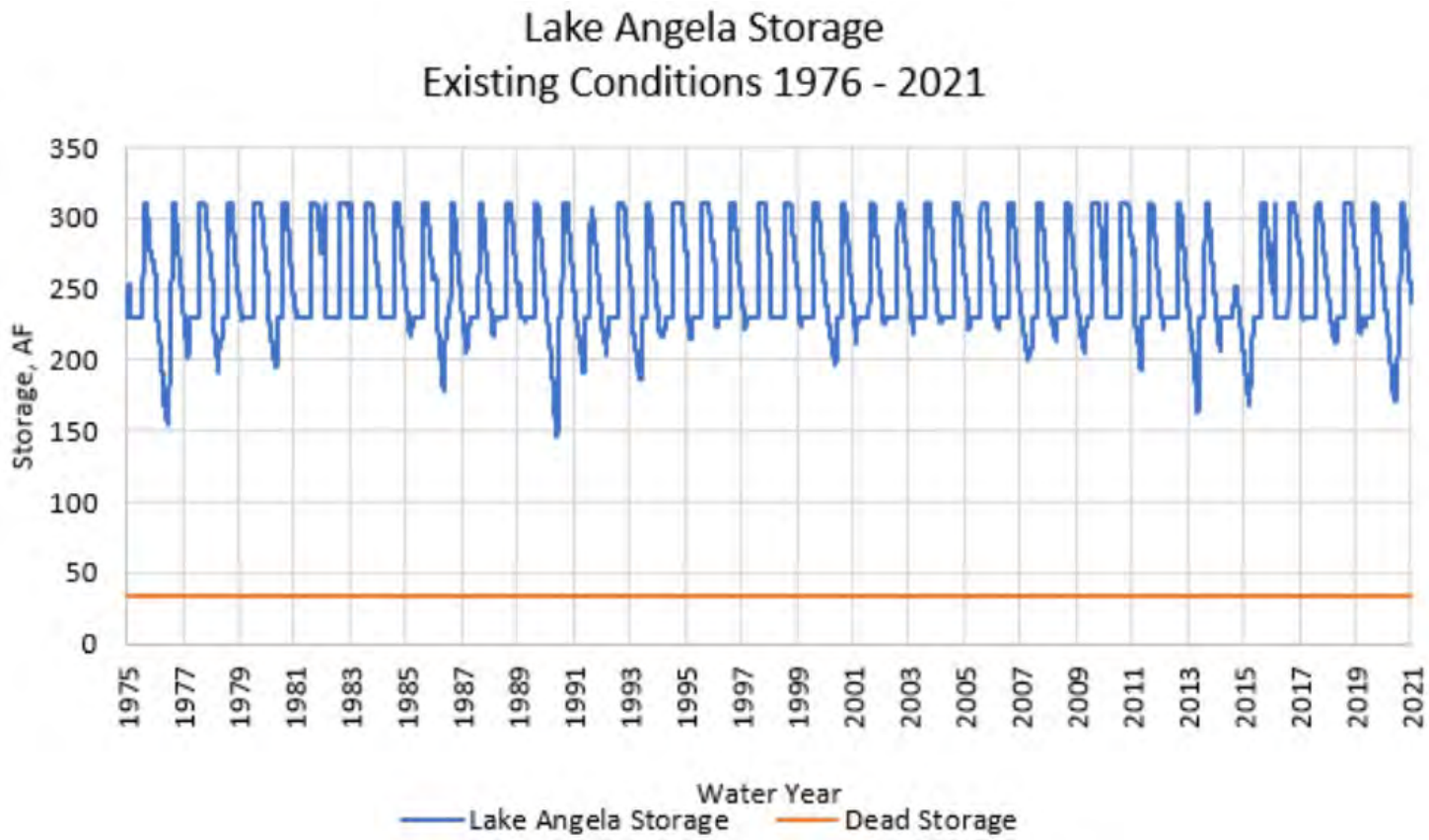
Drought Risk Evaluation Scenarios

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
DR-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
DR-2	Future Conditions	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents

Climate Conditions

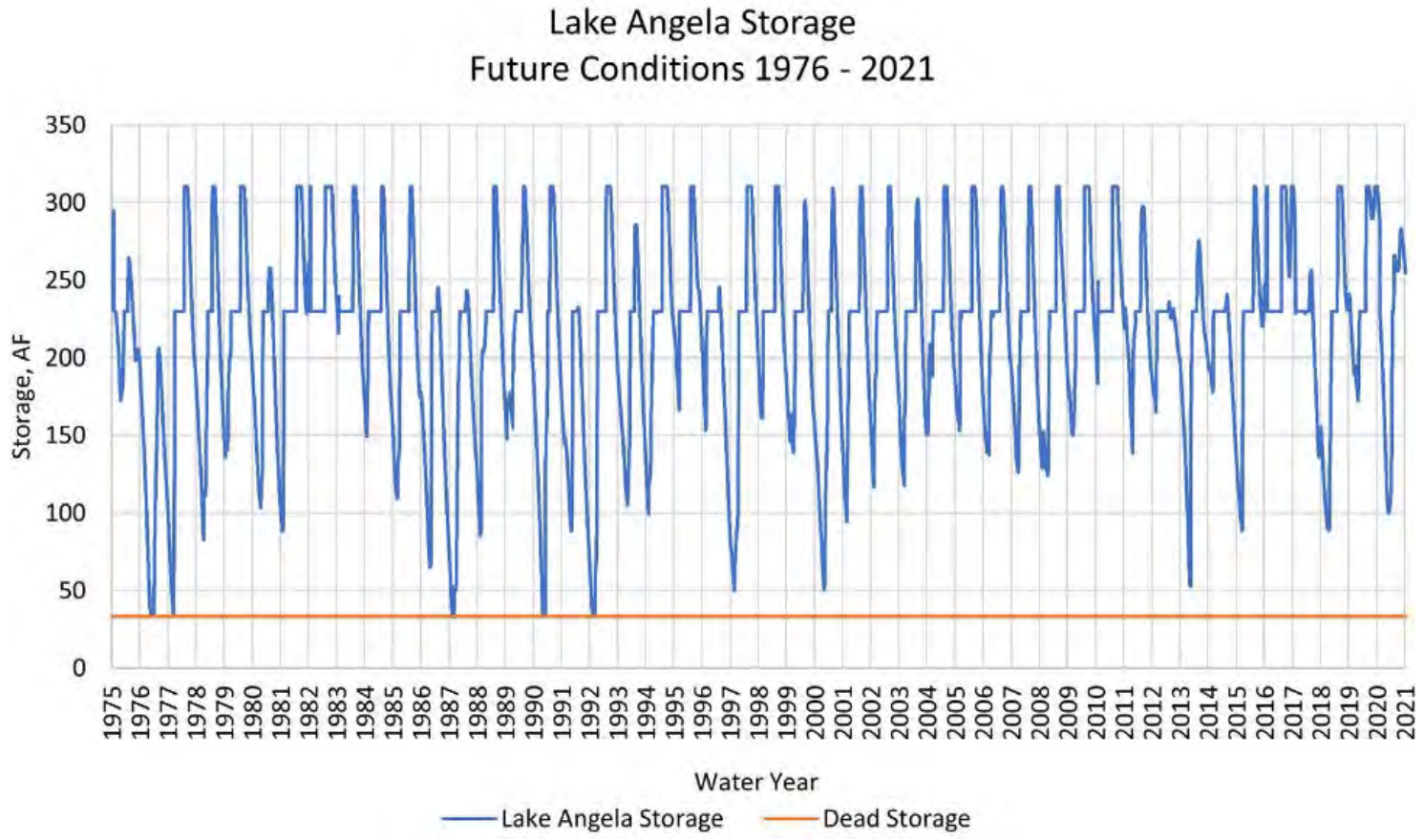
Condition	Description
Historical	Historical representation of Lake Angela inflow from Kidd Lake Inflow
2040 Future Conditions	Future conditions projected climate for a thirty-year period centered on 2040 (2025-2055)

Drought Risk Evaluation



Scenario DR-1 – Exisiting Conditions

Drought Risk Evaluation



Scenario DR-2 – Future Conditions

Drought Risk Evaluation

Conclusions & Recommendations:

- Under existing conditions, *minimal risk of water supply shortage* based on historical hydrology and current demand
  - Current operating criteria may not ensure reservoir filling at future demand levels
- Additional steps will be needed to meet demand under future conditions:
  - Development of a water shortage contingency plan
  - Consideration of revision to DSOD storage requirements

Water Quality Risk Evaluation

Mechanism	Risk
1 Atmospheric Deposition	1 Promotes algae growth and biomass
2 Ash Deposition	2 Promotes algae growth and biomass
3 Climate Warming	3 Reduce water availability during consecutive dry-years, increase surface water temperature
4 Bathymetry of Lake Angela	4 Reduced capacity for mixing during low lake levels
5 Basin Morphology and Water Withdrawal	5 Increase potential for internal nutrient loading
6 Deep Water Withdrawal from the Southern Basin	6 Warmer epilimnetic water is more suitable for nuisance algae growth
7 Increasing Trends in Nutrient Availability	7 Increase the potential for taste and odor issues, affect the treatability of raw water

Water Quality Risk Evaluation

Recommendations:

- **Monitoring at Lake Angela**
  - Measure inflow, outflow
  - Water quality sampling
- Water Quality Assessment Study
- Control Strategies to Manage Risk

