



# Carson Water Subconservancy District Finance Committee

*A healthy watershed  
that meets the water  
needs of all users*

## NOTICE OF PUBLIC MEETING

**DATE:** February 26, 2024  
**TIME:** 8:30 am – 2 pm  
**LOCATION:** CWSD Conference Room /Zoom Meeting  
777 E. William Street, Suite 209, Carson City, 89701

Committee Members are encouraged to attend in person for this meeting.  
Lunch will be provided. Virtual attendance will be available via [Zoom](#). To phone in call (669)900-9128 and use Meeting ID: 889 1931 2623 and Passcode: 760961

## AGENDA

**Please Note:** The Carson Water Subconservancy District (CWSD) Board may: 1) take agenda items out of order; 2) combine two or more items for consideration; and/or 3) remove an item from the agenda or delay discussion related to an item at any time. All votes will be conducted by CWSD Board of Directors. Reasonable efforts will be made to assist and accommodate individuals with limited ability to speak, write, or understand English or to those with disabilities who wish to join the meeting. Please contact Catrina Schambra at (775)887-7450 or email: [catrina@cwsd.org](mailto:catrina@cwsd.org) at least 3 business days in advance so that arrangements can be made.

1. Call to Order the CWSD Finance Committee
2. Roll Call
3. For Discussion Only: Public Comment - Action may not be taken on any matter brought up under public comment until scheduled on an agenda for action at a later meeting.
4. For Possible Action: Approval of the Finance Committee Meeting Minutes of May 2, 2023
5. For Discussion Only: Review the Tentative General Fund FY 2024-25 Budget and Hear Presentations for Proposed Projects; Review the Tentative Acquisition/Construction Fund FY 2024-25 Budget; and Review the Tentative Floodplain Management Fund FY 2024-25 Budget
6. For Possible Action: Make Recommendations for the Tentative General Fund, Acquisition/Construction Fund, and Floodplain Management Fund FY 2024-25 Budgets
7. For Discussion Only: Public Comment - Action may not be taken on any matter brought up under public comment until scheduled on an agenda for action at a later meeting.
8. For Possible Action: Adjournment

Supporting material for this meeting may be requested from Catrina Schambra at 775-887-7450 ([catrina@cwsd.org](mailto:catrina@cwsd.org)) and is available on the CWSD website at <https://www.cwsd.org>

**AFFIDAVIT OF POSTING**

The undersigned affirms that on or before 9 am on February 20, 2024, a copy of the *Notice of Public Meeting and Agenda* for the February 26, 2024 meeting of the Carson Water Subconservancy District Finance Committee, in accordance with NRS 241.020 was posted at the following locations: CWSD, 777 E. William St., Ste. 209, Carson City, NV 89701; the CWSD website: <https://www.cwsd.org> and the Nevada Public Notice Website: <https://notice.nv.gov/>



2/16/2024 2pm

---

Catrina Schambra, Office Manager, CWSD

---

Date & Time of Posting

# CARSON WATER SUBCONSERVANCY DISTRICT FINANCE COMMITTEE MEETING

May 2, 2023, 2pm

## **DRAFT** Meeting Minutes

### **Committee Members Present:**

Dave Nelson, Douglas County (via Zoom)  
Ernie Schank, Churchill County (via Zoom)  
Lisa Schuette, Carson City  
Mike Workman, Lyon County

### **Absent Committee Members:**

David Griffith, Alpine County  
Jim Hindle, Storey County

### **Staff Present:**

Edwin James, General Manager  
Catrina Schambra, Secretary to the Board

The meeting was called to order at 2pm by Committee Member Nelson. The meeting was held in the Conference Room of the Carson Water Subconservancy District, 777 E. William St., #209, Carson City, Nevada with a Zoom option available. Roll call determined a quorum of the committee present.

### **Item #3 – For Possible Action: Approval of Finance Committee Meeting Minutes of February 27, 2023**

*Committee Member Schank made the motion to approve the February 27, 2023, minutes of the Finance Committee meeting. The motion was seconded by Committee Member Schuette and unanimously approved by the Finance Committee.*

### **Item #4 - Public comment:** None

### **Item #5 - For Possible Action: Discussion of \$97,524 Ad Valorem Funds from Carson City**

Mr. James explained a Carson City accounting error in CWSD Ad Valorem Taxes had recently been caught and corrected. The error spanned several years and resulted in CWSD receiving a check of \$97,524. He seeks direction from the committee on where we should put these funds. Director Workman supports putting the funds in the Flood Management account. Director Schuette concurs. There was a short discussion of the need to build this fund since the recent emergency repairs funding was approved.

*No action was taken.*

### **Item #6 - For Possible Action – Approval of Final FY23-24 Budgets**

Mr. James reviewed the final changes to the budget. He also reported a possible request for more funds on FEMA projects because FEMA is asking for more work on projects than what was in the project scopes.

*Committee Member Schank made a motion that the Finance Committee recommend that the Final budgets for the FY 23-24 General Fund, Flood Management Fund and the Acquisition/Construction Fund be approved as presented with an additional \$100,000 to the Flood Management Account. Committee Member Workman seconded the motion which was unanimously approved by the Finance Committee.*

### **Item #7 - For Possible Action – Discussion of General/Administration Costs charged by Conservation Districts to CWSD Funding Contracts**

Ed reported how the Conservation Districts (CDs) differ in how they bill for hours and operations costs. All are different in how they allocate their funding to make their budgets

work. Committee Member Griffith asked if CWSD should limit or make consistent the allowed costs for these expenses. Perhaps a uniform policy for them all? Mr. James said CWSD has never asked this of the CDs in the past. Committee Member Schank said he personally thinks we do not need more oversight of their accounting. Workman agrees, as long as projects are getting done this should not be an issue. Committee Member Schuette stated it is their responsibility to meet their budgets and get projects done. As long as we have documentation, this does not seem like an added burden we need to put on the CDs. They depend on our funding to be able to exist. Consensus to continue as we have always done.

*No action was taken.*

**Item #8 - Public comment:** None

The meeting was adjourned at 2:37pm.

Respectfully submitted,

*Catrina Schambra*

Secretary to the Board

DRAFT



# CWSD FINANCE COMMITTEE

February 26, 2024

## Approximate Time Schedule

<b>8:30</b>	Budget Overview
<b>8:40</b>	Proposed COLA Adjustment for FY 2024-25
<b>8:50</b>	Income Sources (CWSD staff)
<b>9:00</b>	Administrative Budget for FY 2024-25 (CWSD staff)
<b>9:15</b>	Multi-Year, On-going Projects, or Grants (CWSD staff) <ul style="list-style-type: none"><li>7114-00 Outside Professional Services</li><li>7117 &amp; 7118 Lost Lakes and Mud Lake Expenses</li><li>7120-00 Integrated Watershed Projects</li><li>7120-07 Watershed Tour</li><li>7120-55 Watershed Coordination Program (Grant)</li><li>7126-01 NDEM 30-Year Regional Water Plan (Grant)</li><li>7127-00 State Parks Aquatic Trail (Grant)</li><li>7404-00 Noxious Weeds Control</li><li>7442-00 FEMA Floodplain Mapping Program COMS 1 (Grant)</li><li>7500-05 USGS Stream Flow Gages</li><li>7510-01 USGS CR Basin Groundwater Monitoring</li><li>7529-00 USGS 30-Year Regional Water Plan</li><li>7600-09 Alpine County - CASGEM (Grant)</li><li>7600-16 AWG Geomorphology Study (LGIP Flood Fund)</li><li>7610-10 Regional Pipeline Payment to Douglas County</li><li>7620-11 Regional Pipeline Payment to Carson City</li><li>7630-12 HWY 50 ROW Project (LGIP Aquifer/Const Fund)</li><li>7640-22 Dixie Valley Water Level Study</li></ul>
<b>9:35 - 9:45</b>	<b>BREAK</b>
<b>9:45</b>	<b>Carson River Projects</b> <ul style="list-style-type: none"><li>1. Carson Valley Conservation District Projects</li><li>2. Dayton Valley Conservation District River Admin/Mgt</li><li>3. Dayton Valley Conservation District Weed Project</li><li>4. Lahontan Conservation District</li><li>5. Churchill County Lahontan Valley WTR LVL Project</li><li>6. River Wranglers - Carson River Workdays</li><li>7. Alpine Watershed Group Watershed Programs</li></ul>
<b>10:55</b>	<b>New Projects</b> <ul style="list-style-type: none"><li>8. Alpine County Angling Economic Analysis</li><li>9. Storey County 6 Mile Canyon Culvert Project</li><li>10. TNC Wetland Enhancement</li></ul>
<b>11:25</b>	<b>CWSD Projects</b> <ul style="list-style-type: none"><li>11. CWSD Outreach Project</li><li>12. CWSD/CRC Staffing Request</li></ul>
<b>11:45</b>	FY 2024-25 Acquisition/Construction Budget & Floodplain Management Budget
<b>NOON</b>	<b>Working Lunch, Review Budgets &amp; Make Recommendations to the Board</b>

## CARSON WATER SUBCONSERVANCY DISTRICT

**TO:** FINANCE COMMITTEE MEMBERS

**FROM:** EDWIN D. JAMES

**DATE:** FEBRUARY 26, 2024

**SUBJECT:** Agenda Item #5 - For Discussion Only - Review the Tentative General Fund FY 2024-25 Budget and hear presentations for proposed projects; review the Tentative Acquisition/Construction Fund FY 2024-25 Budget; and review the Tentative Floodplain Management Fund FY 2024-25 Budget

---

**DISCUSSION:** Attached are the Tentative FY 2024-25 budgets for the General Fund, Acquisition/Construction Fund, Floodplain Management Fund, and the proposed funding requests. For the Tentative General Fund, the total grant requests add up to \$524,274. What makes this next fiscal year budget difficult is CWSD has submitted several grant applications, but we do not know if any of our applications will be approved. In FY 2023-24 CWSD will receive approximately \$938,100 in grant funding. The current projection grant funding for FY 2024-25 is only approximately \$128,200, and we do not know what our grants opportunities will be in the future. This means that more of CWSD's administrative costs will have to be covered by property taxes.

For FY 2024-25 CWSD needs to cut approximately \$100,000 to have a balanced budget. This assumes that CWSD will transfer \$100,000 to the Flood Account and \$75,000 to the Acquisition/Construction Account.

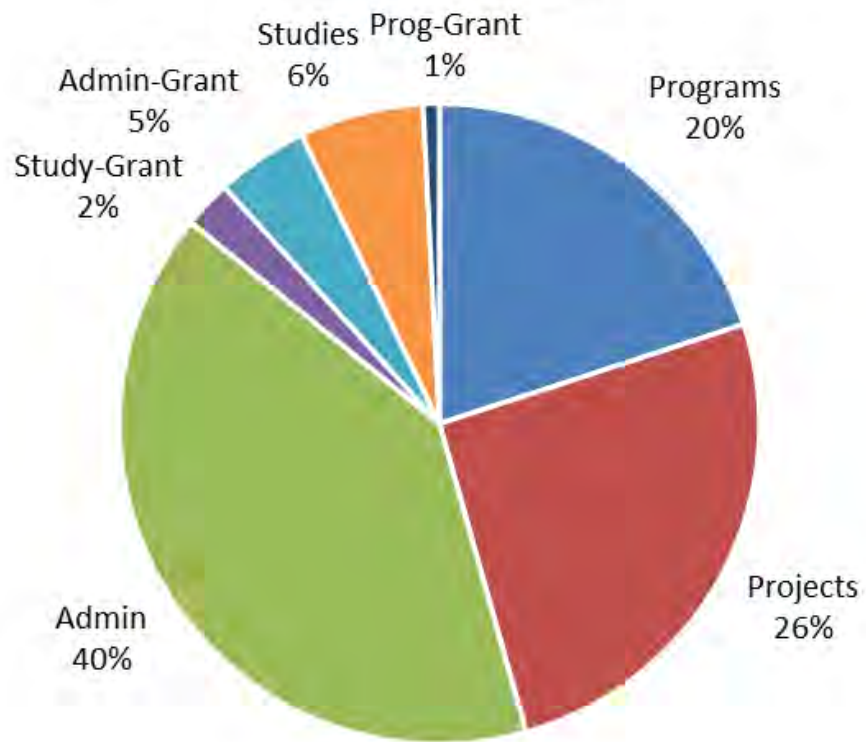
For the attached General Fund budget, items shown in blue are grant incomes and expenses. These are estimates based on program schedules. Actual costs are based on invoices. The expenditures are offset by grants funds. Items shown in black are generally fixed costs.

The projected income from Ad Valorem taxes is staff's best guess and assumes a 4 % increase over the FY 2023-24. The actual projected tax figures from the State will not be available until March 25. The proposed Cost of Living Adjustment for FY 2024-25 is 4.3%.

Attached is a pie chart that shows the percentage of expenses in the General Fund by categories of Administration, Projects, Studies, Programs, Projects Funded by Grants, Programs Funded by Grants, and Studies Funded by Grants.

**STAFF RECOMMENDATION:** Provide direction to staff on developing a balanced budget to be submitted to the full CWSD Board.

# FY 2024-25 Tentative Budget



# CARSON WATER SUBCONSERVANCY DISTRICT

## Tentative General Fund

	Proposed Tentative Budget	Approved Final Budget	Projected Actual	Notes		
	Jul '24 - Jun '25	Jul '23 - Jun '24	Jul '23 - Jun '24			
Income						
5007-00 - Storey County General Tax	20,422	17,665	19,637	4%	Federal Income 2023-24	Federal Income 2024-25
5008-00 - Alpine County	13,612	13,089	13,089	4%		
5009-00 - Churchill County Ad Valorem	268,242	257,925	257,925	4%	\$ 938,111.00	\$ 128,240.00
5010-00 - Lyon County Ad Valorem	249,307	239,719	239,719	4%		
5011-00 - Douglas County Ad Valorem	777,647	747,738	747,738	4%		
5012-00 - Carson City Ad Valorem	556,667	535,257	535,257	4%		
5022-00 - Mud Lake Water Lease	60,000	58,000	58,000			
5023-00 - Lost Lake Water Lease	880	880	780			
5031-00 - Interest Income - St Pool Reg	21,299	16,588	37,000	3.50%		
5050-13 - Watershed Coord Grant VI 2023	26,710	126,600	120,300	Grants		
5050-14 - Watershed Coord Grant VII 2024	0	0	0			
5050-07 -CRC Donation	0	0	0			
Aquatic Trail Grant	1,330	25,030	40,850	Grants		
NDEM - 30-Year Regional Water Plan	62,100	119,400	141,700	Grants		
5058-04 -208 Water Quality AG	0	20,171	20,546	Grants		
5060-00 - Misc. Income / Watershed Tour	6,500	6,000	6,985			
5082-00 - CASGEM	0	1,250	500			
FEMA MAS 12	0	124,000	119,615	Grants		
FEMA COMS 1	38,100	491,400	495,100	Grants		
Total Income	2,102,819	2,800,712	2,854,741			
Expense						
ADMINISTRATIVE EXPENSES:				Notes		
7015-00 - Salaries & Wages	548,400	529,400	515,000	4.3 COLA%		
7020-00 - Employee Benefits	240,600	212,800	215,000			
7021-00 - Workers Comp Ins.	1,400	1,000	1,200	One new Board Member		
7101-00 - Director's Fees	19,000	18,000	15,000	One new Board Member		
7102-00 - Insurance	6,600	5,400	6,001			
7103-00 - Office Supplies	4,600	4,800	3,500			
7104-00 - Postage	1,700	1,600	1,600			
7105-00 - Rent	42,253	40,973	40,973			
7106-00 - Telephone	5,600	5,300	5,450			
7107-00 - Travel-transport/meals/lodging	21,000	19,000	19,000			
7108-00 - Dues & Publications	1,700	1,600	1,600			
7109-00 - Miscellaneous Expense	1,000	1,000	1,000			
7110-00 - Conferences & Education	4,000	3,500	3,500			
7111-00 - Office Equipment	7,000	6,600	6,600	Includes copier		
7112-00 - Bank Charges	60	50	50			
7115-00 - Accounting	22,000	16,800	16,800			
7116-00 - Legal	30,000	30,000	30,000			
Subtotal-Administrative Expenses	956,913	897,823	882,274			

# CARSON WATER SUBCONSERVANCY DISTRICT

## General Fund

	Proposed Tentative Budget	Revised Final Budget	Projected Actual	
<b>Multi Year, Studies, and Grants</b>				
<b>PROJECTS:</b>	<b>Jul '24 - Jun '25</b>	<b>Jul '23 - Jun '24</b>	<b>Jul '23 - Jun '24</b>	<b>Notes</b>
7114-00 - Professional Outside Services	45,000.00	50,000.00	35,000.00	
7117-00 - Lost Lakes Expenses	16,000.00	15,000.00	15,000.00	
7118-00 - Mud Lake O & M	1,550.00	1,500.00	1,500.00	
7120-00 - Integrated Watershed Plan				
7120-07 - Watershed Tour	6,000.00	1,000.00	6,000.00	
7120-55 Watershed Coord Grant VI 2023	17,400.00	55,900.00	38,000.00	Grant
7120-56 Watershed Coord Match VI 2023	0.00	18,550.00	11,800.00	Grant
7126-01 - NDEM 30-Year Drought Plan	26,700.00	90,000.00	119,740.00	Grant
7404-00 - Noxious Weeds Control	90,000.00	90,000.00	90,000.00	
7406-00 - 208 Planning - AG Runoff	0.00	3,340.00	5,050.00	Grant
7433-10 - State Park Aquatic Trail	0.00	19,770.00	32,200.00	Grant
7441-00 - FEMA MAS #12	0.00	93,408.00	80,600.00	Grant
7442-00 - FEMA COMS #1	25,000.00	462,700.00	448,700.00	Grant
7500-00 - USGS Stream Gage Contracts	81,209.00	89,603.00	76,902.00	
7508-03 - USGS Do. Co. & Chur Co GW Collection	45,950.00	44,200.00	44,200.00	
7526-01 - USGS Middle Carson Groundwater	0.00	0.00	15,740.00	
7529-01 - USGS Water Resources 2022-2024	22,300.00	0.00	12,582.50	
7610-10 - Douglas Co Regional Pipeline	125,000.00	125,000.00	125,000.00	
7620-11 - Regional Pipeline Payment to CC	125,000.00	125,000.00	125,000.00	
<b>Subtotal Multi Year &amp; On-going Projects</b>	<b>627,109.00</b>	<b>1,284,971.00</b>	<b>1,283,014.50</b>	

## Counties and River Projects

				Notes
7215-00 - Sierra NV Journeys - Family Night		3,279.00	3,279.00	
7332-00 - Carson River Work Days		30,000.00	30,000.00	
7337-30 - CVCD 2023-24		215,000.00	215,000.00	
7337-39 DVCD Pardere Ricci Ext 6/30/24		0.00	99,699.60	Carryover fr FY 22-23
7337-40 - DVCD Bank Stab & Dayton Bridge		100,000.00	100,000.00	
7337-46 - LCD Clearing & Sand Bar Removal		29,500.00	29,500.00	
7600-05 - Alpine Co. Watershed Group.		30,000.00	30,000.00	
7600-09 - CASGEM	5.00	5.00	5.00	
7640-20 - Lahontan Valley WTR Level 2021-2024	0.00	15,000.00	15,000.00	
7640-18 - Dixie Valley WTR Level measurement	25,000.00	23,000.00	23,000.00	
TNC Riparian Reveg & bank Stabilization	0.00	0.00	3,774.00	Carryover fr FY 22-23
<b>Subtotal Carson River Projects</b>	<b>25,005.00</b>	<b>445,784.00</b>	<b>549,257.60</b>	

\*+\*

## CARSON WATER SUBCONSERVANCY DISTRICT

### LGIP Transfer Expenses

	Proposed Tentative	Revised Final	Projected Actual	
	Budget	Budget		
	Jul '24 - Jun '25	Jul '23 - Jun '24	Jul '23 - Jun '24	Notes
7630-12 - HWY 50 ROW (Cap)	40,000.00	90,000.00	50,000.00	From Acqui/Const
7620-18 - Clear Creek LOMR			6,784.00	From Flood Acc't
7610-19 - Pinenut Ck LOMR			5,945.00	From Flood Acc't
TCID Diversion Dam			50,000.00	From Flood Acc't
Churchill County Floodplain Maps	10,000.00		34,342.00	From Flood Acc't
Web Hosting (MB)		7,200.00	7,200.00	From Flood Acc't
AWG Geomorpholoical Study	43,350.00		40,000.00	From Flood Acc't
CVCD Emergency Levee Repairs			93,000.00	From Flood Acc't
<b>Total</b>	<b>93,350.00</b>	<b>97,200.00</b>	<b>287,271.00</b>	
	<b>FY 2024-25</b>			<b>Notes</b>

### New Projects

7640-20 - Lahontan Valley WTR Level 2021-2024	16,000.00			
Alpine Watershed Group	30,000.00			
River Wranglers	30,000.00			
CRC Web site host (half of \$4370) + update (\$400)	2,585.00		Second Year	\$ 4,770
Alpine Co Angling Econ Analysis	75,000.00			
Storey County culverts	36,500.00			
CRC Outreach Request	20,000.00			
Watershed Clerk position	56,900.00		Full Year	\$ 75,280
TNC River Fork Ranch 2 Year	32,089.00		Two Year Project	\$ 64,178
Carson Valley Conservation District Project	112,500.00		Two Year Project	\$ 225,000
Lahontan Conservation District Project	32,700.00			
Dayton Valley Conservation District (DVCD) Admin	50,000.00		Two Year Project	\$ 100,000
DVCD Additional Weed funding	30,000.00		Two Year Project	\$ 60,000