Water Quality Risk Evaluation

Recommendations:

- Monitoring at Lake Angela
- **Water Quality Assessment Study**
  - Evaluation using monitoring data
- Control Strategies to Manage Risk

Water Quality Risk Evaluation

Recommendations:

- Monitoring at Lake Angela
- Water Quality Assessment Study
- **Control Strategies to Manage Risk**
  - **In Lake Controls (algaecides, ultrasonic soundwaves)**
  - **Operational Controls**

Long Term

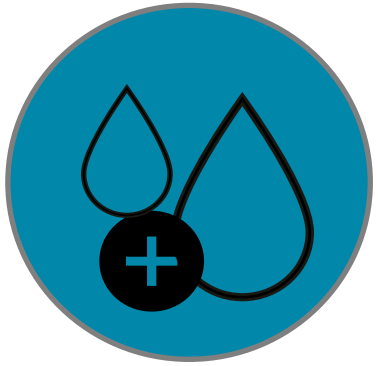
Short Term

Potential Water Supply Solutions

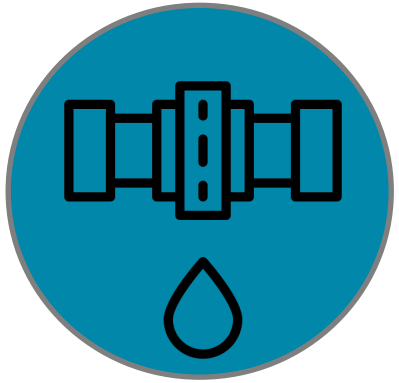
Groundwater

Alternative Surface Water Supplies

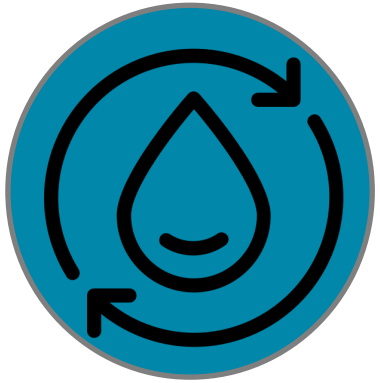
- Lake Angela Expansion
- Development of Nearby Natural Lakes



Intertie with Sierra Lakes County Water District



Recycled Water



Water Shortage Contingency Plan

Hauled/Bottled Water

Evaluation of Water Supply Solutions

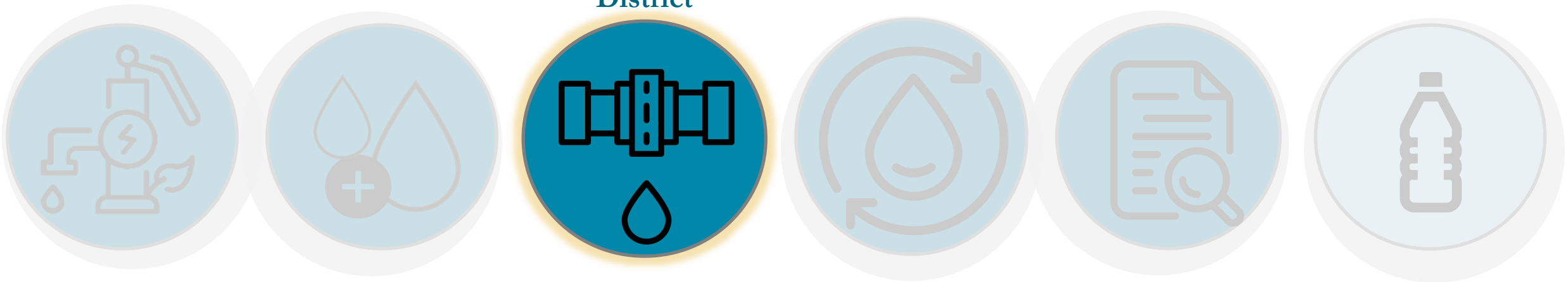
Long Term

Short Term

Groundwater

Intertie with Sierra Lakes County Water District

Water Shortage Contingency Plan



Alternative Surface Water Supplies

- Lake Angela Expansion
- Development of Nearby Natural Lakes

Recycled Water

Hauled/Bottled Water

Evaluation of Water Supply Solutions

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
IT-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
IT-2	Future Conditions without Intertie	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]
IT-3	Future Conditions with Intertie	Existing with Intertie	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]

Evaluation of Water Supply Solutions

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
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IT-3	Future Conditions with Intertie	Existing with Intertie	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]

Minimal risk to Serene Lakes

Evaluation of Water Supply Solutions

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
IT-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
IT-2	Future Conditions without Intertie	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]
IT-3	Future Conditions with Intertie	Existing with Intertie	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]