Total Expenses for New Projects

524,274.00 0.00 0.00

Total Expenditures

2,226,651.20 2,725,777.80 3,001,816.90

Net Ordinary Income

-123,832.58 74,933.92 -147,076.02

Other Income/ Other Income

Beginning Equity	608,546.98	552,926.50	633,352.00
Transfer from Floodplain Mgt to Gen Fd.	53,350.00	7,200.00	237,271.00
Transfer from Acqui/Const. Fd to Gen Fd.	40,000.00	90,000.00	50,000.00
	701,896.98	650,126.50	920,623.00

Based on 22-23 audit

Total Other Inc Other Expenses

8008-00 - Preliminary Planning	400,000.00	400,000.00	
Transfer from Gen. Fd. to Floodplain Fd.	100,000.00	90,000.00	90,000.00
Transfer from Gen. Fd. to Acqui/Const. Fd.	75,000.00	75,000.00	75,000.00

Total Other Expenses

575,000.00 565,000.00 165,000.00

Net Other Income

126,896.98 85,126.50 755,623.00

ENDING BALANCE

3,064.40 160,060.42 608,546.98

4 Percent 105,066.05

**CARSON WATER SUBCONSERVANCY DISTRICT  
FLOODPLAIN MANAGEMENT FUND  
Tentative Fiscal Year 2024-25 Budget**

**FLOODPLAIN MANAGEMENT FUND**

**Ordinary Income/Expense**

**Income**

5032-01 · Interest Income

**Net Income**

**Other Income**

8000-01 · Beginning Balance

Reimbursement from Churchill Co Maps

8001-01 · Transfer In-General Fund

**Net Other Funds**

**Total Available Funds**

**Expense**

TCID Diversion Flood Project

Pinenut LOMR

Clear Creek LOMR

Churchill Co Floodplain Maps

Alpine County Geomorphological Study WF

Web Access Hosting data

Emergency Streambank Repairs Levee

7203-03 Floodplain Planning

**Net Expenses**

**Transfers out-General Fund**

Web Access Hosting data

**Net Transfers Out-General Fund**

**Total Expense**

**Ending Balance**

Proposed Tentative Budget	Adopted Final Budget	Projected Actual
Jul '24- Jun '25	Jul '23- Jun '24	Jul '23- Jun '24
8,564.22	6,526.50	15,500.00
8,564.22	6,526.50	15,500.00
244,692.00	217,550.00	376,463.00
22,000.00	0.00	0.00
100,000.00	90,000.00	90,000.00
366,692.00	307,550.00	466,463.00
375,256.22	314,076.50	481,963.00
0.00	50,000.00	50,000.00
0.00	0.00	6,784.00
0.00	0.00	5,945.00
10,000.00	0.00	34,342.00
43,350.00	83,350.00	40,000.00
7,200.00	7,200.00	7,200.00
0.00	0.00	93,000.00
290,000.00	150,000.00	0.00
350,550.00	283,350.00	237,271.00
0.00	0.00	0.00
0.00	0.00	0.00
350,550.00	283,350.00	237,271.00
24,706.22	23,526.50	244,692.00

Notes

3.50%

Based on 22-23 Audit

**CARSON WATER SUBCONSERVANCY DISTRICT  
ACQUISITION/CONSTRUCTION FUND  
2024-25 Tentative Budget**

**ACQUISITION/CONSTRUCTION FUND**

**Ordinary Income/Expense**

**Income**

5032-01 - Interest Income

**Net Income**

**Other Income**

8000-01 Beginning Equity

8001-01 Transfer In from General Fund

**Net Other Funds**

**Total Available funds**

**Expense**

8015-04 Construction Projects

8015-05 Lyon Couty Utility HWY 50 ROW SS

**Net Expenses**

**Total Expenses**

**Ending Balance**

Proposed Tentative Budget	Approved Final Budget	Projected Actual
Jul '24 - Jun '25	Jul '23 - Jun '24	Jul '23 - Jun '24
43,952.13	35,446.00	56,000.00
43,952.13	35,446.00	56,000.00
1,255,775.00	1,181,544.00	1,174,775.00
75,000.00	75,000.00	75,000.00
1,330,775.00	1,256,544.00	1,249,775.00
1,374,727.13	1,291,990.00	1,305,775.00
1,200,000.00	1,100,000.00	0.00
40,000.00	90,000.00	50,000.00
1,240,000.00	1,190,000.00	50,000.00
1,240,000.00	1,190,000.00	50,000.00
134,727.13	101,990.00	1,255,775.00

Based on 3.5 %

Based on the 22-23 Audit





## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** Carson Valley Conservation District

Name  
1702 County Rd. Suite A

Address  
Minden Douglas

City Nevada County 89423

State 775-782-3661 ext 3830

richard.wilkinson@nv.nacdnet.net 775-782-3661 ext 3830

Email Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Richard Wilkinson/Mike Hayes

Name  
1702 County Rd., Suite A

Address  
Minden Douglas

City Nevada County 89423

State 775-782-3661 ext 3820

mike.hayes@nv.nacdnet.net 775-782-3661 ext 3820

Email Telephone #

**PROJECT NAME:** Carson River Restoration and Flood Damage Repairs

**PROJECT LOCATION/ADDRESS:**

Multiple Sites off of Deerhaven Road near Genoa, Nevada

39.03298,-119.81521;39.02664,-119.82169;39.00916,-119.82653;39.00696,-119.8256;39.00664,-119.82325

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See attached

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See attached

**TOTAL ESTIMATED PROJECT COST:** \$1,215,000.00

**AMOUNT REQUESTED FROM CWSD:** \$225,000.00

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

Conserve Nevada \$400,000.00 Pending  
Carson Truckee Water Conservancy District \$50,000.00  
NDEP 319 \$150,000.00  
Douglas County \$100,000.00  
NDOW \$40,000.00  
NDWR \$250,000.00

**ESTIMATED DATE PROJECT TO BEGIN:** July 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** June 30, 2026

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

USACOE Nationwide Permit  
Nevada Division of State Lands Right of Entry Permit  
Nevada Department of Environmental Protection Permits  
NDEP 410 Certification

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See attached

SIGNED: Richard Wilkinson

NAME: Richard Wilkinson

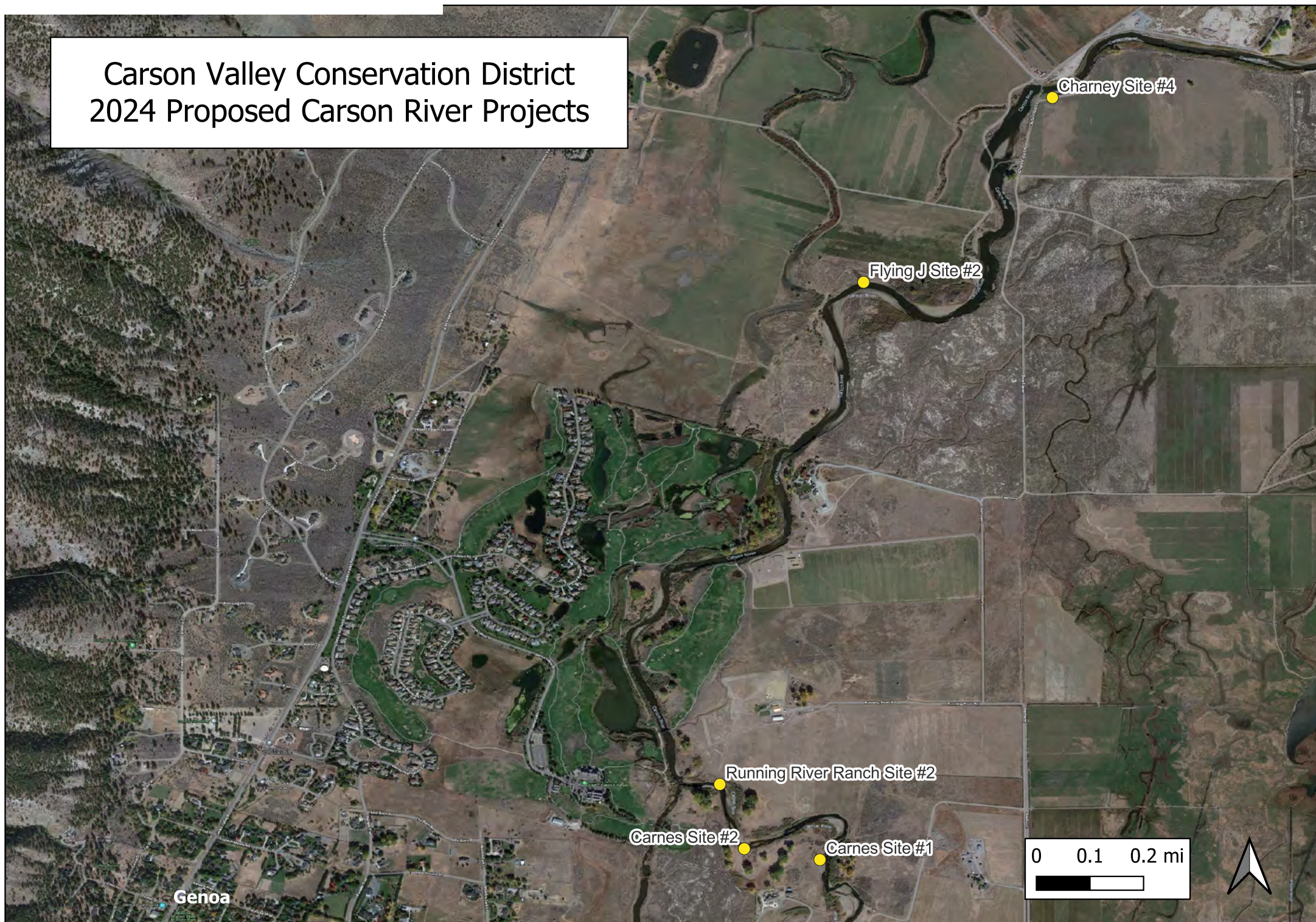
TITLE: Grant Manager/River Coordinator

DATE: 01-26-2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



# Carson Valley Conservation District 2024 Proposed Carson River Projects





# Running River Ranch Site #2

River Restoration and Bioengineering

## Legend



Feature 1



Running River Ranch Site #2

Running River Ranch Site #2

Carson River

Google Earth

300 ft





## **Running River Project Site #2**

Project Length: 550 Feet

Project Bank Height: 8 Feet

Coordinates:

Latitude: 39° 0' 33.27" N

Longitude: 119° 49' 36.14" W

### **Project Location Needs for Restoration**

- Banks are vertical or concave.
- No desirable vegetation within the project site.
- Project site contributes to sediment discharges.
- Project site conditions contribute to turbid water.
- Undermining landowner bridge abutments.
- Impacts to the landowners fencing to keep cattle out of the river.

### **Project goals:**

- Source in-stream fill materials.
- Shape bank to a 3 to 1 slope
- Add 2 to 3 overflow swales
- Place rip rap for toe protection
- Install Streambarbs
- Install COIR Fabric
- Install willow mats.
- Install willow poles.
- Install willow bundles
- Reseed all disturbed areas





## Flying J Site #2

Restoration and Bioengineering establishment

### Legend



Flying



Flying J Ranch Site #2 Flood Damage Repairs/Restablishment

Flying J Ranch Site #2 Flood Damage Repairs/Restablishment

Carson River

Google Earth

400 ft

N



## **Flying J Project Site #2**

Project Length: 550 Feet

Project Bank Height: 8 Feet

Coordinates:

Latitude: 39° 1' 35.92" N

Longitude: 119° 49' 16.43" W



### **Project Location Needs for Restoration**

- Banks are vertical or concave.
- No desirable vegetation within the project site.
- Project site contributes to sediment discharges.
- Project site conditions contribute to turbid water.
- Undermining landowner bridge abutments.
- Impacts to the landowners fencing to keep cattle out of the river.

### **Project goals:**

- Bring in clean fill materials.
- Shape bank to a 3 to 1 slope
- Place rip rap for toe protection
- Install Streambarbs
- Install COIR Fabric
- Install willow mats.
- Install willow poles.
- Re-seed all disturbed areas



# Charney Site #4

River Restoration and Bioengineering Project

## Legend

 Feature 1

Charney Site #4 Project 

Charley Vista Ln

Carson Rd

Google Earth

300 ft





## **Charney Project Site #4**

Project Length: 1000 Feet

Project Bank Height: 9 feet

Coordinates:

Latitude: 39° 0' 20.10" N

Longitude: 119° 48' 51.99" W



### **Project Location Needs for Restoration**

- Banks are vertical or concave.
- No desirable vegetation within the project site.
- Project site contributes to sediment discharges.
- Project site conditions contribute to turbid water.
- Undermining landowner bridge abutments.
- Impacts to the landowners fencing to keep cattle out of the river.

### **Project goals:**

- Bring in clean fill materials.
- Shape bank to a 3 to 1 slope
- Place rip rap for toe protection
- Install COIR Fabric
- Install willow mats.
- Install willow poles.
- Re-seed all disturbed areas



# Carnes Flood Damage Restoration

Stabilize 500 feet of eroded riverbank

## Legend

-  Carnes Flood Damage Project
-  Feature 1

 Carnes Flood Damage Project

Google Earth

Image © 2023 Airbus

400 ft






# Carnes Project Site #1

River Restoration and Bioengineering Project

## Legend

-  Carnes Flood Damage Project
-  Feature 1

Carnes Flood Damage Project

Google Earth

200 ft





## Site-Specific Project Details

### Carnes Project Site #1

Project Length: 550 Feet  
Project Bank Height: 8 Feet  
Coordinates:  
Latitude: 39° 0' 23.70" N  
Longitude: 119° 49' 23.91" W

### Project Location Needs for Restoration

This project is directly between two previous restoration projects that were completed in fall 2023. The location experienced flooding damage in 2017 and more recently in 2023. CVCD staff noted a head cut has expanded 18 feet to the west resulting in severe erosion, impacts to water quality, and loss of vegetation. In addition to the environmental impacts the landowner has lost property, trees, and a fence to the most recent flood damage.



- Banks are vertical or concave.
- No desirable vegetation within the project site.
- Project site contributes to sediment discharges.
- Project site conditions contribute to turbid water.
- Undermining landowner bridge abutments.
- Impacts to the landowners fencing to keep cattle out of the river.
- This project directly impacts the past restoration project downstream

### Project Scope of Work

CVCD will cut back the vertical bank and shape it to a 3 to 1 slope. Although the project will utilize bioengineering techniques, CVCD also intends to use rock riprap to protect the toe of the bank. Once the bank is reconstructed and prepared for planting, CVCD will install COIR fabric, willow mats, willow poles, and willow fascines. All areas where materials or equipment have been staged will be reseeded. If funding allows, CVCD would like to plant several large cottonwood trees. Due to severe erosion, there is no native or desirable vegetation onsite.



- Source in-stream fill materials.
- Shape bank to a 3 to 1 slope
- Add 2 to 3 overflow swales
- Place rip rap for toe protection
- Pending Topo Install Streambarbs as needed
- Install COIR Fabric
- Install willow mats.
- Install willow poles.
- Install willow bundles
- Reseed all disturbed areas



# Carnes River Project Site #2

River Restoration & Bioengineering

## Legend

-  Carnes
-  Feature 1

Carnes Site #2

Google Earth

300 ft





## **Carnes Project Site #2**

Project Length: 650 Feet

Project Bank Height: 8 Feet

Coordinates:

Latitude: 39° 0' 25.19" N

Longitude: 119° 49' 32.22" W

### **Project Location Needs for Restoration**

- Banks are vertical or concave.
- No desirable vegetation within the project site.
- Project site contributes to sediment discharges.
- Project site conditions contribute to turbid water.
- Undermining landowner bridge abutments.
- Impacts to the landowners fencing to keep cattle out of the river.
- This project directly impacts the past restoration project downstream



### **Project goals:**

- Source in-stream fill materials.
- Shape bank to a 3 to 1 slope
- Add 2 to 3 overflow swales
- Place rip rap for toe protection
- Pending Topo Install Streambarbs as needed
- Install COIR Fabric
- Install willow mats.
- Install willow poles.
- Install willow bundles
- Reseed all disturbed areas

<b>CVCD Draft Detailed Budget* - 2024 CWSD</b>	
Project Management	\$80,000
Administration	\$20,000
Permitting	\$50,000
Supplies	\$75,000
Equipment Fuels	\$2,500
Vehicle Mileage Reimbursements	\$10,000
Professional Services Environmental	\$25,000
Historical	\$7,500
Engineering	\$50,000
Archeological Monitors	\$20,000
Bioengineering Crew	\$150,000
Contractor plus subs	\$725,000
<b>Totals:</b>	<b>\$1,215,000</b>

*\*CVCD will draft a specific project budget once all funding requests have been processed and granted or denied. Estimated funding sources listed in the supporting materials document have been awarded in recent years but are not guaranteed. Funding totals will ultimately determine the scope of work for each of the five proposed project sites. Once funding totals are determined, a complete categorized line-item budget will be provided. This information should be available by April 2024 and will be provided Carson Subconservancy District staff. Due to the nature of river projects, quotes for construction contractors and materials will not be available until later summer once water levels are low enough for final engineering surveys to be completed. Site conditions change yearly and it is not possible to finalize plans until a few months preceding construction initiation.*



# Carson Valley Conservation District

## 2024 Conserve Nevada – Supporting Materials

### 12/28/23

#### Project Objectives:

Carson Valley Conservation District (CVCD) will complete flood damage repairs and bioengineering establishment at five different project locations. Proposed actions include bioengineering treatments, sediment removal, bank shaping, rock riprap barbs, and bank protection. Project objectives include:

- Utilize instream materials to reconstruct eroded banks and protect with rock riprap and bioengineering techniques.
- Utilize sand and gravel deposits as fill materials and minimize channel migration.
- Construct rock riprap stream barbs to push thalweg to the center of the river channel and reduce hydraulic pressure directed towards the degraded riverbanks.
- Establish native vegetation to protect degraded riverbanks. Utilize bioengineering techniques such as planting willow poles, willow mats, willow fascines and container plants, and reseeding on all the proposed projects.

#### Projects Overview:

CVCD has prioritized flood damage repairs at five project sites on the Carson River. Two sites are located where previously completed projects sustained flood damage and require maintenance; these sites include Flying J Site #2 and Charney Site #4. Three sites are newly identified locations where CVCD has not previously performed bank stabilization activities. The first of these is Carnes Site #1, where a significant head cut has formed on the west side of the riverbank. Sustained flooding conditions in 2023 caused severe erosion resulting in the loss of 18 feet of riverbank. The second newly identified project location is Carnes Site #2, downstream of the first location. The third newly identified project location is Running River Ranch Site #2. These sites have similarly experienced vertical head cuts and severe erosion. **See site-specific project details at end of document.**

The five proposed project sites occur over approximately 1.75 miles of the Carson River. Bank stabilization activities would significantly stabilize this entire project reach and restore the function of previous restoration work in the area. The Nevada Division of Environmental Protection has determined that this reach is impaired and in need of water quality improvement projects.

#### Projects Methods:

CVCD will hire a construction contractor to source fill materials, perform riverbank reconstruction, haul and place rock riprap, and install stream barbs. CVCD staff will harvest and install willow poles, willow mats, willow bundles, and willow fascines, install COIR fabric, and plant native seed. These methods will minimize soil erosion, trap sedimentation and thus improve water quality, improve wildlife habitat, and alleviate the devastating impacts of flooding for local landowners.

#### Projects Goals:

- Re-establish native and desirable riparian vegetation
- Stabilize eroding riverbanks
- Improve water quality
- Mitigate future sediment transport
- Improve wildlife habitat
- Increase channel capacity
- Assist Agricultural Producers with flood damage along the river

### **Projects Tasks:**

- Initiate project stakeholder meetings
- Obtain Right of Entry Permits
- Renew or initiate permitting
- Establish landowner access with formal right-of-entry permits
- Hire a consultant for support with design and bidding documents
- Determine the need for repairs or modifications
- Solicit formal bids from contractors
- Start construction and harvesting of bioengineering materials and plants
- Purchase or rent an irrigation system
- Seasonal operation of irrigation system
- Quarterly reporting and reimbursements
- Complete construction
- Submit final reports and reimbursements

### **Maintenance and Measures of Success:**

CVCD is mandated to maintain existing projects installed on the bed and banks of the Carson River which is owned by the State of Nevada. To meet maintenance objectives and keep existing projects functioning as designed, flood damage repairs and restoration work will occur at multiple locations.

CVCD will monitor all five proposed projects for the required 20 years. Staff will return to sites annually to determine if projects are intact and functioning as designed. Over time it is expected that improvements in the germination and growth of willows, container plants, and seeding will occur. Monitoring will ensure the projects' success in sediment trapping, the deflection of hydraulic energy away from restored banks, and the natural recruitment of riparian vegetation. GPS established photo monitoring waypoints will allow CVCD to visually record the success or failure of projects over the required period of maintenance.

### **Construction Methods and Equipment Used:**

Equipment may vary based on each contractor's preference. However, the following equipment is typically utilized for riverbank stabilization projects as follows.

- Large dozer, typically D-8 or larger, with a semi-u blade used for pushing materials.
- Large loader with a 4 cubic yard bucket or larger used for lifting materials.
- Large backhoes used for pushing, trenching, or lifting materials.
- Skid steers used for back dragging and lifting materials.
- Large excavators used for trenching, lifting, and placing materials.
- Trucking equipment used for hauling materials and equipment.

### **Permit Requirements:**

United States Army Corp. of Engineers Nationwide Permit  
Nevada Department of Environmental Protection Working Waterways Permit  
Nevada Division of State Lands Right of Entry Permit  
State Historic Preservation Office Archeological Section 106  
Nevada Division of State Lands Right of Entry Permit  
CVCD Landowner Access Owners Right of Entry Permit

**Estimated Funding Sources:**

Conserve Nevada Program	\$400,000.00	Submitted 12-28-23 FY 24-25
Carson Truckee Water Conservancy District	\$50,000.00	Submit in Spring FY 24-25
Carson Water Subconservancy District	\$225,000.00	Submit in Spring FY 24-25
Nevada Division of Wildlife	\$40,000.00	Submit in Spring FY 24-25
Nevada Division of Environmental Protection	\$150,000.00	Submit in Spring FY 24-25
Douglas County	\$100,000.00	Approved FY 24-25
Nevada Division of Water Resources	<u>\$250,000.00</u>	Submit in Spring FY 24-25
	\$1,215,000.00	Pending Income

**DRAFT ESTIMATED PROJECT BUDGET:**

CVCD will draft a specific project budget once all funding requests have been processed and granted or denied. The above estimated funding sources have been awarded in recent years but are not guaranteed. Funding totals will ultimately determine the scope of work for each of the five proposed project sites. Once funding totals are determined, a complete categorized line-item budget will be provided. This information should be available by April 2024 and will be provided to the Conserve Nevada Program. Due to the nature of river projects, quotes for construction contractors and materials will not be available until later summer once water levels are low enough for final engineering surveys to be completed. Site conditions change yearly and it is not possible to finalize plans until a few months preceding construction initiation.

Project Management	\$80,000
Administration	\$20,000
Permitting	\$50,000
Supplies	\$75,000
Vehicle Mileage	\$10,000
Equipment Fuels	\$2,500
<u>Professional Services (Below)</u>	
Environmental	\$25,000
Historical	\$7,500
Engineering, Surveying, design, Construction Stakeouts, and As-built Surveys	\$50,000
Archeological Monitors	\$20,000
Bio-engineering Crew	\$150,000
<u>Contractor</u>	<u>\$725,000</u>
Totals:	\$1,215,000



2

## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** Dayton Valley Conservation District

Name  
34 Lakes Blvd

Address  
Dayton Lyon

City NV County 89403

State  Zip Code

rholley.dvcd@yahoo.com 775-246-6220 ext 1878

Email Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Robert L Holley

Name  
same

Address

City  County

State  Zip Code

Email Telephone #

**PROJECT NAME:** DVCD Management/Administration

**PROJECT LOCATION/ADDRESS:**

Dayton Valley Conservation District

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See Attached

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See Attached

**TOTAL ESTIMATED PROJECT COST:** \_\_\_\_\_

**AMOUNT REQUESTED FROM CWSD:** \$50,000 (2 adjacent fiscal years)

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

NDEP 319 (h)	\$100,000
NDEP 319 (h)	\$150,000
NDOT	\$100,000
Lyon ARPA	\$150,000
DCNR CNP	\$250,000
Lyon annual	\$20,000

**ESTIMATED DATE PROJECT TO BEGIN:** Ongoing

**ESTIMATED TIME TO COMPLETE PROJECT:** 2.5 years

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See Attached

SIGNED: Robert L. Holley

NAME: Robert L. Holley

TITLE: District Manager, DVCD

DATE: Jan 25, 2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information.

**History:** Dayton Valley Conservation District began in 1996 as the Middle Carson River Coordinated Resource Management Plan, or Middle Carson River CRMP. In 1999 the CRMP was became the Dayton Valley Conservation District. Since it's inception, the primary source of funding for Management and Administrative staff came from the Carson Truckee Water Conservancy District. This funding remained in place until 2013. During that 17 year span, with it's management and administrative costs covered through these funds (\$80,000 annually as of 2013), DVCD completed over 40 major construction projects, multiple repairs, and brought in excess of \$15,000,000 into the local economy.

Since the loss of annual personnel and overhead funding in 2013, DVCD has covered those expenses through grant funds, with approximately \$50,000 per year coming from grants awarded by the Carson Water Subconservancy District.

While DVCD has been able to complete one major project and multiple repair projects, the use of project funds to cover staff and overhead has hindered DVCD's ability to successfully complete river projects. DVCD is on-schedule to complete the Pradere/Ricci/Dayton Bridge project in late 2024, and the weed program is staged to start up again, as well, with broad efforts throughout the Middle Carson watershed.

In order to restore the effective implementation of designated project funds, DVCD must obtain a reliable and consistent source of funding, and maintain a committed source of operational funding during the period leading up to the establishment of consistent funding.

**Project:** DVCD has the opportunity to establish a dedicated source of funding, which we hope would be approved/established in late 2026. Having begun to look into the process and the political/geographical ramifications, there is much to address and accomplish during the upcoming 2.5 years. We do, however, believe that DVCD can accomplish this through a coordinated effort involving community outreach and education, successful completion of the Pradere/Ricci/Bridge project in 2024, and widely visible conservation/restoration efforts that are beneficial to the greater population within the conservation district.

Continuing to utilize project funding for personnel and overhead costs is not a tenable approach. We understand this. DVCD is requesting a 2-year commitment from CWSD to provide annual funding to cover non-project-related personnel and overhead in order to facilitate the accomplishment of DVCD becoming self-supporting beginning in 2027.

Over the next 2.5 years, in addition to the Pradere/Ricci/Bridge project, Dayton Valley CD will be executing a large-scale noxious weed/habitat restoration effort that includes an extensive public relations element. There is a significant amount of time and effort required, outside of these endeavors, to continue the daily function of district matters, and to work on the coordination, education, and implementation of the efforts to secure funding.

Funding sources on the application are indicative of several key elements. The primary being that sufficient funds exist for project work on Ricci/Pradere to be completed in late 2024, and that the groundwork has been laid for successful completion of river and weed projects during the upcoming 2-year period.



**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP.

The goal of DVCD is to successfully complete the projects that are currently on the slate, and in so doing, establish broad public awareness and support of the DVCD mission with visible outcomes that benefit the broad population of Central Lyon County. The successful completion of the Pradere/Ricci/Bridge projects, the implementation of successful noxious weed/habitat restoration throughout the Middle Carson watershed, and the engagement of the public through public events, social media, and other avenues are expected to contribute to broader public awareness and support for DVCD and its efforts.

Since 1996, DVCD has quietly performed projects that have protected vital riparian areas, agricultural lands, public open spaces, water quality, and habitat restoration. In order for these efforts to continue for years to come, DVCD is in critical need of a consistent source of dedicated funding. In order to accomplish this, DVCD needs a funding source to cover ordinary and customary daily management, administrative, and operational functions. These are a large portion of the personnel and operational expenses, and necessary for both the function and survival of DVCD.

Having a two year source of said funds will allow DVCD to:

- 1) Successfully complete ongoing/planned projects which enhance and support riparian function, water quality, flood plain restoration/protection, public education/engagement, and noxious weed control
- 2) Avoid continued spending of project-related funding on management/administrative costs
- 3) Successfully conduct the necessary efforts to establish public support for and designated funding for the ongoing and successful implementation of broad-reaching conservation efforts within the watershed of the Middle Carson River
- 4) Establish a program at DVCD that is widely identified and supported within the community





**PROJECT LOCATION/ADDRESS:**

Dayton Valley Conservation Dist  
Central Lyon Coop Weed Mgmt Dist

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See Attached

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See Attached

**TOTAL ESTIMATED PROJECT COST:** \$138,109

**AMOUNT REQUESTED FROM CWSD:** \$30,000(\$60K over 2 FY's)

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

Nevada Department of Agriculture/USFS - \$28,109.00 (2 year time span)

Carson Water Subconservancy Weeds - \$25,000.00 (\$50,000 over 2 years)

**ESTIMATED DATE PROJECT TO BEGIN:** Spring, 2023

**ESTIMATED TIME TO COMPLETE PROJECT:** 2.5 years (\$30,000x2)

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

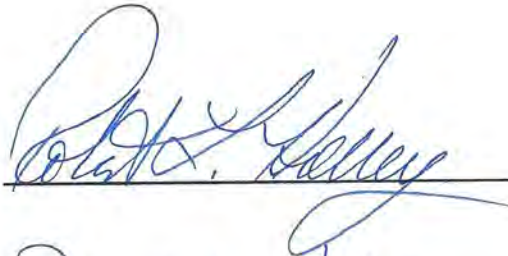
**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

Applicator certifications to be obtained through NDA for staff conducting weed treatments. Landowner authorizations to be obtained, as needed, for work on private land.

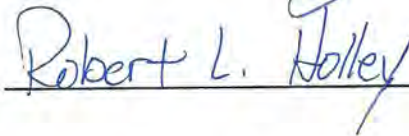
**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See Attached

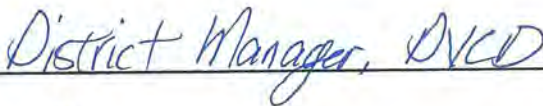
SIGNED: \_\_\_\_\_



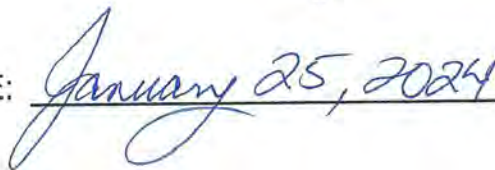
NAME: \_\_\_\_\_



TITLE: \_\_\_\_\_



DATE: \_\_\_\_\_



*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information.

With assistance from the Nevada Dept. of Agriculture/USFS, Dayton Valley Conservation District is preparing to embark on a multiple year noxious weed management and treatment project that will encompass not only the riparian corridor and adjacent floodplains, but also several primary drainages that feed the middle Carson River in Lyon County. These areas include the Moundhouse Industrial Complex, Daney Canyon, Six Mile Canyon in Lyon County, Gold Canyon in Lyon County, lower Eldorado Canyon, and the riparian corridor and adjacent floodplains of the Carson River between from Dayton Valley to and including the Fort Churchill area.

In the late Spring of 2024, DVCD will be hiring a Conservation Technician, and at least one 9-month seasonal employee in order to address noxious weed control, revegetation, and habitat restoration within the aforementioned areas.

Additionally Noxious Weed funding from CWSD will be applied to this project, with emphasis given not only to appropriate weed treatments, but coordinated restoration of treated and surrounding areas. The CWSD funds will offset some personnel costs related to the Conservation Tech, and will also address equipment maintenance/repair, supply and seed acquisition, and public information/education materials designed to inform area residents through USPS mail programs, social media posts, and public forums.

Specifically, the requested \$30,000 (to be requested next fiscal year, as well) will be applied primarily toward the hiring of at least one staff to assist the Conservation Tech during the spring, summer and fall months. Efficient and effective weed treatments require precise and rapid applications that are better accomplished with multiple personnel. Some funds, as required, may be applied to acquisition/maintenance/repair of related equipment and supplies.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP.

Not only will this project greatly reduce noxious weed populations, but associated revegetation and reseeding efforts will increase the resiliency of treated and surrounding lands and increase floodplain permeability and effectiveness.

Public relations and education efforts will not be limited to noxious weeds, but will include watershed and floodplain education to improve community awareness related not only to the natural processes, but to the vital role that Dayton Valley Conservation District has maintained in protecting and enhancing these processes in and around this community.

Simply put, DVCD has the equipment and expertise to perform large-scale and effective noxious weed control and restoration work. We have lacked the staff over the last 4 seasons to accomplish this type of work. The pooling of the NDA/USFS grant, CWSD Weed grants, and these requested funds (over two years) will enable DVCD to reestablish control of noxious weed populations while making visible and functional improvements to the riparian area, the flood plain, adjacent agricultural and private lands, and to multiple tributaries of the Middle Carson River.



<b>APPLICANT:</b>	
Lahontan Conservation District	
Name	
111 Sheckler Road	
Address	
Fallon	Churchill
City	County
Nevada	89406
State	Zip Code
christy.sullivan@nv.nacdnet.net	(775) 423-5124 extension 101
Email	Telephone #

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_

Telephone # \_\_\_\_\_

3



**PROJECT LOCATION/ADDRESS:**

**Carson River Channel below  
Diversion Dam to the Carson Sink**

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

*The project is an ongoing effort to create a river channel that is clear of obstructions and provides a free flow at natural choke points.*

*For example, the Highway 50, Highway 95 and Bafford Bridges has historically been clogged by debris during high water flooding events. Obstructions in these locations causes back up and overflow that moves into residential housing areas in both the county and city of Fallon. Locations where sediment caused islands changed the flow, eroded banks, or blocked flows under bridge. Removal of sediment will provide debris/obstructions to flow downstream more freely.*

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

*It takes a combination of debris, foliage, beaver dam and sediment removal to maintain a clear channel. This work effort provides the following benefits on an annual basis and must also be maintained and continued to overcome the normal foliage growth, discarding of manmade debris and natural obstructions that enter the channel repeatedly.*

*Downstream benefits to improve the Carson River Watershed.*

- Minimize stream bank erosion, improve water quality, and re-establish native vegetation.*
- Reduce flooding risk along the Carson River, particularly to residential and commercial development.*
- Reduce flood damage risk to water and sewage infrastructure installed in Churchill County.*
- Improve the administration and management of the river and stream system.*
- Improve the opportunities for citizens to use the river for recreational purposes.*
- Maintaining a clean/clear river channel will improve water quality and aid the overall stewardship plan.*

**TOTAL ESTIMATED PROJECT COST:** \$ 65,400.00

**AMOUNT REQUESTED FROM CWSD:** \$ 32,700.00

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

In-kind *Match*:

<i>Churchill County Grant Funding</i>	<i>\$ 6,500.00</i>
<i>Lahontan Conservation District Administration and Equipment</i>	<i>\$ 11,700.00</i>
<i>Landowners Equipment and Labor</i>	<i>\$ 14,500.00</i>
<i>Total</i>	<i>\$ 32,700.00</i>

**ESTIMATED DATE PROJECT TO BEGIN:** October 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** March 30, 2025

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

Permit with the Nevada Division of Environment *Protection*.

- *Site/ID Invoice # GMNT-40165*
- *Permit type: Routine Maintenance Activities*
- *Valid from July 1, 2023, to June 30, 2024 (Pending July 1, 2024, to June 30, 2025)*

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

*This project will prevent and minimize property loss and other damage during flood conditions. Riverbank stabilization after sediment removal will minimize erosion, improve water quality and re- establish native vegetation. Maintaining a clear channel will enable the citizens to utilize the river for recreation. Maintaining an adequate velocity of the river flow prevents stagnant pools from developing where mosquitoes can propagate and create health issues for residents along the course of the Carson River.*

SIGNED: Christy Sullivan

NAME: Christy Sullivan

TITLE: District Clerk

DATE: January 25, 2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



HIGHWAY 50



HIGHWAY 50



HIGHWAY 95



HIGHWAY 95





5

## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:**

Churchill County

Name

Jim R. Barbee

Address

155 N. Taylor St., Suite 153 Churchill

City

Fallon

County

89406

State

Zip Code

jim.barbee@churchillcountynv.gov

(775) 423-5136

Email

Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Mahannah & Associates, LLC

Name

Chris Mahannah, P.E.

Address

P.O. Box 2494 Washoe

City

Reno

County

89505

State

Zip Code

chris@mah2o.com

(775) 323-1804

Email

Telephone #

**PROJECT NAME:** Lahontan Valley Water Level Measurement Program

**PROJECT LOCATION/ADDRESS:**

Lahontan Valley - Churchill County, NV

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See attached Exhibit A

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See attached Exhibit A and refer to previously submitted PPT dated 12/14/2020, which provides an overview of water resource related issues in Basin 101, including the water level monitoring program.

**TOTAL ESTIMATED PROJECT COST:** \$63,000

**AMOUNT REQUESTED FROM CWSD:** \$48,000

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

Churchill County, Nevada

FY25: \$5,000

FY26: \$5,000

FY27: \$5,000

**ESTIMATED DATE PROJECT TO BEGIN:** 07/01/2024

**ESTIMATED TIME TO COMPLETE PROJECT:** 06/30/2027

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See attached Exhibit A and refer to previously submitted PPT dated 12/14/2020, which provides an overview of water resource related issues in Basin 101, including the water level monitoring program.

SIGNED: 

NAME: Jim R. Barbee

TITLE: County Manager

DATE: 01/24/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*

## Exhibit A

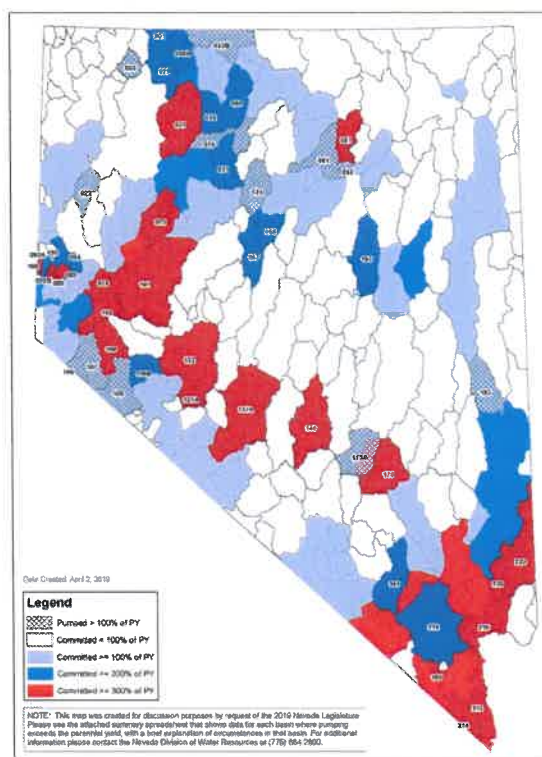
### Introduction:

The Lahontan Valley aquifer system consists of four aquifers as defined by the USGS: shallow, intermediate, deep and basalt aquifers. The shallow aquifer extends from 0-50', intermediate from 50-500/1000', deep greater than 500-1000' and the volcanic basalt aquifer in the central portion of the valley. There are approximately 5,000 domestic wells which tap the shallow aquifer and most quasi-municipal or public water supply wells in the unincorporated portion of the County tap the intermediate aquifer. The City of Fallon, Fallon Naval Air Station and Fallon Paiute-Shoshone Tribe have wells completed in the Basalt aquifer. The deep aquifer is saline and is generally considered non-potable. The State Engineer requires any new permitted wells be completed in the intermediate aquifer and sealed in the top 100'. The natural recharge in the Carson Desert Hydrographic basin #101 has been estimated by the USGS at 1,300 afa from precipitation and 1,200 afa inflow from other basins for a total estimate of natural recharge or Perennial Yield (PY) of 2,500 afa. The committed underground water rights and domestic well use exceeds 21,000 afa, therefore the basin is over-appropriated without considering recharge from the Newlands Irrigation project and System Yield. As shown on the State Engineer map to the right, committed rights exceed PY by over 300% and estimates of pumping exceed the PY as well. This map has been presented in previous Legislative sessions by the State Engineer to demonstrate the status of basin over appropriation throughout the state. Furthermore, and more recently in November, 2023 the State Engineer released a new set of Basin Status Assessment Map Series:

[2023 Basin Status Map Series.pdf \(nv.gov\)](#) which contains six (6) map sheets:

1. Water level trends
2. Potential capture by GW pumping
3. Commitments vs. Perennial Yield
4. Pumping vs. Perennial Yield
5. Domestic well use vs. Perennial Yield
6. Overall GW condition index

Comparison among Groundwater Commitments,  
Pumpage, and Perennial Yield in Nevada Basins



All these maps place the Carson Desert and Basin 101 in a poor light when comparing to

Perennial Yield rather than a System Yield. For this and other reasons, the State Engineer issued Order# 1116 in 1995 limiting any new underground appropriations to 4,000 gallons per day (4.48 afa) or less. There are significant losses from unlined canals/laterals and on-farm losses to deep percolation which recharge the shallow aquifer. The shallow aquifer recharges the intermediate aquifer in the western portion of the basin which is hydraulically connected to the Basalt aquifer in the central portion of the valley.

The USGS has conducted two water level studies (WRIR 93-4118 & SIR 2004-5246) which focused on water level measurements primarily in the shallow aquifer and associated changes related to lands withdrawn from irrigation due to USFWS water right purchases and transfers to the Stillwater Wetlands. Some of the wells monitored in these studies are currently being monitored by the USGS and are shown on the map included in the attached Power Point presentation given to the Churchill County Commissioners on 12/14/20. The USGS provides quarterly letter updates to Churchill County summarizing the measurements. Churchill County & CWSD entered into Interlocal Contract #2011-6 in July, 2011 to coordinate with the USGS and add wells to monitor Intermediate aquifer well water levels in the NW portion of the Valley where quasi-municipal growth has and will continue to occur. Given that all new permitted wells must be completed in the intermediate aquifer, basin over-appropriation, limited availability to appropriate new groundwater (Order# 1116), potential additional domestic wells in due to parcel splits, Churchill County and the State Engineer feel there is a need for an ongoing water level measurement program. Funding under the current CWSD Interlocal Contract #2021-8 in the amount totaling \$54,000 (CWSD: \$44,000; Churchill County: \$10,000) was provided over a 3-year period which ends 6/30/24. The County is proposing contribution of in-kind services for administrative costs as well as increasing their direct funding match to \$15,000 of the total project cost. Therefore, the funding request for this application is seeking \$48,000 from CWSD for a 3-year term, which is a modest increase for CWSD of just over \$1,300 per fiscal year over the current three-year 2021-18 contract, while Churchill County's increase in direct funding is an additional \$5,000 over the term. It was always anticipated in the original contract that this would be an ongoing effort, therefore this funding request seeks additional funding to continue the program for three more fiscal years, through FY27.