Minimal risk to Serene Lakes

Nears dead pool (~50 AF) during dry years

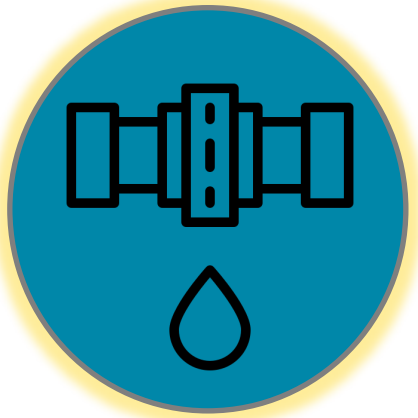
Evaluation of Water Supply Solutions

Scenario No.	Scenario	Facilities	Hydrology	Study Period	Demand
IT-1	Existing Conditions	Existing	Historic	1976-2021	Historic (2017 – 2021 average)
IT-2	Future Conditions without Intertie	Existing	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]
IT-3	Future Conditions with Intertie	Existing with Intertie	2040 Climate Change	1976-2021 modified by climate change factors	Future based upon planning documents[1]

Intertie can improve the dry year low point of Lake Angela from ~50 AF to ~70 AF without significantly impacting SLCWD's water supply

Evaluation of Water Supply Solutions

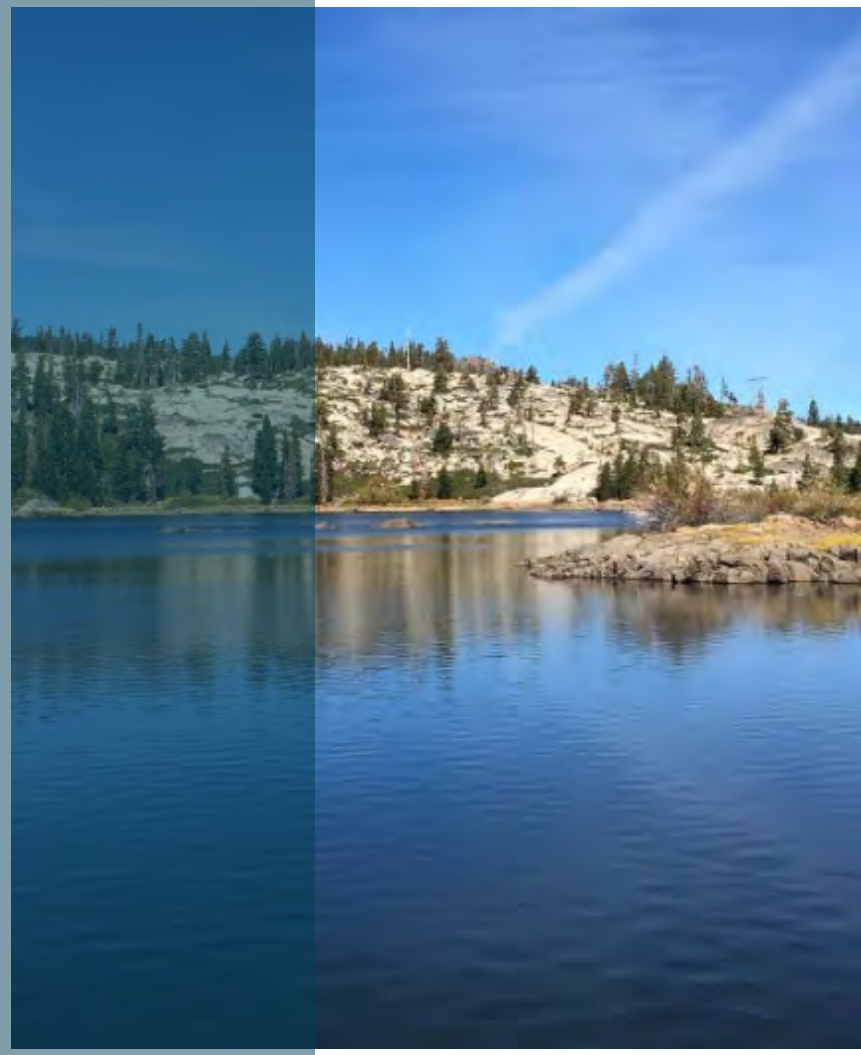
Intertie with Sierra Lakes County Water District



Estimated Cost: $835,000

Next Steps

- Feasibility study and/or economic analysis for intertie with SLCWD
- Steps towards revising the DSOD storage requirements
  - Monthly design storm study
- Monitoring to implement the District's Water Shortage Contingency Plan



Questions

GEI Consultants

Agenda Item: 8C

DONNER SUMMIT PUBLIC UTILITY DISTRICT

STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, General Manager

SUBJECT: Cast Ballot for Placer County LAFCO Special District Representatives

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RECOMMENDATION

Board discussion and voting for Special District Representatives to the Placer County Local Agency Formation Commission (LAFCO).