#### **Project Description /Benefits:**

The existing project entailed a detailed review of the USGS reports and water level measurements to identify potential gaps in aerial and vertical (shallow vs. intermediate aquifers) extent to determine where additional water level measurement would be useful. This resulted in approximately 28 wells completed predominately in the Intermediate aquifer being selected for water level measurement. These wells have been measured monthly since ~January 2012 and preliminary results were presented to the Churchill County BOCC and CWSD on 4/23/14 and updated again in periodic update presentations to the Churchill County BOCC. In May, 2014 approximately 7 more Intermediate aquifer wells were added to the program to fill in identified gaps in the NW portion of the valley. All wells have been surveyed with the County's survey grade Leica GPS unit to obtain accurate coordinates and well-head elevations

such that vertical and horizontal gradients can be determined. The County's water level monitoring program which focuses primarily on the Intermediate aquifer compliments the USGS program which focuses mainly on the Shallow and Basalt Aquifers.

In the April 2014 presentation, no significant water level declines were being observed to date in the Intermediate aquifer excepting some localized decline and subsequent recovery of wells located adjacent to the Truckee Canal west of Hazen because of the canal being dry and refilling. Intermediate aquifer wells generally showed full recovery during winter months when pumping stresses were at a minimum whereas Shallow aquifer wells showed the just the opposite with full recovery during mid-summer when unlined irrigation laterals and canals were charged and recharging the shallow aquifer. Vertical gradient measurements showed downward gradients and recharge from the Shallow to Intermediate aquifer. Additionally, there was a correlation between stage of the Carson River and adjacent Shallow aquifer wells.

The Carson Division frequently experiences shortages in surface water deliveries which are summarized since 2012 in the following table, followed by a record flood and water spreading year in 2017.

#### **CARSON DIVISION ALLOCATIONS**

<b>YEAR</b>	<b>ALLOCATION</b>	<b>CUTOFF DATE</b>
2012	90%	2-Nov
2013	75%	7-Sep
2014	45%	29-Jul
2015	21%	3-Jul
2016	75%	20-Sep
2017	100%	NONE

Because of the ongoing drought from 2012 – 2016 most of the Intermediate aquifer wells experienced a 1-2 foot/year decline in seasonal high and low water levels. Some localized declines of 2-3 feet/year have been observed near areas of heavy pumping near the Sand Creek municipal and golf course wells. The most heavily pumped area around the Wildgoose farm for irrigation has only shown ~ 0.5 feet/year decline and this is most likely due to recharge from the adjacent V-Line and Carson River. With increased deliveries in 2016 and record flooding and water spreading during 2017, seasonal high-water levels have returned to above 2012 levels in most Intermediate aquifer wells. With shortened irrigation seasons, one large farmer has acquired supplemental groundwater rights to continue irrigation after surface water deliveries have been shut off. If additional farmers adopt this practice and the State Engineer grants supplemental groundwater pumping during drought, this could cause further water level declines during shortage years.



This project is technically and environmentally sound and will assist the water users/managers and public in understanding water issues and the status of their aquifers. It will help identify potential areas where discharge exceeds recharge and aquifer storage change. If areas are identified where there are continued steady water level declines, it could improve and/or trigger additional administration and management in those areas. Since the current and near term quasi-municipal supply is almost entirely dependent upon ground water development in the intermediate aquifer and most of the recharge is associated with Newlands Project losses which are dynamic due to water right transfers and canal lining it is recommended to pursue this monitoring program and adaptive resource management. Part of the justification for the State Engineer issuing Order# 1116 was: 'the present recharge experienced from surface water irrigation and delivery systems is declining due to more efficient irrigation practices and improvements in the delivery system'. See Chapter 9 of Churchill County Water Resource Plan Update, April 2007 for further discussion on this issue. Additionally, Churchill County constructed a redundant municipal well (SC#2) in 2021 to tie in with their Sand Creek municipal water treatment plant and SC#1 well to augment their supply and improve reliability. Water rights have been transferred to the SC#2 location and during the review process in these change applications, the State Engineer hydrology staff asked about impacts of municipal pumping on adjacent domestic wells. Owners of domestic wells within 2500 feet of the point of diversion must be notified if the diversion rate of the application exceeds 0.50 cfs before the State Engineer will act on the applications. We were able to demonstrate through this water level monitoring program that there were no notable impacts to nearby domestic wells adjacent to the SC#1 well. Additionally, the County has secured ARPA funding to construct two more municipal wells and an arsenic treatment plant for their proposed Central water delivery zone as identified in the 2019 Shaw Engineering Water & Wastewater Master Plan.

The project has regional benefits since most of the surface supply for the Newlands project and hence recharge come from the Carson River which are augmented by the Truckee River. The Churchill County Water Resource Plan Update has identified the local intermediate aquifer as the near term quasi-municipal supply and the length of time it can sustain development is contingent upon recharge from the surface water system and downward gradients from the Shallow aquifer to the Intermediate aquifer in the western portion of the basin. Due to the relative slow movement of groundwater, impacts to the Intermediate aquifer due to reductions in recharge from the Shallow aquifer were thought to take years or decades to fully manifest, however recovery of water levels in 2016 – 2017 seem to contradict this. Ongoing monitoring is critical to further understand the rate of decline in water levels during drought years and subsequent recovery during wetter years. Furthermore, the State Engineer relies on water level data when making many water resource and water rights decisions.

At such time that the intermediate aquifer can no longer support the demand, other resources will need to be developed which are identified in Chapter 12 of the Updated Water Resource Plan. Some of these alternatives such as the Wildgoose farm or Dixie Valley importation may be regional in nature and others involve conjunctive use and artificial recharge of surface waters. This program will provide an early warning as to when some of these other regional



type alternatives will need to be pursued.

The ongoing funding request is for an additional three-year term through FY27, however it is anticipated for this program to be successful as a long-term management tool, that it be continued as an ongoing effort. Ongoing data summary presentations like those given to the Churchill County BOCC on 2/1/18, and at the new Commissioners workshop on 12/14/20 include a map of wells monitored in the Churchill and USGS networks, key hydrographs, and discussion of the data or any trends observed.

# Churchill Co. Water Overview

## Special County Commission Meeting

14 December 2020

**Chris Mahannah, P.E., SWRS**

**Mahannah & Associates, LLC**

# Overview of topics:

## 1. Basin 101 Hydrology

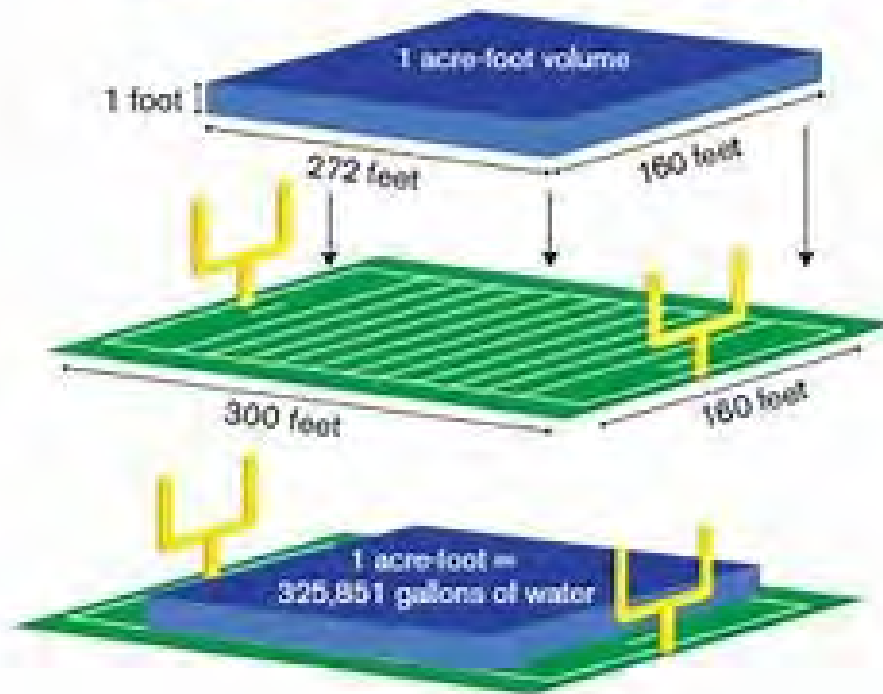
- a) Water budget vs. committed rights
- b) Water Planning
- c) Water level monitoring
- d) Wildgoose farm
- e) Geothermal plant monitoring

## 2. Water Resource Protection

## 3. Dixie Valley



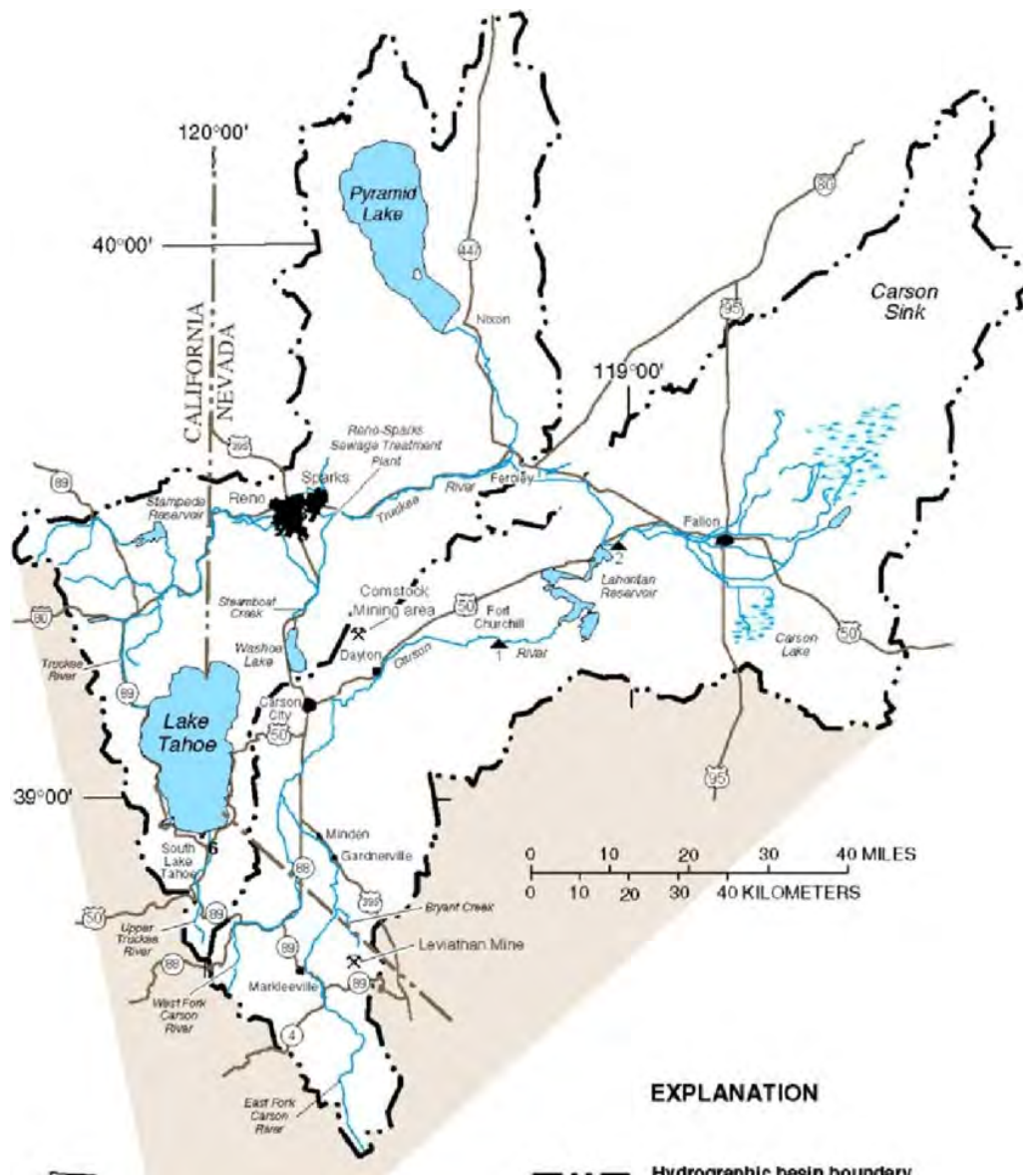
# What is an acre-foot?



VOLUME: 1 AF = 1 FT X 43,560 FT<sup>2</sup> ~ 326,000 GALLONS

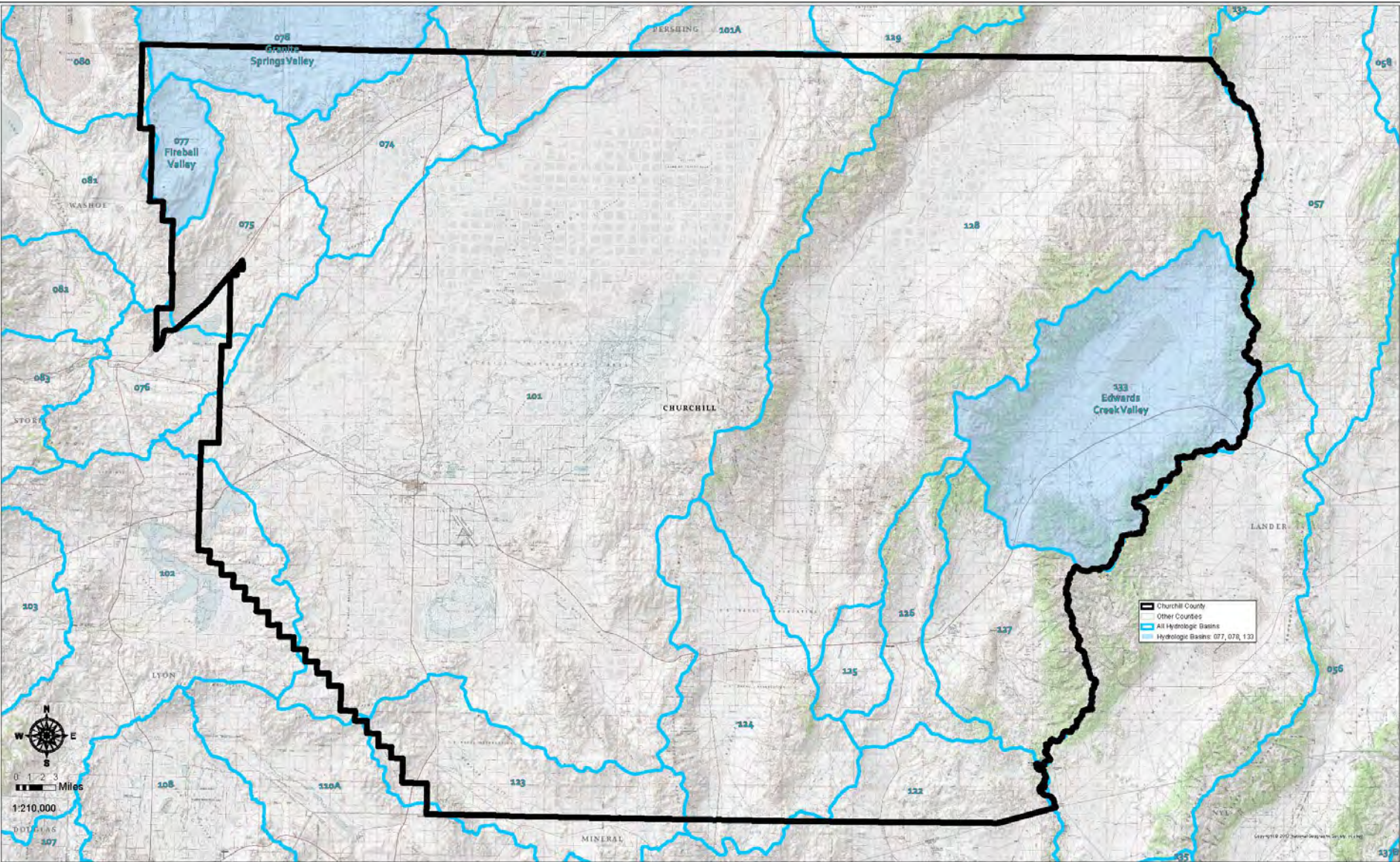
RATE: AFA = ACRE-FEET/ANNUM

AFS = ACRE-FEET/SEASON









HYDROLOGIC BASINS IN CHURCHILL COUNTY  
NEVADA

Mohammadi & Associates  
PO Box 2484 Reno NV 89505  
(775) 323-1004

File Name: CC Hydro Basins  
Job No.  
Date: 10/27/2020







# Groundwater Budget:

- $\text{Inflow} - \text{Outflow} = \Delta \text{Storage}$
- $\text{Recharge} - \text{Discharge} = \Delta \text{Storage}$
- Recharge:
  - Natural: Precipitation
  - Newlands Project Infiltration (Canals, Drains & On-farm)
  - Secondary Recharge (Septics, Lawn Watering, etc)
  - Inter-basin: In-Flow
- Discharge:
  - Evapotranspiration- ET (Natural, Crop, Lawn, Wetlands)
  - Net Consumptive Pumping
  - Inter-basin: Out-Flow