BACKGROUND

Placer County LAFCO is requesting that the member agencies cast a vote for the Regular Voting Special District Representative and a vote for the Alterative Special District Representative. LAFCO received six nominations for the Special District Representative Seat and. The District received the attached LAFCO ballot package requesting that the District cast a ballot before 4 pm on Friday, April 26, 2024.

DISCUSSION

The attached ballot package from LAFCO includes a Statement of Qualifications from each of the following nominees:

1. H. Gordon Ainsleigh, Auburn Area Recreation and Park District Director
2. Joshua Alpine, Placer County Water Agency Director
3. Peter Gilbert, Placer Mosquito & Vector Control District Trustee
4. Richard Hercules, Foresthill Fire Protection District President
5. William Kahrl, Newcastle Fire Protection President
6. Luke Ragan, North Tahoe Fire Protection District Vice President

The District Board is asked to take two actions:

- Vote for one nominee for the regular voting positions, and
- Vote for first and second choice for the alternate position.

The elected individuals will serve from May 2024 to May 2028.

FISCAL IMPACT

There is no fiscal impact

CEQA ASSESSMENT

This is not a CEQA Project

ATTACHMENTS

1. LAFCO Ballot Package

PLACER COUNTY

LOCAL AGENCY FORMATION COMMISSION

Electronic Transmittal

Date: February 27, 2024
To: Special District Presiding Officer c/o Clerk of the District
From: Michelle McIntyre
Re: Selection of a Special District Representative and Alternate

On January 17, 2024, LAFCO requested the Special Districts Presiding Officers consider nominating one or two special district board member(s) to serve as the Special District and Alternate Special District Representative on LAFCO.

We received several nominations for both seats within the deadline. Some nominees were nominated as the voting and alternate voting members. As a result, we ask you to complete the ballots in the following manner:

Regular Voting Special District Representative Ballot

- Choose one candidate only.

Alternate Special District Representative Ballot

- Choose your *first-choice* candidate by writing the number 1 next to their name.
- Choose your *second-choice* candidate by writing the number 2 next to their name.

We will count the ballots for the Special District Representative before tallying the votes for the alternate voting member seat. We will only use your second-choice candidate for the Alternate Representative if your first choice was selected as the regular voting member.

To be considered valid, ballots must be signed by the presiding officer of a special district, or another board member designated by the board. Ballots from a quorum of the Special Districts must be received for the election to be valid, and the person receiving the most votes for each seat shall be appointed. This memo contains ballots and any submitted Statement of Qualifications from the candidates.

Please return completed ballots via email to lafco@placer.ca.gov no later than **Friday, April 26, 2024, at 4 pm.**

110 Maple Street Auburn, CA 95603
(530) 889-4097
https://www.placer.ca.gov/lafco

Ballot: Selection of Regular Voting Special District Representative on LAFCO

Please choose one candidate:

_____ **H. Gordon Ainsleigh, Auburn Area Recreation and Park District Director**
Nominated by:
Auburn Area Recreation and Park District

_____ **Joshua Alpine, Placer County Water Agency Director**
Nominated by:
North Tahoe Public Utility District
Placer County Water Agency
Tahoe City Public Utility District

_____ **Peter Gilbert, Placer Mosquito & Vector Control District Trustee**
Nominated by:
Placer Mosquito & Vector Control District

_____ **Richard Hercules, Foresthill Fire Protection District President**
Nominated by:
Foresthill Fire Protection District

_____ **William Kahrl, Newcastle Fire Protection District President**
Nominated by:
Newcastle Fire Protection District
Penryn Fire Protection District
Placer Hills Fire Protection District

_____ **Luke Ragan, North Tahoe Fire Protection District Vice President**
Nominated by:
North Tahoe Fire Protection District

_____ **Teresa Ryland, South Placer Fire Protection District Director**
Nominated by:
South Placer Fire Protection District

Name of Special District: _____

_____ _____
Presiding Officer Printed Name Presiding Officer Signature

Must be received by LAFCO via email at LAFCO@placer.ca.gov no later than Friday, April 26, 2024 by 4pm.

Ballot: Selection of Alternate Special District Representative on LAFCO

Please choose two candidates, numbering your first choice 1 and second choice 2.
Your second choice will be counted in the event your first choice is voted in as the LAFCO Special District Regular Voting Member.

_____**H. Gordon Ainsleigh, Auburn Area Recreation and Park District Director**
Nominated by:
Auburn Area Recreation and Park District

_____**Joshua Alpine, Placer County Water Agency Director**
Nominated by:
Placer Hills Fire Protection District

_____**Judy Friedman, Tahoe City Public Utility District Director**
Nominated by:
Alpine Springs Community Water District
North Tahoe Public Utility District
Placer County Water Agency
Tahoe City Public Utility District

_____**William Kahrl, Newcastle Fire Protection District President**
Nominated by:
Penryn Fire Protection District

_____**Luke Ragan, North Tahoe Fire Protection District Vice President**
Nominated by:
North Tahoe Fire Protection District

_____**Teresa Ryland, South Placer Fire Protection District Director**
Nominated by:
Newcastle Fire Protection District
South Placer Fire Protection District

Name of Special District: _____

_____ _____
Presiding Officer Printed Name Presiding Officer Signature

Must be received by LAFCO via email at LAFCO@placer.ca.gov no later than Friday, April 26, 2024 by 4pm.

I am Gordon Ainsleigh, 20-year Board Member of Auburn Recreation District. It has been my fortune, debatably good or bad, to have been president of two boards of directors at a time of crisis.

One was with Midway Heights County Water District in the late 1980s, when the EPA chose us as the first-in-the-nation community water district to attack, and force into chlorination. So in spite of the fact that the head of the National Cancer Institute had recently bragged about the new science showing that chlorinated water caused bowel and bladder cancer, and in spite of our Board's stance that we wanted to pursue ozonization for clean water, the Court went with the statement of the California State Health Officer that chlorinated water did not cause cancer, and we were forced to comply, trading the present giardia risk for a future bowel and bladder cancer risk. Our two small victories were that the EPA started with a proposed $500,000 fine, and we maneuvered them down to $37,500, and that we found a way to get the chlorinated water lines installed for less than half of the government-recommended approach, on a time-payment plan that was easy for our customers. It was a tempestuous time. I had taken the Presidency when the hall was full of angry customers, our past president was being unjustly prosecuted, and no one else was willing to sit behind the microphone. I changed the way meetings were handled, and two months later we had a peaceful nearly-empty hall, and could get on with business.

When I got elected to ARD, our organization was the least-trusted and most criticized special district in the Auburn Area. I was the only one who saw what the problem was. ARD had gone through 4 nightmare District Administrators in 10 years. All were wizards at resumes and interviews, but were either inept or dishonest, or both, at managing our recreation district. I also saw what no one else saw: that Placer High School District and Sierra College had also prospered as long as they hired people from within who had proven they were trustworthy and talented; but when they did a national search to get THE BEST, disaster struck. Sierra College paid out $600,000 to a female librarian who had been bullied by their new wonder administrator, and Placer High School District had to pass a $23,000,000 local bond to pay for the new high school in Foresthill, because their wonder administrator had deliberately not applied for 1994 State School Bond money that would have built Foresthill High School. Why? Because Mr Wonderful needed passage of a local bond in his resume to get the top job at wealthy Acalanes HSD, which pays twice as much as Placer HSD, and require superintendents with a proven record of bond passage, who can persuade their wealthy citizens in Orinda and Moraga and Lafayette to pass the many bonds and parcel taxes that support their elite school system. I saw that we had to hire from within, and that we had a bright, hard-working, honest young man with a degree in Recreation Management from Northern Colorado University named Kahl Muscott who could save us from disaster. For two month in a row, the rest of the ARD Board ridiculed me because Kahl didn't have the experience. Finally, I got together with the consultant who was doing the nationwide search, and we came up with a plan: hire the new Wonder Administrator for 6 months to teach Kahl how to do the job. Our new wonder administrator was so good that he left after 3 months to build a park from the ground up at decommissioned El Toro Marine Airbase, but Kahl knew enough by then to carry on. And ARD is now a model of success among special districts.

It seems likely that LAFCO could use a person like me on the Board, to see the problems that others don't see, and to formulate solutions that others don't comprehend. That's what I have done, repeatedly. My priorities are simple: to make sure that every LAFCO decision benefits the quality of life of the people who can be affected by that decision.

Joshua Alpine

District 5 Director, Placer County Water Agency | Special District Member, Placer LAFCo

Joshua Alpine is the District 5 Director for Placer County Water Agency (PCWA), where he oversees the Agency's vital efforts to provide an affordable, reliable, and sustainable water supply to the people, environment, and economy of Placer County and the region.

Joshua currently serves on the Placer Local Agency Formation Commission (Commission); he was elected in 2016 to represent Special Districts. He also served on the Commission from 2011-2012, including a term as Chair representing the City of Colfax.

As current President of the Board of Directors for Project GO, Inc., Joshua is engaged in providing affordable housing and energy efficiency programs for low- and moderate-income working families and senior citizens in our area.

Joshua recently served on the Placer County Economic Development Board and the Association of California Water Agencies (ACWA) Board, serving as Chair of ACWA's Region 3 Board from 2015-2023 (Alpine, Amador, Calaveras, El Dorado, Inyo, Lassen, Mariposa, Modoc, Mono, Nevada, Placer, Plumas, Sierra, and Tuolumne Counties). He also serves from time to time as a member of numerous other committees and task forces.