# Project Effects on Recharge Soda Lake:



1800's

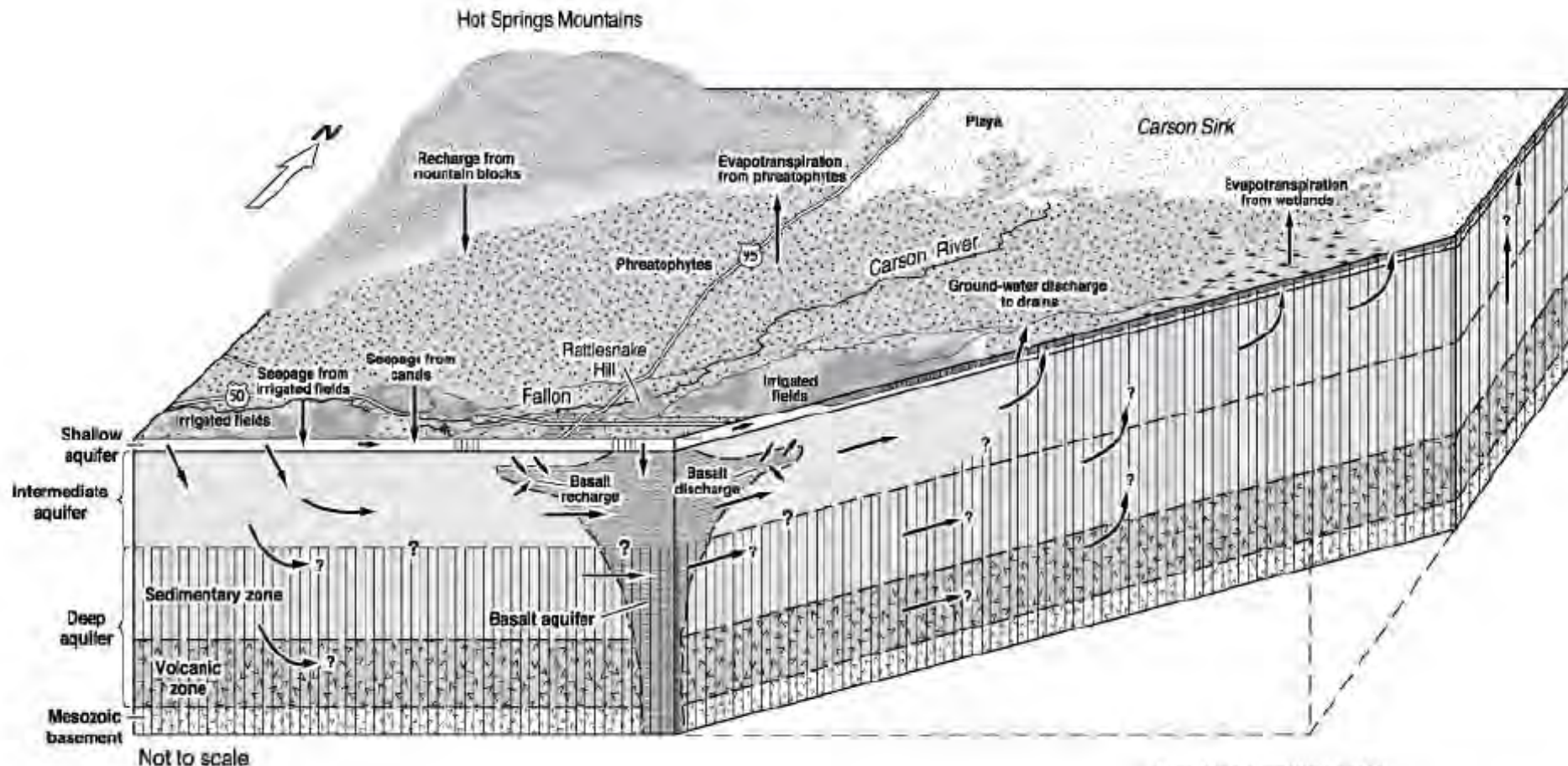


2009

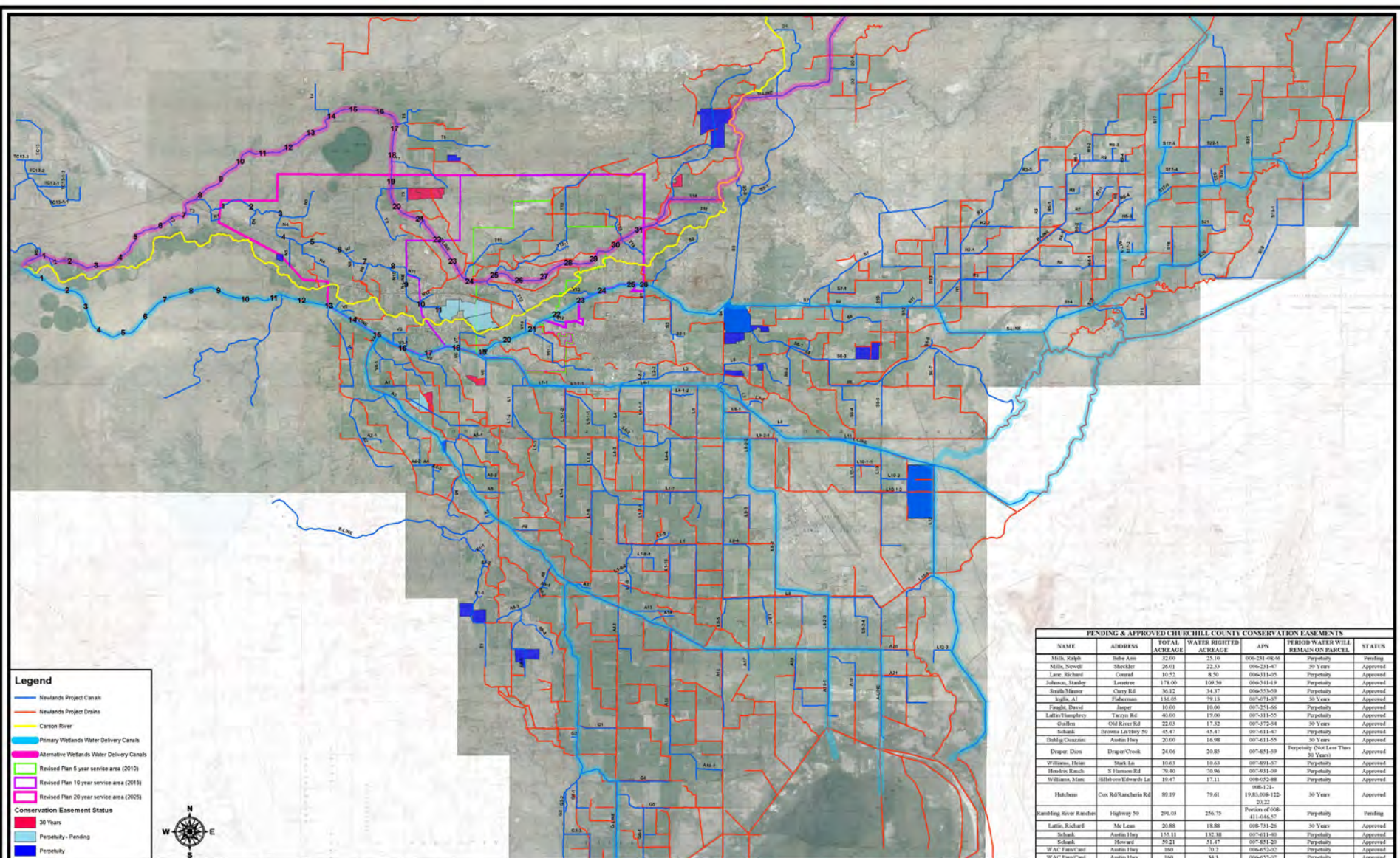
▲ Water Level or Storage >50 feet

# Basin 101 Aquifer systems:

USGS: Shallow Aquifer Recharge from Project: ~50,000 – 100,000 afa  
Intermediate Aquifer Recharge from Shallow: ~32,000 afa  
Natural Recharge from Precipitation: ~1,300 afa  
Inter-Basin Flow: ~1,200 afa







NAME	ADDRESS	TOTAL ACRES	WATER RIGHTED ACRES	APN	PERIOD WATER WILL REMAIN ON PARCEL	STATUS
Mills, Ralph	Boke Ave	32.00	25.10	006-231-08-00	Perpetuity	Pending
Mills, Newell	Shackler	26.01	22.33	006-231-47	30 Years	Approved
Lane, Richard	Conrad	10.32	8.30	006-511-05	Perpetuity	Approved
Johnson, Stanley	London	178.00	109.50	006-541-19	Perpetuity	Approved
Smith/Mann	Cherry Rd	36.12	34.37	006-553-53	Perpetuity	Approved
Boyle, Al	Palmerston	136.08	79.13	007-271-27	30 Years	Approved
Faugh, David	Jeppet	10.00	10.00	007-271-66	Perpetuity	Approved
Lattin/Humphrey	Ensign Rd	40.00	19.00	007-511-55	Perpetuity	Approved
Guthrie	Old River Rd	22.63	17.25	007-512-24	30 Years	Approved
Schank	Brownes Ln/Hwy 50	45.47	43.47	007-541-47	Perpetuity	Approved
Baskig/Osanzini	Austin Hwy	20.00	16.08	007-541-55	30 Years	Approved
Dwyer, Dion	Dwyer/Crook	24.06	20.85	007-551-39	Perpetuity (Not Less Than 30 Years)	Approved
Williams, Helen	Stark Ln	10.63	10.63	007-601-37	Perpetuity	Approved
Hendrix Ranch	S. Hansen Rd	70.40	50.00	007-611-09	Perpetuity	Approved
Williams, Mary	11th Street/Carroll Ln	19.47	17.11	008-052-88	Perpetuity	Approved
Hutchins	Con Rd/Rancheria Rd	89.19	79.61	008-121-26	30 Years	Approved
Ranching River Ranches	Highway 50	291.03	256.75	Portion of 008-211-04 & 57	Perpetuity	Pending
Lattin, Richard	Mc Lane	20.88	18.88	008-751-24	30 Years	Approved
Schank	Austin Hwy	155.11	132.08	007-541-40	Perpetuity	Approved
Schank	Howard	50.21	31.47	007-551-20	Perpetuity	Approved
WAC Farm/Ord	Austin Hwy	180	70.21	006-652-22	Perpetuity	Approved
WAC Farm/Ord	Austin Hwy	180	84.5	006-652-47	Perpetuity	Approved

SCALE: 1" equals 4,000'  
Aerial Photos Taken June 4, 2005

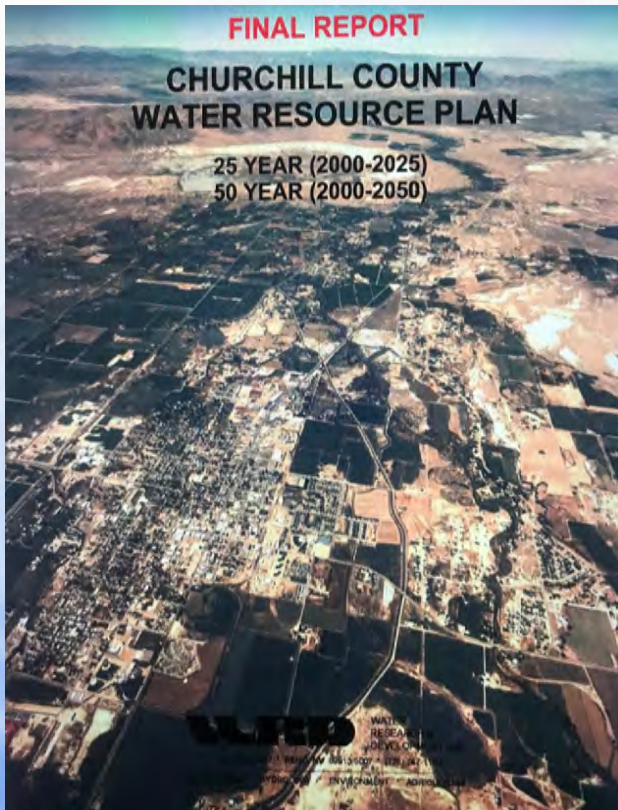
Map 9. Stillwater, Carson Lake & FPST Wetland Delivery Canals & Conservation Easements

Maharajah & Associates  
PO Box 2014 Reno NV 89505  
(775) 325-1804

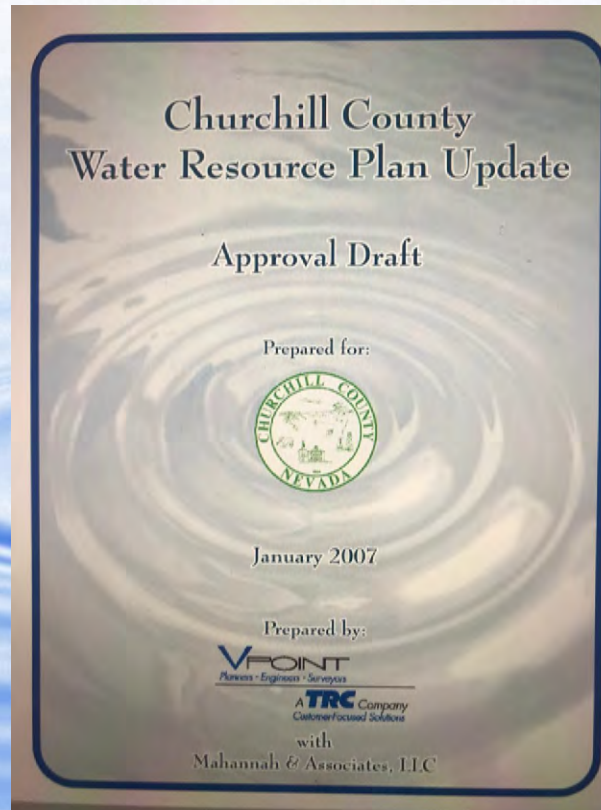
Map 9. Stillwater, Carson Lake & FPST Wetland Delivery Canals & Conservation Easements  
Scale: 1" = 4,000'  
Aerial Photos Taken June 4, 2005



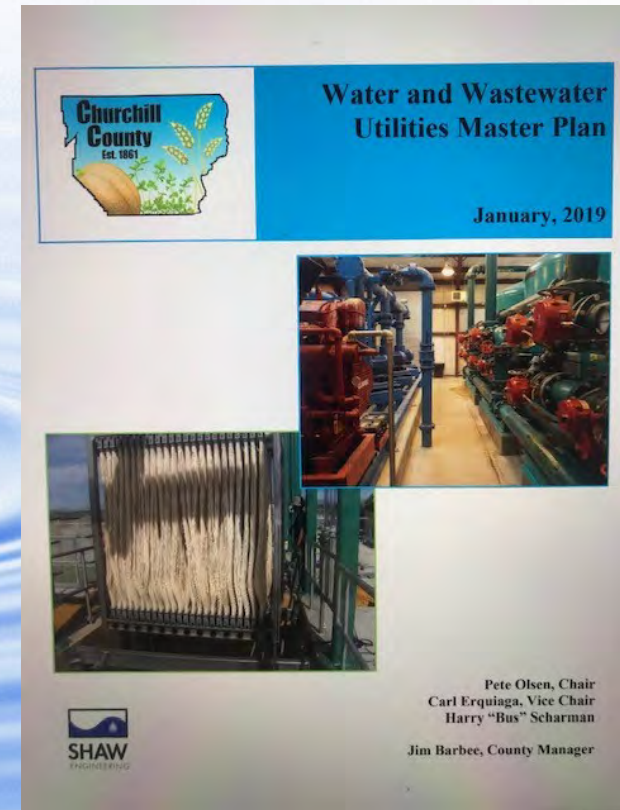
# Water Planning



2000

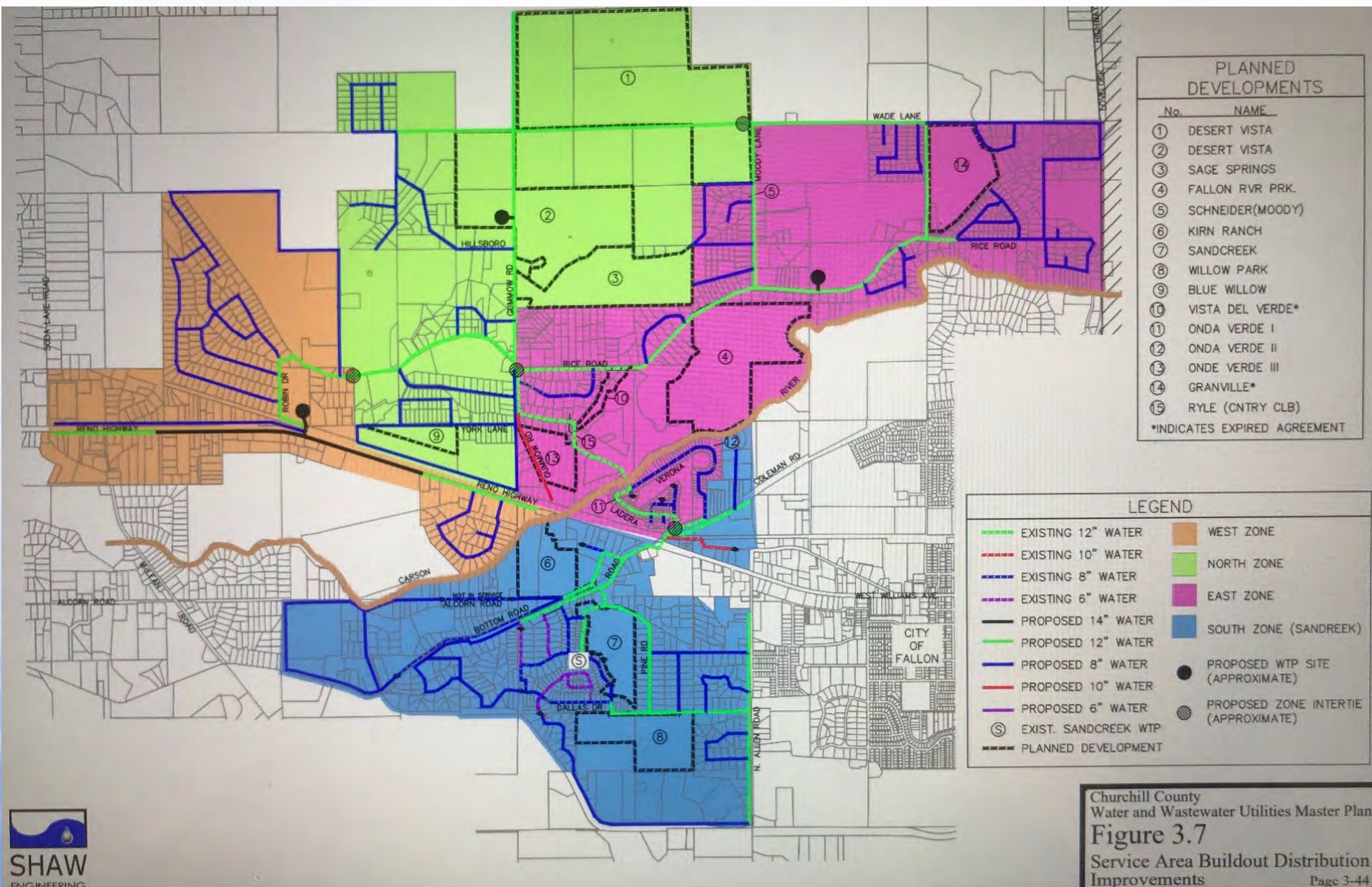


2007



2019







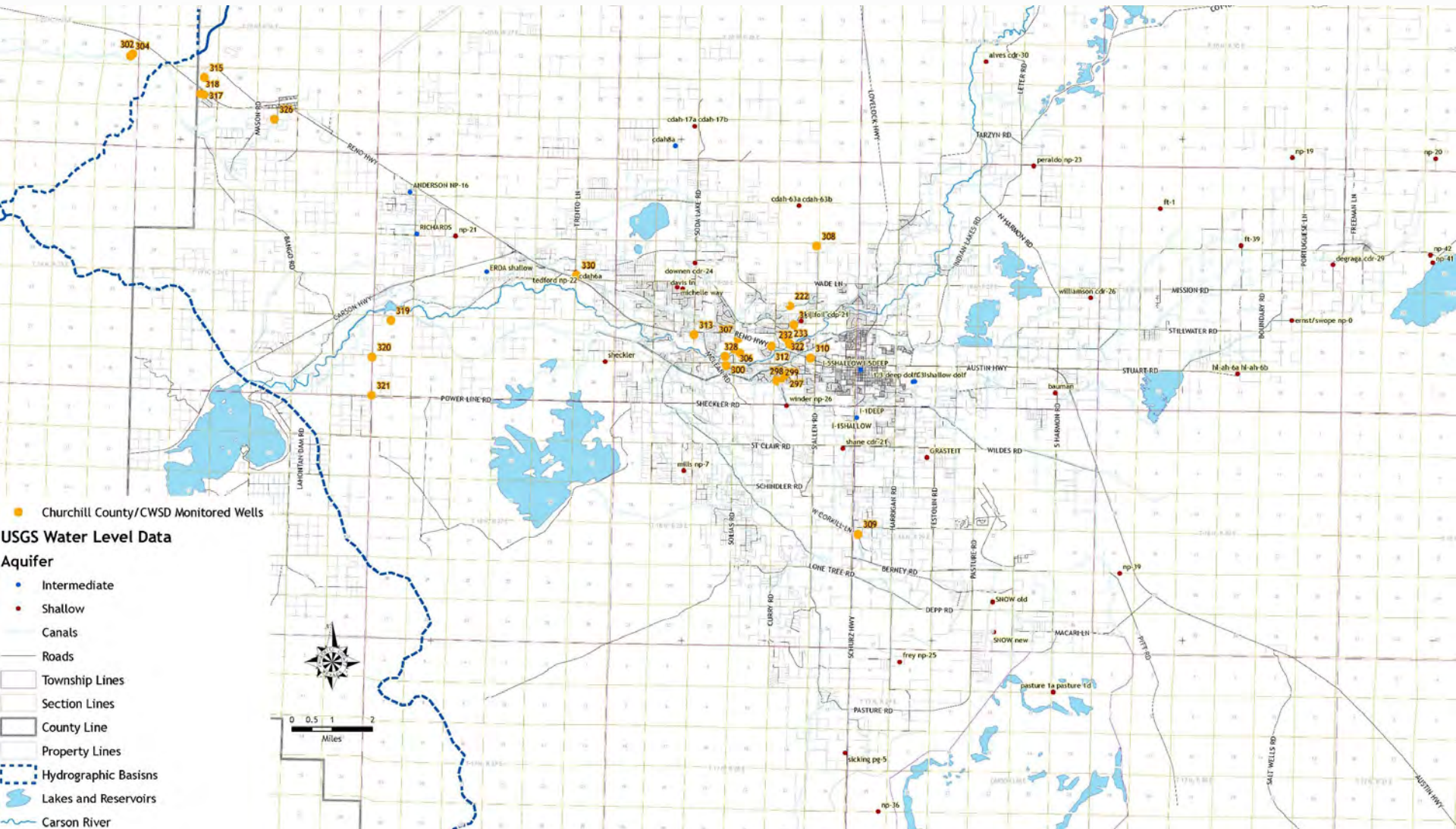
# Basin 101 Water Level Monitoring

- Inter-Local Contract with CWSD
- \$56K
- 3-year ongoing effort thru FY 20/21

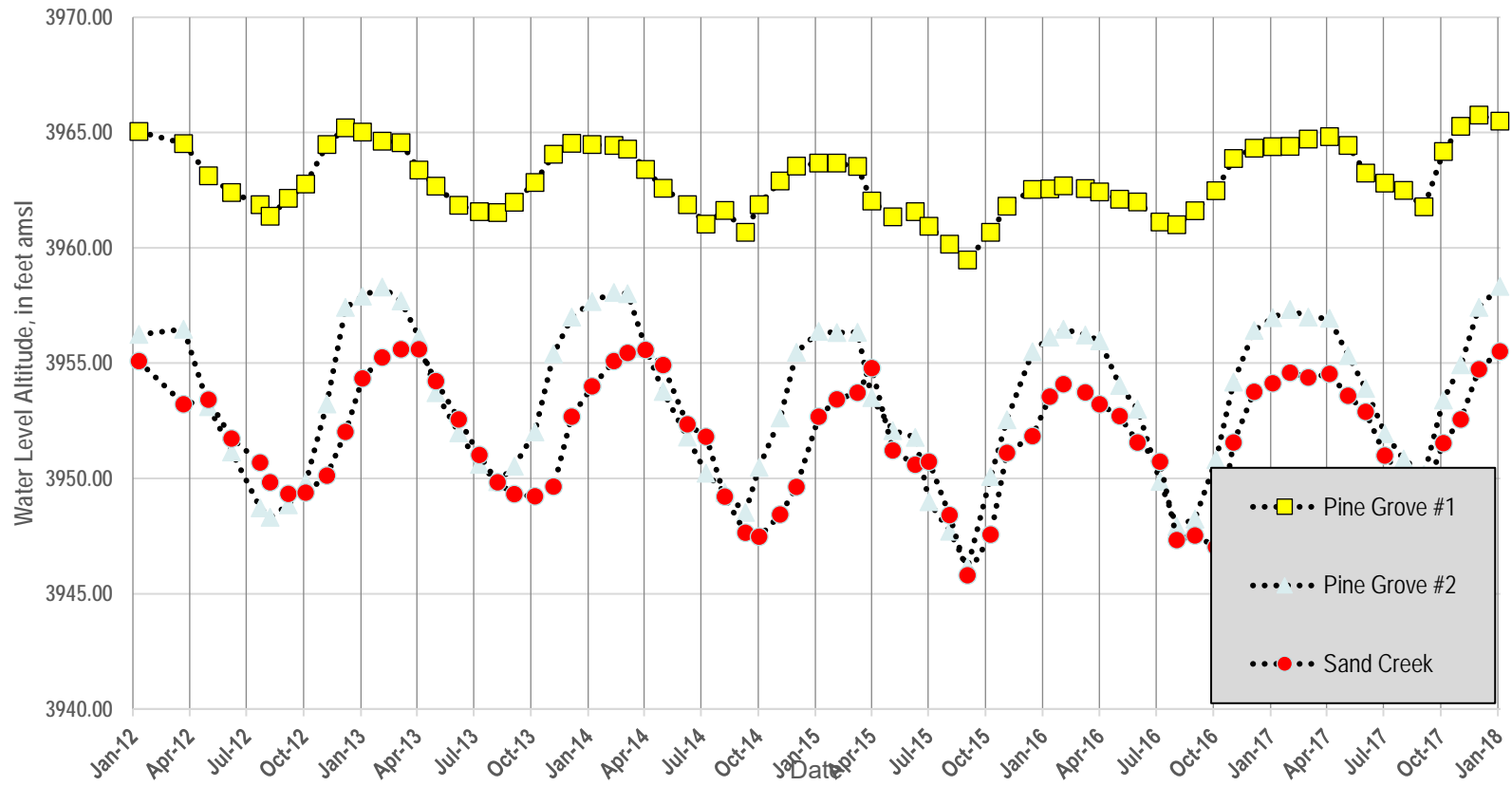




# USGS & Churchill Co/CWSD Water Level Monitoring Network



## Pine Grove Area





# Wildgoose Farm

County Owned  
Water Rights: ~2,200 AFA

Potential future municipal water supply:

- Meets Arsenic standard
- Potential for ASR project



MAY 12 2006



# Geothermal Reviews – SUP Compliance

*(paid by industry)*

- Enel – Stillwater
  - 2008: Negotiated a Monitoring Plan
  - Base Line Report & various other geothermal report reviews
  - 2014: New Monitoring Plan negotiated
- Cyrq – Patua
  - 2013: Negotiated a Monitoring Plan
  - 2014: Baseline Report
- Annual MP Review & Recommendations to PC



# Implement Water Resource Protection Policy

1. Review Monthly Water Right Applications filed with State Engineer/NDWR
2. Recommend Applications for Protest
3. Protest Preparation & Filing
4. Protest Negotiation & Resolution
5. Water Right Hearing:
  1. Conduct Field work & studies as needed
  2. Prepare / Provide Expert Witness Testimony before State Engineer
  3. Assist in Brief/Motion preparation
  4. Assist in Appeals
6. Coordination with Churchill DA / Outside Counsel
7. Coordination / Collaboration w/ CNRWA & HRBWA
8. Coordination / Collaboration w/ neighboring Counties
9. Updates to County Manager / Commissioners
10. Water related Legislation negotiations



# Dixie Valley UG water export



- 13 Applications filed in 1985-86 Seeking new appropriation of >50,000 afa
- Preliminary GS studies in '80's
- Applications quitclaimed to County in '90's
- Dixie identified as a long-range municipal water supply for Lahontan Valley, independent from Truckee/Carson rivers in Churchill Co. Water Plans



# Dixie Valley Study

- ~\$5M / 5 ... 7 year study - BOR Grant
- Study Team:
  - BOR
  - USGS
  - DRI
  - State Engineer
  - Private Consultants:
    - Hydro Bio
    - Mahannah & Associates
      - InterFlow Hydrology
      - Sustainable Solutions: Dick Benoit
      - Justin Huntington, PhD

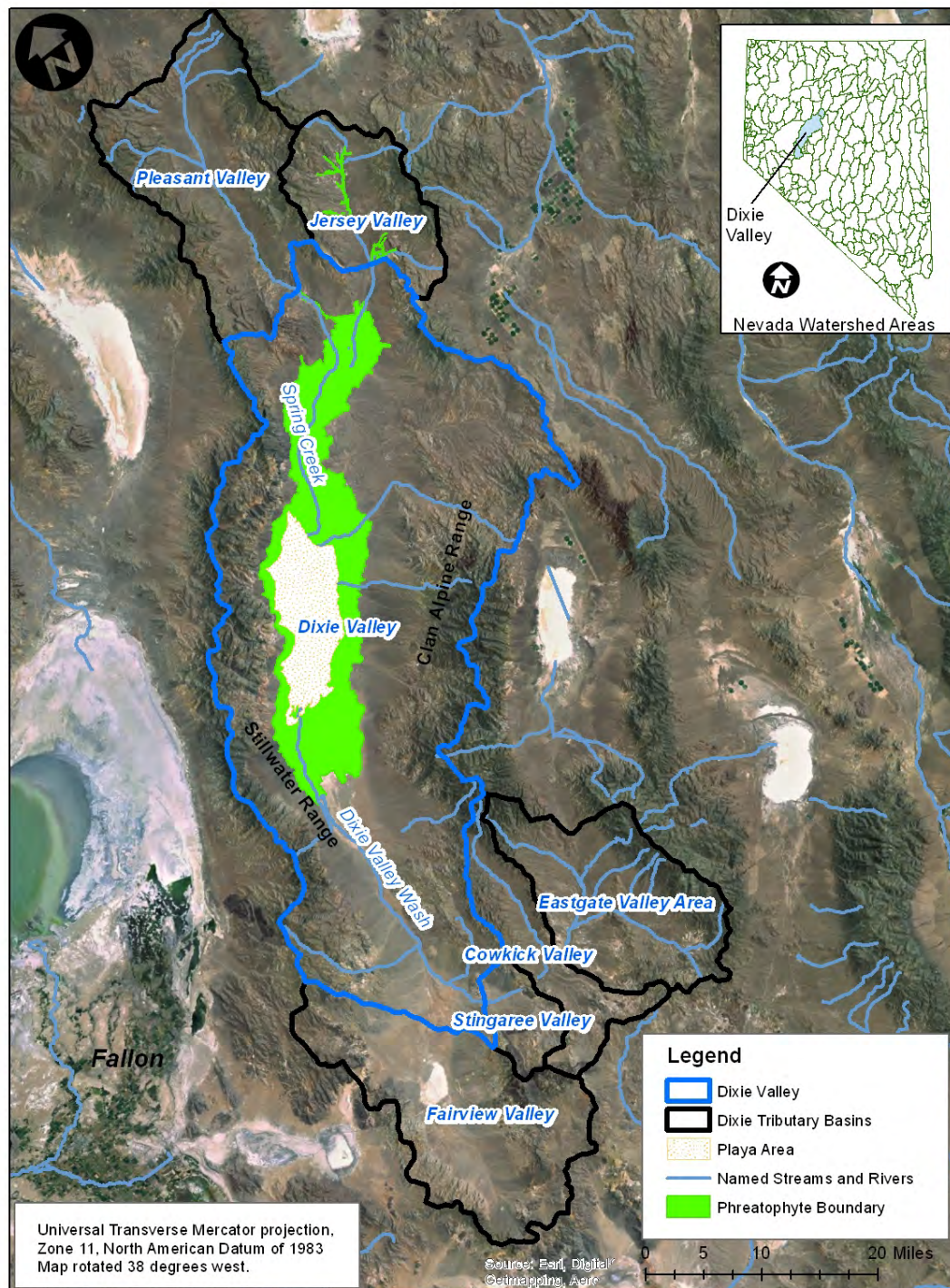


# Primary Study Objectives

- Quantify & Update Perennial Yield Estimates
  - Discharge Methods (Playa & Phreatophyte areas)
- Quantify Existing Uses & Water Rights
- GW Modeling
  - Steady State/Transient State & Pumping Simulations to assess impacts
- Commissioner Workshop: 7/13/16
- CWSD Contract for ongoing monitoring
  - Water level monitoring
  - High altitude precip gage maintenance
  - Weather station maintenance









# Dixie water rights availability

TABLE 5. UNDERGROUND WATER POTENTIALLY AVAILABLE FOR APPROPRIATION UNDER CHURCHILL APPLICATIONS

COMMITTED CONSUMPTIVE UG RIGHTS / VALLEY	LOW DUTY	MED DUTY	HIGH DUTY
Table 1. Dixie Valley (#128):	6,823	9,292	11,166
Table 2. Fairview Valley (#124):	27	39	62
Table 2. Jersey Valley (#132):	27	27	54
Total Committed Duty (#128, 124, 132):	6,878	9,359	11,281
UG Available for Appropriation:	<b>16,122</b>	<b>13,641</b>	<b>11,719</b>
Estimated Dixie/Fairview/Jersey Perennial Yield (afa) <sup>1</sup> :	<b>23,000</b>		

<sup>1</sup> InterFlow Hydrology, April, 2016, Simulation of Groundwater Movement & Groundwater Development Scenarios in

# QUESTIONS





6

## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** River Wranglers

Name  
P.O. Box 1612

Address  
Dayton Lyon

City NV County 89403

State rebecca@riverwranglers.org Zip Code 775.386.2743

Email Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Rebecca Feldermann, Executive Director

Name  
Same as above

Address

City  County

State  Zip Code

Email Telephone #

**PROJECT NAME:** Conserve the Carson River Workdays and Carson River watershed field days



**PROJECT LOCATION/ADDRESS:**

Multiple locations throughout the Carson River watershed

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See attached

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See attached

**TOTAL ESTIMATED PROJECT COST:** 100,000

**AMOUNT REQUESTED FROM CWSD:** 30,000

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

See attached

**ESTIMATED DATE PROJECT TO BEGIN:** July 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** June 30, 2025

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.  
N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.  
See attached

SIGNED: Rebecca L. Feldermann

NAME: Rebecca L. Feldermann

TITLE: Executive Director

DATE: 1/26/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



---

## CARSON WATER SUBCONSERVANCY DISTRICT

### REQUEST FOR FUNDING FY 2024-25

---

**APPLICANT:** River Wranglers

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

River Wranglers continues to host Conserve the Carson River Workdays (CCRWD) throughout the Carson River watershed. Over the past two years we have diversified our program to include various field days aligned with Next Generation Science Standards (NGSS) with different grades, field days with the Washoe Tribe, and field days with Home School groups to increase our reach throughout the watershed. Our workday model primarily remains the same but due to newer guidelines, restrictions, financial concerns in the different districts, and rapid teacher turnover, we have been required to occasionally make adjustments in order to continue this vital program.

For CCRWDs, as allowed, we continue to go into high school Future Farmers of America (FFA) and science classrooms to teach high school students the necessary information and skills so that they in turn can teach elementary students at the river in a combined workday. The high school students are trained in activities that teach children about our watershed, the importance of clean water, the water cycle, and non-point source pollution. At the river, they become “mentors” to the younger students, spending the day with them, leading them through the activities. For the past two years, this has been our model for students in Churchill County, as the teachers are incredibly supportive and receptive. If high school students are unable to participate, we still provide an enriching workday with the assistance of professional volunteers from many of our partners including CWSD, NDEP, CCP&ROS, NDOW, UNR, TNC, RCI, as well as trained community volunteers. In addition to the educational stations, we partner with conservation districts to include river work projects that the students complete together. After workdays, elementary students are visited by River Wranglers staff to do a “wrap-up,” which reinforces the messages they learned at the river. We once again discuss non-point source pollution, the geography and features of the watershed with the utilization of the Carson River watershed map, and the importance of the river and watershed to their own lives, while also reinforcing the concept of stewardship. We do a pre- and post-test with all involved students to



track their increase in knowledge about the watershed and non-point source pollution to gauge the effectiveness of our programs.

Over the past two years, we have expanded our program to include a variety of field days to increase our reach to students that otherwise may not receive the environmental education we provide. With younger students, we provide ecological play-based activities allowing students to engage in the outdoors while learning about the ecosystem. At Seeliger Elementary School, we started a pilot program that focuses on Seasonal Changes (a first grade standard). At 3-4 different seasonal points throughout the school year, River Wranglers provides a discussion on that particular season's changes with the different first grade classes, takes them to a specific site on-campus at the same time during each season and observes the changes, then guides them in documenting their findings in their own scientific journals. We also opened our program to Home School Groups, which allows us to reach a population of students that have never been given the opportunity participate in our program. To date, we have reached home school students in Douglas, Lyon, and Carson City.

In partnership with the Washoe Tribe Native TANF Program, the Washoe Environmental Protection Department, the Washoe Tribe, and CWSD, we are fortunate to be allowed to host the first ever Wá'áshému Day on tribal lands. This event included multiple interactive environmental educational stations that tribal students cycled through. River Wranglers is committed to maintaining a good relationship and continuing to work with the Washoe and Fallon-Paiute Shoshone Tribes in providing outdoor education to their students and communities through events and special tribal field days.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

River Wranglers wants students to value the Carson River watershed and recognize their place and role in it. We strive to improve students' physical and mental health by hosting educational activities outdoors. Being in the outdoors and along the banks of the river allows students to get physical activity and breathe in the fresh Nevada desert air. Students will gain self-confidence in their ability to recognize and identify geographical features of their watershed and flora and fauna within their own backyard. We want them to understand that their actions have impacts, and that even as children, there are things they can do to help with the health of the watershed. With this knowledge of how to be good stewards of their environment, students will develop self-confidence in their interactions with their environment and

community. High school students participating in our program as mentors learn responsibility, public speaking, and teaching younger students the subject materials while gaining leadership skills. Ultimately, our overarching goal is to bring awareness and action to nonpoint source pollution issues in our watershed. By reaching children at this impressionable age, we hope to help them recognize their relationship to the watershed and the river, and to make them care for and be aware for the duration of their lives. Furthermore, our hope is that they share this awareness with their parents, families, and other members of the community.

Our goals include reaching every student in the watershed sometime during their K-12 years. We work with many of the schools in the Carson River watershed in a given year; in some counties we work with every school. We strive to reach schools that have not been reached in the past or have not participated in events since the pandemic. When River Wranglers staff go back into the elementary classrooms for wrap-ups, we are greeted with enthusiasm, excitement, and thank you notes expressing appreciation for all the things they learned and often their favorite part of the workday and what station they really enjoyed. This could be learning about the journey water takes through the water cycle, beaver adaptations, why it is important to pick up their dog's poop, helping be good stewards by picking up trash planting pollinator plants, wrapping trees for beaver protection, learning about flora and fauna in their own backyard, or an overall excitement to be outside and at the river. It is especially important for students to participate in these workdays or field days as we have found that many students have not even been to the Carson River.

Years later, when we see the students again in high school or out in the community, they remember their CCRWD or field day. They remember learning about their watershed and visiting the river, and they remember that they are stewards of the environment.

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

River Wranglers is currently involved in a 319 grant through NDEP for environmental education. This cycle extends through December 2024, though we anticipate the funds to be exhausted before the end date. The match portion requested of this grant is covered by the current CWSD grant. We recently received an award from the Nevada Outdoor Education and Recreation Grant Program (NOER) which began January 1, 2024 and extends through January 31, 2025. NOER has requested matched funds of \$45,450 without specification of where the match

comes from (CWSD, In-kind volunteer match, school transportation, etc.). Our intention is to use any award we may receive from CWSD towards this match.

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

The \$30,000 would be utilized to provide workdays and field days in the four main counties: Douglas, Carson, Lyon, and Churchill Counties. \$28,000 is intended for the program and \$2,000 for administrative costs/supplies/mileage associated with the project. We thank CWSD for their continued support in this important project. We appreciate the chance to partner with so many other applicants and CWSD to do our work. We couldn't do the work without you, and we appreciate your guidance and funding to continue.





7

## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** Alpine Watershed Group

Name  
PO Box 296

Address  
Markleeville Alpine

City CA County 96120

State Zip Code

awg.kimra@gmail.com (530) 694-2327

Email Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

N/A

Name

Address

City  County

State  Zip Code

Email Telephone #

**PROJECT NAME:** Upper Carson River Watershed Programs

**PROJECT LOCATION/ADDRESS:**

Service area - Alpine County

AWG office - 50 Diamond Valley Road in Woodfords, CA

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

See Project Description attached.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

See Project Goals and Benefits attached.

**TOTAL ESTIMATED PROJECT COST:** \$496,500

**AMOUNT REQUESTED FROM CWSD:** \$30,000

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

See Source of Other Funds attached.

**ESTIMATED DATE PROJECT TO BEGIN:** July 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** June 30, 2025

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

While large-scale restoration projects with other funding sources require various permits, no permits are required for AWG's Upper Carson River Watershed Programs as described in this application.

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See Other Information attached.

SIGNED:  \_\_\_\_\_

NAME: Kimra D. McAfee

TITLE: Executive Director

DATE: 1/25/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



**CARSON WATER SUBCONSERVANCY DISTRICT**  
**Fiscal Year 2024-25**  
**Alpine Watershed Group Funding Request for Upper Carson River Watershed Programs**  
**Additional Sheets**

**PROJECT DESCRIPTION:**

Alpine Watershed Group (AWG) seeks funding for the fiscal year 2024-25 from the Carson Water Subconservancy District for the coordination of its Upper Carson River watershed programs. AWG's mission is to protect, conserve, and restore the watersheds of Alpine County by promoting sustainable community and science-based collaborative solutions. For 23 years, AWG has organized volunteers and inspired widespread participation to address water quality monitoring and restoration needs in Alpine County. To further the stewardship of our county's natural resources, our organization has developed diverse partnerships around watershed issues. As the nonprofit environmental organization for the Carson River headwaters (see attached map), our positive impacts extend downstream, where the Carson River flows into Northern Nevada.

Through this project, AWG staff will: 1) involve local citizens in watershed stewardship; 2) plan and implement priority watershed monitoring and restoration activities; 3) recruit diverse stakeholders and strengthen community partnerships; and 4) support local watershed education and community outreach.

Alpine County attracts thousands of visitors each year from Nevada, California, and beyond. It is a popular recreation area for fishing, hiking and backpacking, river-running, and winter sports, and it is particularly well-loved by outdoor enthusiasts who reside in adjoining Nevada. The recreational offerings and magnificent nature in Alpine County depend on the clean water and riparian resources that AWG helps to protect. While it is one of AWG's goals to expand involvement in the watershed group by Nevadans, we already have volunteers and participating stakeholders from throughout Northern Nevada. Our active participation in CWSD through its forums and Carson River Coalition working groups, as well as our contributions to newsletters and e-blasts, allow us to help educate residents of the other counties in the watershed about where the water originates and the programs AWG carries out—programs that protect and improve water quality for human use and habitat values both in Alpine County and downstream.

**PROJECT GOALS AND BENEFITS:**

We have a community that values and acts to protect, conserve, and celebrate the healthy, resilient watersheds of Alpine County. Our organization's goals are to broaden this support and put it to work effectively.

- Goal 1: Alpine County's watersheds and the waters that flow through them are protected, conserved, and restored.
- Goal 2: We have increased community awareness and participation in watershed stewardship.
- Goal 3: We have increased organizational capacity and planned for sustainability.

AWG's monitoring, restoration, and education programs benefit the watershed not only in Alpine County, where the Carson River headwaters are located, but also have positive impacts downstream. Protecting and enhancing the headwaters is a critical start to maintaining healthy water quality conditions throughout the watershed's region. Our programs are consistent with the *Carson River Watershed Adaptive Stewardship Plan* and meet the following funding criteria:

- Provide regional benefits within the Carson River watershed

- Improve water quality
- Prevent further stream bank erosion in the long term
- Reduce flooding along the Carson River
- Improve the administration and management of river and stream systems
- Assist water users and the general public in understanding current water issues

Our work to restore and rehabilitate river function is also consistent with the *Carson River Regional Floodplain Management Plan* as these actions help to maintain the waterway in a condition to help ensure unimpeded flows during high storm water events. There continues to be heightened concern about debris flow hazards because of the 2021 Tamarack Fire, as evidenced by the debris flow in August 2022 that shut down Highway 89 and buried the Markleeville Creek bridge replacement project materials stored at Heritage Park.

In spanning two states, the Carson River watershed presents unique opportunities and challenges. Upper Carson River watershed management planning is of concern to the Nevada Department of Environmental Protection, but the Alpine County portion of the watershed depends on the State of California and the Lahontan Regional Water Quality Control Board for funding eligibility from the US Environmental Protection Agency (EPA) 319 Grant Program. For many years AWG worked closely with Regional Board staff on community engagement and contributions to the *West Fork Carson River Vision Plan*; on October 31, 2023, the Regional Board adopted a resolution supporting the plan and directing staff to forward it to US EPA, officially opening the door for 319 Grant Program funding for the Upper West Fork Carson River watershed. AWG continues to push the Regional Board to elevate the East Fork Carson River to the same level of watershed planning as the West Fork Carson River.

However, to compensate for a lack of detailed studies and associated list of prioritized projects in the *West Fork Carson River Vision Plan*, AWG has been working with CWSD staff on strategies to address these data gaps. AWG applied for and received funding from California's 319 program to complete a geomorphological assessment, sediment transport planning model, and project prioritization plan for the Upper West Fork Carson River watershed in 2024-2025, with CWSD providing the required 25% match. In December 2023, AWG submitted a similar application for the Upper East Fork Carson River watershed, with the required match anticipated to come from CWSD's future Conserve Nevada Grant application to complete a similar assessment and modeling for the Nevada portion of the watershed. Together AWG and CWSD's projects would yield the desired comprehensive assessment and plan.