Prior to serving as a Director for PCWA, Joshua served on the Colfax City Council from 2003-2012, including two terms as Mayor. During that time, he was very involved in wastewater, regional water, and land planning issues.

Joshua works effectively with elected officials and agencies at the local, state, and federal levels, including the Regional Water Quality Control Board and the State Water Resources Control Board, developing solutions to water and land use policies that affect our region. At the federal level, he has worked with the U.S. Environmental Protection Agency, U.S. Corps of Engineers, U.S. Department of Agriculture, and the U.S. Department of Housing & Urban Development.

Joshua has a B.S. in Information Systems Management and holds a California State Hydro Power System Operator certification. He worked as a Hydro System Operator from 2003-2009 for Pacific Gas & Electric (PG&E) operating the Bear, South Yuba, and the American Middle Fork river systems; he is currently a Lead System Operator for PG&E's electric transmission system. Joshua is also a member of the Placer County Historical Society and Colfax Lions Club. Joshua lives in Colfax.

Judy Friedman

Director, Tahoe City Public Utility District
Candidate for Placer County LAFCO Special District Alternate Seat

Judy Friedman has been a full-time resident of Tahoe City, located in the unincorporated area of Placer County, for over 50 years.

Friedman was elected to the Tahoe City Public Utility District (TCPUD) Board of Directors in 2008 and is currently serving her 4th publicly elected term. In addition to serving as a director for TCPUD, Friedman has served a variety of community organizations over the years, both as a volunteer and Board member. She is currently the President of Sierra Senior Services and is a small-business owner. Friedman has experience in both the public and private sectors and appreciates the fiduciary responsibility that comes with the office she seeks.

In her role as a public servant, Friedman makes decisions based on sound financial principles and respect for the needs and concerns of residents and the business community.

There has been tremendous growth in Placer County. LAFCO is charged with helping identify ways to organize, simplify, and streamline government and make sure that services are provided efficiently and economically. That requires thoughtful and creative solutions and well-informed decision makers.

Tahoe City was a small town in the '70s. The issues were modest, and the quality of life was hard to beat. As Placer County continues to grow, Friedman believes we need to work hard to balance quality of life while meeting growing service challenges. Friedman is fully committed to serving the citizens of Placer County in this effort, in a collaborative and transparent manner.

Judy Friedman is asking for your support to serve as Special District Alternate Commissioner and appreciates the trust that comes with your vote.

PETER GILBERT

peter-gilbert@sbcglobal.net

Current Chair, Lincoln Planning Commission

Former Councilman/Mayor. City of Lincoln

Former Councilman/Mayor. City of Foster City

Current Board Member, Placer County Mosquito & Vector Control District

Former President/Treasurer, Lincoln Hills Comm. Assoc.

Current member Lincoln Hills Foundation, Board of Directors

Former member Placer County Grand Jury

Former President – League of California Cities Peninsula Division

33 Cities in San Francisco, San Mateo and Santa Clara Counties

Former Chair, San Mateo County Criminal Justice Council

San Francisco State University – Speech Major -Radio/TV

U S Army Intelligence Corp. Sgt., E-6 Honorable Discharge

San Mateo County Safety Man of the Year for efforts funding a major highway project. (92/101 highway interchange)

Executive management experience. I have managed groups as large as 5,000 employees.

Statement of Qualifications for Election to Placer LAFCO

Richard Hercules, President, Foresthill Fire Protection District

The Opportunity for Placer County

It is certain that the special districts within Placer County will have new challenges in their opportunities and manner in which they provide unique services to the public. These serviced communities need to be bound together to develop organizational solutions for the County. These may be that is different than what exists, but again, to the benefit of the public. New state laws will also affect those districts, governments, and their purposes.

Placer County has been affected by the increased rate of development in most all areas. Special districts will be affected, but are largely managed by elected volunteers and staff that focus on the operations of that district. It is apparent that there are separations between the larger urban districts and the more remote districts, but some effort is expected to better align these groups for the issues of the County. LAFCO, with staff and support from Placer County officials, the special district volunteers and local city officials, can evaluate impacts of growth and development on these districts and urban communities and effect change. Appropriately, citizens of Placer County have expectations of services at many levels, particularly those funded by property taxes and assessment measures.

My Background

Much of my career in private industry was the development, operation of new businesses and organizations to deliver a service or product to a wide range of users. In almost all cases, my skills in these efforts required knowledge in long term planning, policy development, defined organizational structure, and legislative and financial management. Accordingly, conflict resolution and the need to manage negotiations for those opportunities is part of that environment. Further, my experience in mergers and acquisitions has broadened my perspectives in finding solutions beneficial to those parties involved, however disparate.

I have many strengths to work and balance improvements of these services through separation, consolidations or restructuring. While these activities are within the purview of LAFCO, I would apply the reality of the needs of the County and its citizens. In the last 5 years of my work with the Foresthill Fire Protection District board, I can offer that the district is better managed in this period than some of its previous history, and with better engagement and appreciation by the community is serves. This is the type of energy and commitment I would apply to this appointment. I look forward to discuss and understand the particular issues your district is experiencing. I can be reached through the Fire District web site or by telephone.

STATEMENT OF QUALIFICATIONS
PLACER LOCAL AGENCY FORMATION COMMISSION
WILLIAM KAHRL

My name is Bill Kahrl. For the last 24 years, my wife Kathleen and I have been working together with local community leaders, business owners, elected officials, friends and neighbors to protect and, where possible, to enhance the quality of life we all enjoy in Placer County.

In that connection, I am just beginning my fourth term as President of the Newcastle Fire Protection District. We've accomplished a lot. In 2023, we opened the new fire station in Newcastle that had been delayed for more than ten years. And we're enjoying considerable success with the Joint Operating Agreement we negotiated with the Penryn and Placer Hills Fire Protection Districts. As a result, we have been able to reduce the administrative costs for all three districts while at the same time improving service, reducing response times, while enhancing overall fire safety throughout central Placer.

It's not just the taxpayers who benefit. These improvements mean more opportunities for training and advancement for our firefighters and a better chance that all the communities we serve will be able to meet the increasing demands of the future.

I believe that closer cooperation, practical coordination, and innovative efficiency are essential to ensure that all our special districts will be able to continue delivering the quality of service the public has come to expect. The Placer LAFCO can be the key to making that happen. But it will require leadership. And it will require better communications among the special districts represented on the commission.

I have a long and detailed familiarity with how the LAFCO process works – and where it can sometimes fall short. In my professional life in government and business, I have worked for Democrats and Republican leaders, held key positions on the staff of the Governor and the Speaker of the Assembly, and advised several of California's major corporations as well as its largest water districts and forestry companies. As a journalist, award-winning editor and author, I've been able to focus on several of the state's major natural resource issues. Some of my proudest accomplishments in this area include the creation of the California Wild and Scenic River System, the acquisition of Point Reyes National Seashore, the preservation of Headwaters National Forest, and initiating the creation of the conservation easement that now protects more than 80,000 acres of pristine coastal lands around Hearst Castle.

The point is, I know how to get things done. And, with respect, I would like to ask for your support so that I can continue working on behalf of all our special districts on Placer LAFCO. If you have any questions or would like to discuss the issues your district is facing, please do not hesitate to call me at 916-663-0785.

William Kahrl, President
Newcastle Fire Protection District
Board of Directors

Luke Thomas Ragan
P.O. Box 1793
Tahoe City, CA 96145
530.308.5098
ragan@ntfire.net

My name is Luke Thomas Ragan. My family is fifth generation Tahoe City. I currently serve on the North Tahoe Fire Protection District Board. I have been the Vice President on that Board for the past four years and have served on the Board since 2016. I also serve on the Boards for North Tahoe Little League and the Tahoe City Recreation Association. I am currently the President of Pacific Built, Inc. and sole owner of Ragan Snow Removal in Tahoe City. I graduated from North Tahoe High School and am currently the head junior varsity football coach and work with the varsity team as well.

I am interested in this position to make a difference and protect the interests in Placer County. I appreciate your consideration to be nominated for a seat on the Placer County LAFCO Board.

Please feel free to contact me if you have any questions.

STATEMENT OF NOMINEE FOR

INDEPENDENT SPECIAL DISTRICT SELECTION COMMITTEE

Name: Teresa R Ryland, CPA, CFE

Special District: South Placer Fire Protection District

I am excited with this opportunity to serve the County on the LAFCO. This committee work would capitalize on my extensive experience in serving government agencies in Placer and allow for future decisions and conversations that benefit all residents of the County.

I have lived in South Placer for 34 years and am proud to have served as a South Placer Fire Protection District Director for over a decade. Through strategic planning, careful budgeting, and efficient operating practices we have been able to maximize our funding, thereby continuing to provide top notch service. I am committed to working with all agencies in the County to assure our strong, continued operation in support of our community and the entire County.

Professionally, I have spent 37 years working with and for California public agencies in planning, finance and facilities arenas, including the last 20 as a local, small business owner in Placer County. My business has involved working with most of the school districts in the County, several cities, the County of Placer, PCWA and of course fire districts.

I served on the fire board as we worked with Loomis Fire on an administrative and support MOU, then through the actual consolidation of the two districts. I am currently working with two other counties' LAFCOs (school district version) – Los Angeles and Sacramento county - as we work through potential school district unification projects.

It would be an honor to represent SPFD on the Placer County LAFCO.