As a very small nonprofit organization, our challenge in 2024-25 is to continue all of AWG's usual programs and ongoing projects while continuing to serve as a community leader in the wake of the Tamarack Fire. Because of the strong relationships we have built with public land managers over the last two decades, AWG is uniquely qualified to be the catalyst needed for Upper Carson River watershed recovery from the Tamarack Fire. Since the fire, AWG has been successful at garnering support for post-fire work, including data collection, community outreach and education, agency collaboration, and volunteer restoration projects, from several funders, including Bently Foundation, National Fish and Wildlife Foundation, and Trout Unlimited - Sagebrush Chapter. The goal of healing the watershed will take years and even decades to achieve, but these early actions are laying the foundation. We see the scar of the 2015 Washington Fire, and we are committed to making sure that what is needed to help heal the Tamarack Fire burn area will be done. CWSD funding in 2024-25 will serve a critical role in helping to leverage more resources for post-Tamarack Fire restoration needs. In addition, for 2025-27, AWG is being considered for Regional Forest and Fire Capacity Program (RFFCP) Round 3 funding from the Sierra Nevada Conservancy; this funding would support AWG and Alpine County in continuing to increase capacity to address forest health, fire recovery, and resilience in Alpine County.

Following is a summary of AWG's monitoring, restoration, and education program plans and projects in the coming year, in addition to the West Fork Carson River Prioritization Project described above.

### Monitoring

- Continuing our long-standing river monitor program, collecting data at eight sites in the Carson River watershed four times/year
- Conducting Year 6 of harmful algal bloom (HAB) monitoring in Alpine County, in partnership with the Lahontan Regional Water Quality Control Board, and coordinating with the Alpine County Public Health Officer on public outreach; our long-term goal in continuing to build the dataset on HABs is to learn more about the causes so that we can eventually explore mitigation or control strategies to manage these water bodies to potentially prevent future toxin releases
- Ongoing coordination with Markleeville Water Company to conduct vegetation and photo monitoring of the work areas from the Musser and Jarvis drainage post-fire restoration workdays on November 19–21, 2021 (installing wattles, felling and chinking trees, and spreading native seed), including development of an auxiliary report that will pave the way for adaptive management and future restoration work
- Conduct first year of seedling survivability survey of trees planted by volunteers in burned areas of Turtle Rock Park in spring and fall 2023 to inventory survival rates
- Continue partnering with California State Parks to monitor and address invasive species in and around Grover Hot Springs State Park meadow, especially those resulting from post-fire response
- Entering data from water quality monitoring into the California Environmental Data Exchange Network (CEDEN), creating data summaries and reports for the public and Alpine County, and analyzing data trends over time to identify priority projects
- Ongoing recruitment of new volunteers for AWG's monitoring programs
- Developing our GIS database for the county's watersheds

### Restoration

#### **Faith Valley Project** – American Rivers lead, 2017 to 2024

The overarching goal of this project is to improve hydrologic and ecosystem processes in Faith Valley meadow located in the headwaters of the West Fork Carson River. AWG's involvement includes monitoring and community outreach.

**Update:** *In 2023 contractors implemented road repairs and installed the remaining beaver dam analogs (BDAs), with AWG volunteer help on Creek Day 2023. Adaptive management and monitoring will be continued through 2024 as funding allows.*

#### **Hope Valley Restoration & Aquatic Habitat Enhancement Project** – 2016 to 2024

This project stabilizes approximately 450 feet of eroding banks along the West Fork Carson River just downstream of the Highway 88 bridge on California Department of Fish & Wildlife (CDFW) land. The first site is a new project on the first meander downstream of the bridge; the second site is the 2015 American Rivers project site downstream of the first site, where adjustments increased bank stability.

**Update:** *Construction was completed in fall 2020, and the annual monitoring reports are available on the project webpage: <https://www.alpinewatershedgroup.org/hope-valley-restoration-and-aquatic>. Funding from CDFW via the National Fish & Wildlife Foundation, funded by the State Water Board as part of a settlement of a Water Board enforcement action for Kirkwood Resort, covers monitoring and adaptive management through 2024.*



### **Markleeville Creek Restoration Project – 2005 to 2029**

This project will re-establish the natural form and function of Markleeville Creek through the site of the former US Forest Service Guard Station. The project will re-create the streamside habitat by removing the floodwall and re-vegetating the floodplain. Markleeville Public Utility District (MPUD) is concurrently working on an infrastructure upgrade project that includes removing manholes from the floodplain and upgrading the sewer line that runs under the creek. Our community hopes that future funding will allow for development of public access amenities, such as a public restroom.

**Update:** *AWG secured funding for final design and a small portion of the implementation costs from California's Integrated Regional Water Management program. AWG helped facilitate Alpine County securing the remainder of the implementation funding by having the project's revegetation serve as mitigation for Caltrans' Markleeville Bridge replacement project (construction in 2021-2024). Construction of the floodplain restoration project is anticipated in 2024 or 2025, pending MPUD receiving a State Revolving Fund grant for the sewer upgrade project implementation which must precede the floodplain restoration project implementation.*

### **West Fork Carson River Fuels Reduction, Aspen, and Meadow Restoration Project –** National Forest Foundation lead, 2021 to 2024

The National Forest Foundation, in partnership with the Carson Ranger District of the Humboldt-Toiyabe National Forest, began project implementation in 2022, removing conifers in the Hope Valley area. AWG's involvement includes aspen monitoring and community outreach.

#### Education and Community Outreach

- Hosting watershed group meetings
- Providing administrative support for the newly-established Forest Health Community Working Group (FHCWG) meetings and activities, including public meetings and field tours
- Ongoing education of community members about water quality to encourage stewardship, working especially closely with Alpine County Health & Human Services to communicate about harmful algal blooms
- Engaging community members and visitors through our annual Creek Day workday, and expanding volunteer opportunities through other events such as Adopt-A-Highway cleanups; volunteers who assist with restoration projects have the opportunity to help improve critical wildlife habitat while also learning about the connection between watershed conservation activities and water quality; volunteers also learn simple restoration techniques that they can implement on their own, extending the impact beyond our workday and immediate community
- Engaging volunteers to complete small on-the-ground post-fire restoration projects identified by collaborating with agencies; projects may include seeding and revegetating banks and slopes to help reduce erosion, improve water quality, and enhance both instream and riparian habitat; and removing invasive species to prevent their establishment and spread, which benefits wildlife habitat and benefits other ecological processes, such as biodiversity
- Building a stronger partnership with the Hung-A-Lel-Ti (Woodfords) community of the federally-recognized Washoe Tribe of NV and CA, as well as the Washoe Environmental Protection Department, including participating in planning for the second annual Washoe Mountain Gathering
- Participating in Lahontan Cutthroat Trout Carson Recovery Implementation Team meetings and helping to ensure that agency studies and plans are communicated to stakeholders; this includes participation in the newly-formed working group focused on community engagement and fisheries collaboration
- Participating in and providing support and leadership for the East Fork Carson Hot Springs planning effort facilitated by the National Park Service Rivers, Trails, and

Conservation Assistance Program (whose technical support was garnered through an application AWG drafted for Carson Ranger District staff)

- Continuing to advance sustainable recreation in Alpine County through agency collaboration, community discussions, and utilizing the outreach tools of partners including Carson River Coalition, Eastern Sierra Sustainable Recreation Partnership, and Sierra Nevada Alliance; continuing to work with partners and agencies on specific issues such as graffiti and litter
- Expanding environmental education programs with Alpine County schools and working to reach Alpine County youth when they move on to Douglas High School, including leading a school-wide field trip for Carson River Snapshot Day; pending funding from the Whale Tail Grant program, AWG will lead a series of two classroom lessons followed by a field trip each spring and fall through 2025
- Expanding watershed awareness by ongoing tabling presence at events throughout the region
- Continuing to be creative on how to expand watershed awareness through virtual tools such as social media and Zoom options for watershed group meetings

#### **SOURCE OF OTHER FUNDS:**

Alpine County Tobacco Control Program (anticipated) - \$5,000

American Rivers - \$3,500

California Department of Fish & Wildlife Kirkwood Settlement - \$50,000\*

California Integrated Regional Water Management - \$25,000

Carson Water Subconservancy District (West Fork Carson River Prioritization Project) - \$75,000

The Keith Campbell Foundation for the Environment - \$17,000

National Forest Foundation - \$10,000

Sierra Nevada Conservancy - \$12,000

State Water Board Nonpoint Source 319 Grant Program - \$250,000\*

Trout Unlimited - Sagebrush Chapter - \$4,000

Whale Tail Grant (pending) - \$15,000

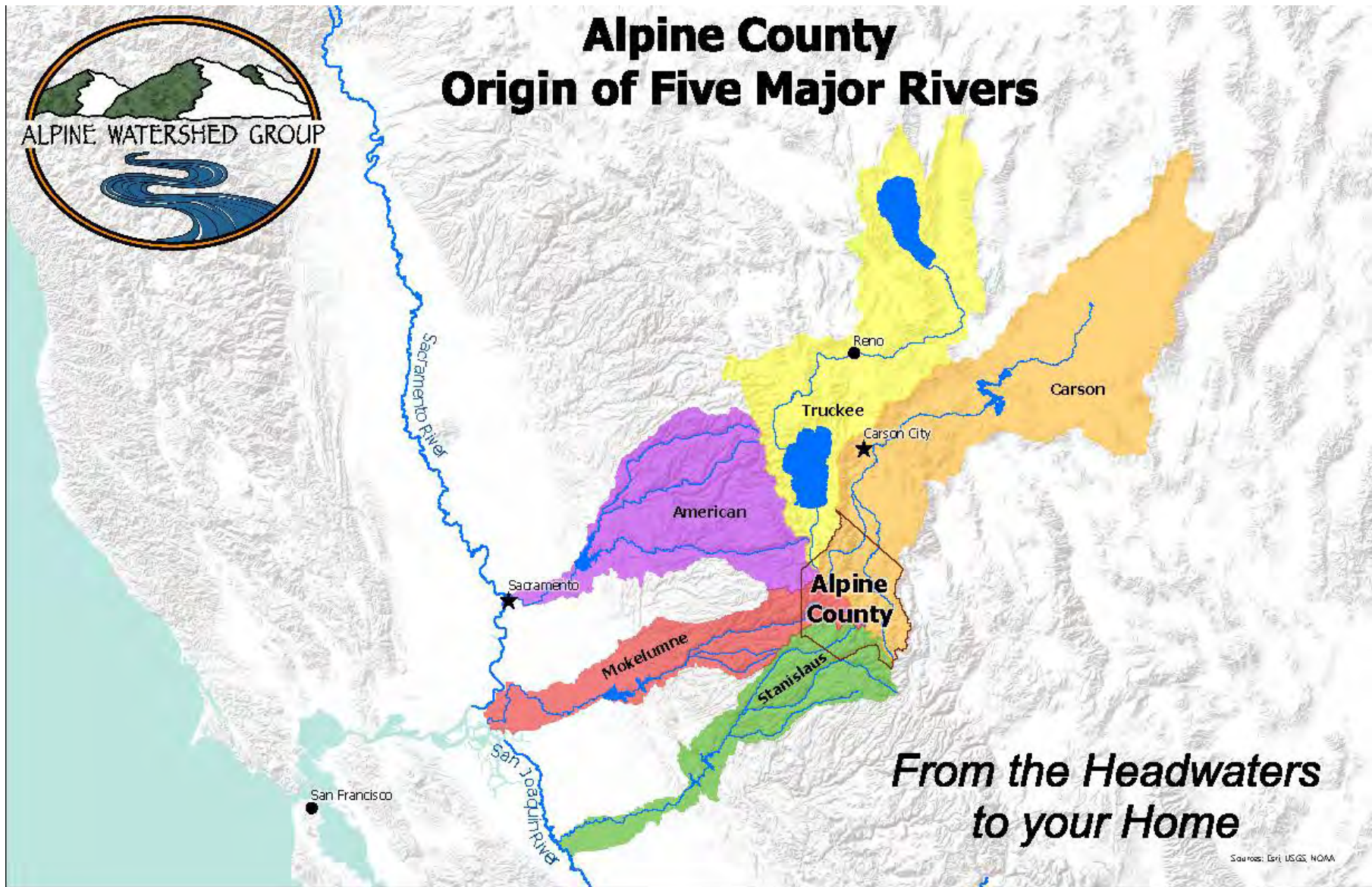
*\*Majority of funds are pass-through funds for consultant services*

#### **OTHER INFORMATION:**

In 2023 AWG's 265 volunteers contributed 705 hours on water quality sampling, large community workdays for Creek Day and tree planting workdays in burned areas, highway cleanups, recycling and outreach at Death Ride, and Hope Valley project maintenance tasks. Our staff monitored seven river miles and 70 acres applying a variety of monitoring techniques including vegetation monitoring, photo points, and seedling survivability surveys. Our staff also led a field trip to Hope Valley for 55 students from Diamond Valley School for Snapshot Day. AWG participated in 20 community events, including tabling at the new Market at Markleeville and participating in South Lake Tahoe and Washoe Earth Day events. Our capacity was greatly expanded by adding a Forest Health Coordinator to our staff and by hosting two California Climate Action Corps Fellows, who are helping Alpine County address the effects of climate and improve wildfire resiliency. Last year AWG was presented with the 2022 Volunteers Program Citizen Stewardship and Partnerships Award, bestowed by the US Forest Service in recognition of public engagement and collaboration to accomplish the Forest Service mission of "Caring for the Land and Serving People" through efforts to restore the watershed and forest. CWSD support helps our small, community-based organization build the capacity of Alpine County to address the most critical environmental concerns by utilizing local expertise to monitor changes, lead projects to improve water quality, and educate residents and visitors on water issues. Thank you!



## Alpine County Origin of Five Major Rivers







**COUNTY OF ALPINE**  
**Board of Supervisors**

February 7, 2024

Carson Water Subconservancy District  
777 E. William St., Suite 209  
Carson City, NV 89701

Attn: Edwin James, General Manager

Re: Letter of Support for Alpine Watershed Group's Funding Request  
for "Upper Carson River Watershed Programs" for Fiscal Year 2024-25

Dear Mr. James,

This letter serves as an official letter of support on behalf of the County of Alpine in the State of California. The County of Alpine hereby supports the Alpine Watershed Group's (AWG) request for funding from the Carson Water Subconservancy District in the amount of \$30,000 for "Upper Carson River Watershed Programs."

Alpine County has a very small county staff, and AWG is a key partner in protecting, conserving, and restoring the Upper Carson River watershed in Alpine County. Over the past two decades, AWG has built a strong reputation because of its track record working with diverse partners and community volunteers to move forward projects. Each year funding from CWSD helps to leverage other funding sources by providing matching funds that strengthen AWG's grant applications.

We understand that this funding would support AWG's program staffing and monitoring, restoration, and community outreach and education supplies. It will enable AWG to continue to provide regional collaboration and watershed benefits within the Upper Carson River watershed. The funds are especially critical for AWG's monitoring programs, both the River Monitoring program (a community-science based program that has continuously collected water quality data at eight sites throughout the Upper Carson River watershed since 2004) and the harmful algal bloom (HAB) monitoring program. This funding also helps to support AWG's annual Creek Day workday, involving community members in hands-on restoration projects, as well as other community workdays, such as the volunteer tree planting events AWG hosted in 2022 and 2023 in areas burned by the Tamarack Fire.

Therefore, the Alpine County Board of Supervisors respectfully requests that the Carson Water Subconservancy District approve AWG's \$30,000 funding request.

Sincerely,

*Terry Woodrow*

Terry Woodrow (Feb 8, 2024 11:24 PST)

Terry Woodrow, Chair  
Alpine County Board of Supervisors






# Alpine Watershed Group Support Letter

Final Audit Report

2024-02-08

Created:	2024-02-08
By:	TEOLA TREMAYNE. (ttremayne@alpinecountyca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAzSCDrivP5ry43X7qyE5HoZ3YOJUglsDG

## "Alpine Watershed Group Support Letter" History

-  Document created by TEOLA TREMAYNE. (ttremayne@alpinecountyca.gov)  
2024-02-08 - 6:46:15 PM GMT- IP address: 192.182.127.194
-  Document emailed to Terry Woodrow (twoodrow@alpinecountyca.gov) for signature  
2024-02-08 - 6:46:19 PM GMT
-  Email viewed by Terry Woodrow (twoodrow@alpinecountyca.gov)  
2024-02-08 - 7:24:14 PM GMT- IP address: 172.9.93.47
-  Document e-signed by Terry Woodrow (twoodrow@alpinecountyca.gov)  
Signature Date: 2024-02-08 - 7:24:30 PM GMT - Time Source: server- IP address: 172.9.93.47
-  Agreement completed.  
2024-02-08 - 7:24:30 PM GMT



Adobe Acrobat Sign



## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** Alpine County, California

Name  
JT Chevallier

Address  
40 Diamond Valley Rd, Alpine

City Markleeville County 96120

State \_\_\_\_\_ Zip Code \_\_\_\_\_

jchevallier@alpinecountyca.gov - 530-721-1339

Email Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City \_\_\_\_\_ County \_\_\_\_\_

\_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_

\_\_\_\_\_  
Email Telephone #

**PROJECT NAME:** Alpine County Angling Economic Analysis



**PROJECT LOCATION/ADDRESS:**

Great Alpine County - East & West Carson Watersheds

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

The goal of this project is to define the economic impact of angling while preserving the county's natural heritage, by way of an in-depth Economic Analysis of Angling in Alpine County. (see attached)

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

This project will assess the economic impact of angling identify strategies for improving access, optimizing planting practices, identifying priority focus areas, and implementing habitat improvement.

**TOTAL ESTIMATED PROJECT COST:** \$100,000

**AMOUNT REQUESTED FROM CWSD:** \$75,000

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

Alpine County In-Kind Matching Funds - \$25,000

**ESTIMATED DATE PROJECT TO BEGIN:** 7/01/2024

**ESTIMATED TIME TO COMPLETE PROJECT:** December 31, 2025

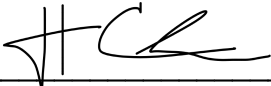
(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

See attached

SIGNED:  \_\_\_\_\_

NAME: JT Chevallier

TITLE: Economic Development Director

DATE: 1-10-2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



## **Economic Analysis of Angling in Alpine County**

**Project Description:** Alpine County, located amidst the stunning Alpine landscapes, boasts a rich diversity of aquatic ecosystems, making it a prime destination for anglers seeking pristine fishing experiences. To harness the economic potential of angling while preserving the county's natural heritage, we propose an in-depth Economic Analysis of Angling in Alpine County with a focus on the East and West Carson River Watersheds. This project aims to comprehensively assess the economic impact of angling and formulate strategies for sustainable fisheries enhancement, with a specific focus on improving access, optimizing fish planting practices, identifying priority focus areas, and implementing habitat improvement measures.

### **Project Objectives:**

#### **1. Assessing Economic Significance:**

- **Objective:** Quantify the economic contributions of angling to Alpine County's economy, encompassing both direct and indirect economic impacts.
- **Methodology:** Conduct surveys, collect data on angler expenditures, and analyze the ripple effects on local businesses, tourism, and job creation.
- **Outcome:** A clear understanding of the economic significance of angling, serving as a baseline for further analysis.

#### **2. Access Enhancement:**

- **Objective:** Improve access to fishing spots, ensuring that anglers can easily and safely reach their desired locations.
- **Methodology:** Identify existing access points, evaluate their conditions, and prioritize areas for enhancement.
- **Outcome:** A strategic plan for enhancing access, including recommendations for infrastructure development and maintenance.

#### **3. Fish Planting Optimization:**

- **Objective:** Optimize fish stocking practices to maintain healthy fish populations and align them with angler preferences.
- **Methodology:** Analyze historical fish stocking data, angler preferences, and species diversity to determine the most effective stocking strategies.
- **Outcome:** A comprehensive plan for fish planting, addressing species selection, stocking frequencies, and locations.



#### 4. Focus Area Identification:

- **Objective:** Identify and designate specific areas for various types of angling experiences, catering to diverse angler interests.
- **Methodology:** Analyze angling trends, preferences, and ecological suitability to categorize regions for focused angling activities.
- **Outcome:** A map of designated focus areas with recommendations for the type of angling experience to promote in each area.

#### 5. Habitat Improvement Strategies:

- **Objective:** Implement habitat improvement measures including the East and West Carson Watersheds to ensure the long-term health of aquatic ecosystems and enhance angler experiences.
- **Methodology:** Conduct habitat assessments, prioritize areas for restoration, and develop habitat improvement strategies.
- **Outcome:** A habitat improvement plan, detailing recommended restoration projects, erosion control measures, and invasive species management.

#### 6. Balancing Conservation and Economic Development:

- **Objective:** Develop strategies that strike a balance between economic development and conservation efforts.
- **Methodology:** Assess existing fishing regulations, consult with local stakeholders, and identify opportunities to promote sustainable angling practices.
- **Outcome:** Recommendations for regulatory adjustments and conservation initiatives that support both economic growth and ecological preservation.

By undertaking this Economic Analysis of Angling in Alpine County, we aim to empower the county's decision-makers with data-driven insights and actionable strategies. This project not only seeks to boost the local economy but also underscores the importance of responsible environmental stewardship. Alpine County can set an example for sustainable, nature-based economic development, ensuring that future generations can enjoy the natural beauty and recreational opportunities it offers.

<b>CWSD Pro-Forma Budget</b>			
<b>Alpine County Economic Analysis</b>			
<b>A. PERSONNEL SERVICES</b>			
<b>Project Role</b>	<b>Hours</b>	<b>Rate</b>	<b>CDFW Requested Amount</b>
<i>Alpine County Economic Development Director</i>	60.00	\$ 100.00	\$ 6,000.00
<i>Finance Staff</i>	20.00	\$ 50.00	\$ 1,000.00
	0.00	\$ -	\$ -
	0.00	\$ -	\$ -
<i>&lt;Insert or delete line items as needed&gt;</i>			\$ -
<b>Subtotal Personnel Services</b>			<b>\$ 7,000.00</b>
<b>SUBTOTAL A: PERSONNEL SERVICES</b>			<b>\$ 7,000.00</b>
<b>B. GENERAL OPERATING EXPENSES</b>			
<i>General Expenses (postage, office supplies, NOT IN Indirect Charges)</i>			\$ -
<i>Field Supplies</i>			\$ 5,000.00
<i>Permit Fees</i>			\$ -
<i>Travel</i>			\$ 5,000.00
			\$ -
<i>&lt;Insert or delete line items as needed&gt;</i>			
<b>SUBTOTAL B: OPERATING EXPENSES: GENERAL</b>			<b>\$ 10,000.00</b>
<b>C. SUBCONTRACTORS</b>			
<b>Subcontractor or Role</b>			<b>Total Subcontractor Cost</b>
<i>Subcontractor 1 Consultant for Economic Analysis</i>	\$83,000		83,000

<b>SUBTOTAL C: OPERATING EXPENSES: SUBCONTRACTORS</b>	<i>83,000</i>		<i>83,000</i>
<b>F. GRAND TOTAL</b>			<b>\$ 100,000.00</b>

<b>G. SECURED COST SHARE (CASH + IN-KIND)</b>	<b>\$ 25,000.00</b>
<b>H. UNSECURED BUDGET REQUESTED</b>	<b>\$ 75,000.00</b>
<b>I. TOTAL PROJECT COST</b>	<b>\$ 100,000.00</b>





9

## CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:**

Storey County Public Works Department

Name

P.O. Box 435

Address

Virginia City

Storey County

City

County

Nevada

89440

State

Zip Code

Jwierzicki@storeycounty.org

775-847-0958

Email

Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Name

Address

City

County

State

Zip Code

Email

Telephone #

**PROJECT NAME:** Six Mile Canyon Culverts

**PROJECT LOCATION/ADDRESS:**

Six Mile Canyon Road

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

Storey County is requesting financial assistance with the replacement of existing culverts on Six Mile Canyon Road. See attached description.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

Please see Project Justification, attached.

**TOTAL ESTIMATED PROJECT COST:** \$60,000

**AMOUNT REQUESTED FROM CWSD:** \$36,500

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

Storey County General Fund, fiscal year 23/24

**ESTIMATED DATE PROJECT TO BEGIN:** late summer/early fall 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** 3 weeks

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.

Storey County floodplain permit  
NDEP oversight for Superfund area

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

Please see attached Finances discussion and attached photographs.

SIGNED: Jason Wierzbicki

NAME: Jason Wierzbicki

TITLE: Director

DATE: 1/24/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*





## STOREY COUNTY PUBLIC WORKS

100 Toll Road

P.O. Box 435 Virginia City, Nevada 89440

Phone (775) 847-0958 Fax (775) 847-0947

*[mnorthan@storeycounty.org](mailto:mnorthan@storeycounty.org)*

### Six Mile Canyon Culvert Project

**Project Description:** Storey County is requesting financial assistance with the replacement of existing culverts along Six Mile Canyon Road.

Six Mile Canyon is the main drainage from Virginia City downstream to the Dayton Valley area and eventually the Carson River. The canyon is steep and narrow and contains a roadway (Six Mile Canyon Road) that is critical infrastructure to connect the Mark Twain neighborhood of Storey County to Virginia City. Many Dayton Valley residents also utilize this roadway for a faster route to the Reno area. When storm events occur, the flooding of the canyon causes erosion and overtopping of the existing culverts, leaving heavy debris on the roadway and causing undercutting of banks and the roadway itself. This then causes the roadway to be closed for repairs, which then impacts emergency response and school transportation issues, along with eliminating the route to Reno from the Dayton Valley area.

With assistance from the Carson Water Subconservancy District (CWSD), Storey County recently completed the Virginia City/Six Mile Area Drainage Master Plan (ADMP). This plan identified the runoff occurring within Virginia City and the impacts such runoff has on Six Mile Canyon. Project 4 identified in the VC/Six Mile ADMP discusses necessary improvements to culverts and roadside channels in Six Mile Canyon.

Storey County began the replacement of a one culvert in the Fall of 2023. Damage to the culvert identified as "minepond" (map attached) had occurred with Summer 2023 storm events. The roadway had closed for a few days while sediment was removed and areas temporarily stabilized at the site. The existing culvert at this site was small and caused overtopping of the roadway, damage to the existing culvert, along with destabilizing the drainage channel. The immediate fix was to replace the damaged culvert with two larger diameter corrugated plastic pipes, however, the recommended headwalls for the culvert have not been installed as county funding had to be re-appropriate to address this emergency condition.

Our proposed project is to install headwalls on the newly replaced "minepond" culvert, along with replacing two other high priority culvert sites, with headwalls for both. The "minepond" culvert because of its failure was the highest priority. Two other culverts identified as Culvert ID-7 and Culvert ID-9 (see attached map) are the next highest priority.

Storey County is requesting financial assistance with the completion of the headwalls for the "minepond" culvert and the replacement of Culvert ID-7 and Culvert ID-9 with headwalls for both new culverts. Storey County plans to install the improvements in late summer/early fall of 2024



## STOREY COUNTY PUBLIC WORKS

100 Toll Road

P.O. Box 435 Virginia City, Nevada 89440

Phone (775) 847-0958 Fax (775) 847-0947

[mnorthan@storeycounty.org](mailto:mnorthan@storeycounty.org)

### Six Mile Canyon Culvert Project

**Project Justification** – The Virginia City/Six Mile Area Drainage Master Plan (ADMP) identified significant issues with the drainage channel in Six Mile Canyon.

As stated in the Project Description, storm events in the Virginia City area create large amounts of runoff reaching Six Mile Canyon at a high velocity. Erosion of channels, culverts being undersized to handle the volume of runoff and culverts being filled with sediment all cause the roadway to be undercut and large amounts of sediment and vegetation debris to be left on the roadway. This makes the roadway impassable which negatively impacts public safety, schools and the general public access.

The sediment movement also impacts the floodplain function and downstream land which eventually reaches the Carson River. In addition to the debris from the vegetation within the canyon, the historic use of this canyon included mills associated with mining activities which used mercury. The EPA and NDEP have tested and monitored Six Mile Canyon and have found evidence of mercury in the canyon. With each storm event that is large enough to cause erosion, the potential for mercury to be moving closer to the Carson River occurs. EPA has designated the area of Six Mile Canyon as the Carson River Mercury Superfund Site, Operable Unit 1.

Storey County has approved the Carson River Regional Floodplain Management Plan (CRRFMP) and is a partner to the CWSD along with the local jurisdictions along the Carson River. The strategies identified in the CRRFMP to mitigate flood hazards by protecting natural floodplain function, minimize stormwater impacts and address bank migration and erosion are related to the culvert replacement project. Objectives outlined in the document, including ensure public safety upstream, protect and improve water quality, and provide continuity and connectivity from floodplain to river, are all a part of the objective to have a functioning drainage channel through Six Mile Canyon.

The proposed project is consistent with the following CWSD funding criteria:

- *The project will provide regional benefits within the Carson River Watershed.* Replacing undersized culverts and adding headwalls to the culverts will greatly decrease the amount of erosion incidents along the roadway in Six Mile Canyon. With runoff being able to flow through the drainage system, rather than being blocked and misdirected, less erosion of channel banks and roadway may occur. Allowing runoff to flow rather than churn up sediment and debris may also assist in leaving mercury deposits in place as opposed to flowing down the floodplain to eventually meet with the Carson River. Beyond the environmental value, being able to keep the roadway clear and open has safety and public service benefits to the surrounding area.
- *The project will improve water quality.* Less sediment disturbance will allow for runoff to follow the natural drainage and allow for the floodplain to function. Less mercury may also be deposited further downstream.



## STOREY COUNTY PUBLIC WORKS

100 Toll Road

P.O. Box 435 Virginia City, Nevada 89440

Phone (775) 847-0958 Fax (775) 847-0947

[mnorthan@storeycounty.org](mailto:mnorthan@storeycounty.org)

### Six Mile Canyon Culvert Project

#### **Project Justification (continued)**

- The project will in the long term prevent further stream bank erosion. Although unlikely to impact Carson River banks, the culverts and headwalls installation will assist in stabilizing the Six Mile Canyon drainage system, helping eliminate sediment from moving closer to the Carson River.
- The project will reduce flooding along the Carson River. Sediment deposits into the floodplain negatively impact the functioning of the floodplain. The reduction of sediment entering into the floodplain will allow for the floodplain to function and potentially limit the contamination of the area with additional mercury.
- The project will improve the administration and management of river and stream systems. By having functioning culverts, Storey County will require less staffing to monitor the storm conditions within Six Mile Canyon. Currently, when storm events are anticipated, County staff are on patrol of the canyon looking for trouble spots and attempting to address any problem sites prior to catastrophic failures. Depending on the storm event and how widespread the event may be over the County, the limited staff may not be successful in catching runoff issues in time to make a difference in the impact. Having functioning culverts designed for a larger storm event and headwalls that are designed to deter erosion will assist in eliminating known problem areas.





## STOREY COUNTY PUBLIC WORKS

100 Toll Road

P.O. Box 435 Virginia City, Nevada 89440

Phone (775) 847-0958 Fax (775) 847-0947

*mnorthan@storeycounty.org*

### **Six Mile Canyon Culvert Project**

**Finances:** Financing of any improvements along Six Mile Canyon comes from the Storey County General Fund. In the past, Storey County has not been successful with obtaining grant funding for such improvements because of the Superfund designation. This designation adds a significant layer of complication when applying for grants. Federal grant administrators have been very cautious in the past that the amount of time and effort to keep responding to more and more information requests has made the effort unfeasible for County staff.

It should be pointed out that regardless of the funding source, Storey County works closely with the Nevada Department of Environmental Protection (NDEP) and follows all Best Management Practices for construction activities in the Superfund site.

Storey County staff have calculated the costs associated with the proposed project. The work will be accomplished by Storey County Public Works staff and no outside contracting is anticipated.

Estimated amount for replacement of three culvert locations and installation of headwalls at three locations is **\$58,500**.

Amount spent on replacement of "minepond" culvert in Fall 2023 is **\$22,000**.

Total amount requested from CWSD is **\$36,500**.

## Six Mile Canyon Culvert Replacements

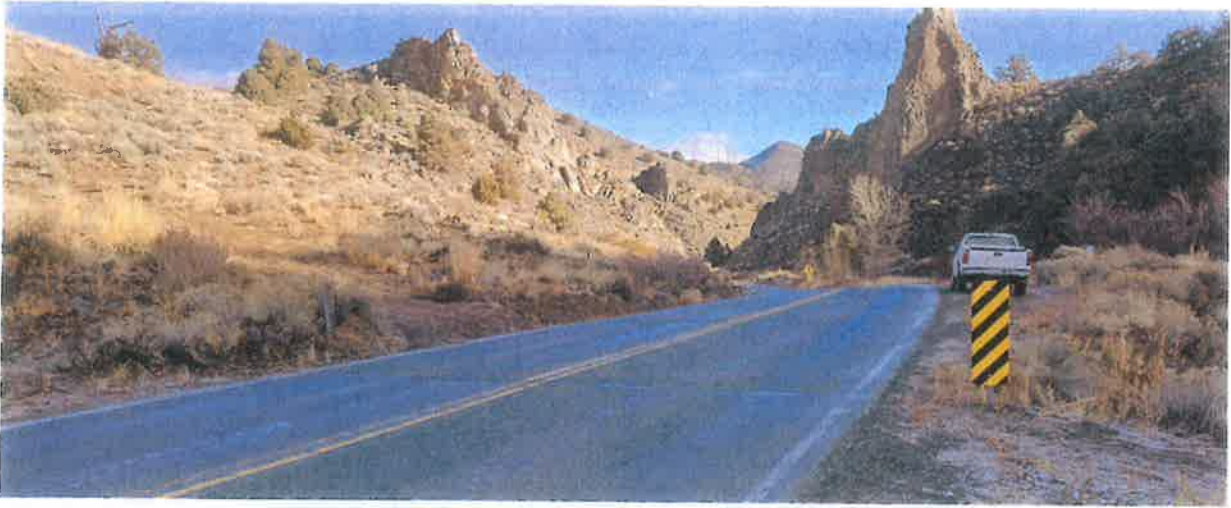
Culvert ID-7





## Six Mile Canyon Culvert Replacements

Culvert ID-9





# FINANCES - 6 MILE CANYON

JAN 10 2023

CULVERT SITES 7 & 13

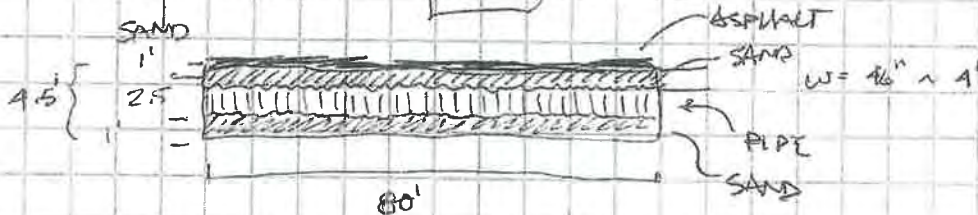
1500 / STICK 20' OR  $\sim 65^{\circ}/\text{FT}$  [30" PLASTIC CULVERT PIPE]

SITE 7 IN-HOUSE PRICES

DAY 1 L =  $\sim 70'$  20 40 60 80 1 STICKS PIPE =  $\$5,200^{\circ}$  PIPE

TRENCH COST - BLK EXC 2.61 YD BUCKLER 100  $^{\circ}$ /HR

6h @ 100  $^{\circ}$  = 600  $^{\circ}$  EQUIP  
6h @ 30  $^{\circ}$ /hr = 180  $^{\circ}$  OPERATOR



4' x 80' x 1' = 320  $\text{CU FT}$  = 11 x 2 = 22 CY

@ 30  $^{\circ}$ /CY = (22)(30) = 660  $^{\circ}$

SAND PLACEMENT

(4h)(2 MEN)(30  $^{\circ}$ /hr) = 240  $^{\circ}$

COMPACTOR

(4 MH)(30  $^{\circ}$ ) = 120  $^{\circ}$  + EQUIP 43  $^{\circ}$ /HR x 4 = 173  $^{\circ}$

PIPE PLACEMENT

LOADER 95  $^{\circ}$ /HR

(4h)(95  $^{\circ}$ ) = 380  $^{\circ}$

(16 MH)(30  $^{\circ}$ ) = 480  $^{\circ}$

BACKFILL - LOADER 95  $^{\circ}$  (1h) = 95  $^{\circ}$

OPERATOR (1)(30  $^{\circ}$ /hr) = 30  $^{\circ}$

LABOR (3 MH)(30  $^{\circ}$ /hr) = 90  $^{\circ}$

ASPHALT PATCH

80' x 6' [T-PATCH] x .3' = 144 CF = 5.33 YDS = 10 TONS

OR 480 SF x  $\frac{1}{2}$   $^{\circ}$ /SF = 240  $^{\circ}$  140 PCF @ 80  $^{\circ}$ /TON

\* FEMA 2023 EQUIP RATES 480 SF x 7  $^{\circ}$  = 3,360

= 800  $^{\circ}$

TOTAL FROM PAGE 1

~~4,112<sup>03</sup>~~ 6,412<sup>13</sup>

TRAFFIC CONTROL  $(1500^{\circ\circ}/\text{DAY})(2 \text{ DAYS}) = \boxed{\$ 3,000}$

TRUCKING SPOILS - (3 TRIPS) @ .5h = (1.5h)(748<sup>3</sup>/hr)  $\boxed{\$ 112^{24}}$

TRUCK SAND - (2 TRIPS) @ 1h = (2.0h)(748<sup>3</sup>) =  $\boxed{149^{66}}$

DRIVER (INCLUDES ON-SITE TIME)  
 $(12h)(30^{\circ\circ}) = \boxed{360^{\circ\circ}}$

$\Sigma = 10,034^{03} + \text{PIPE } 5,200^{\circ\circ} =$

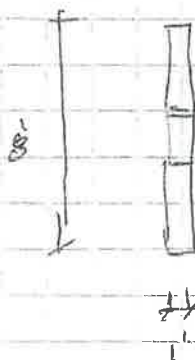
~~4,034<sup>03</sup>~~  $\Sigma = \boxed{\$ 15,234^{03}}$  PER CULVERT

HEADWALL

2 GUYS, 205 DAYS = 40 MH @ 30<sup>00</sup>/HR =  $\boxed{\$ 1200^{\circ\circ}}$

FORMS -  $\boxed{\$ 700^{\circ\circ}}$  PLU, LUMBER, WIRE, REINF.

CONCRETE



$h = 5' = 32 \text{ CF}$

+ RAMP

$8' \times 4' \times .5' = 16 \text{ CF}$

$48 \text{ CF} = 1.7 \text{ YDS @ } 80^{\circ\circ}/\text{YD}$

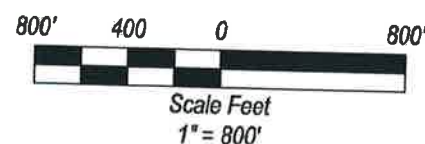
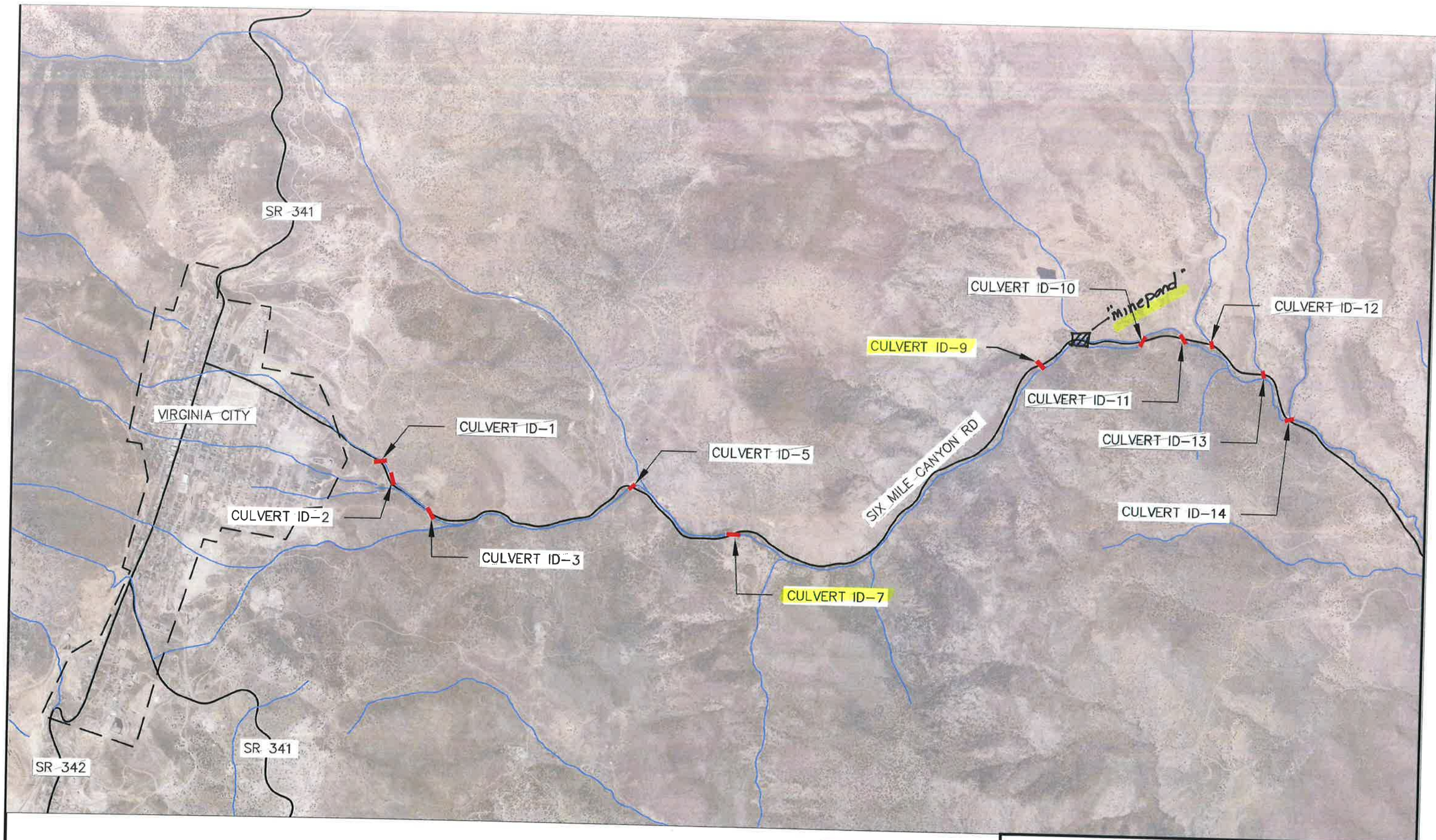
$\boxed{142^{\circ\circ}}$

HEADWALL  $1200 + 700 + 142 = \boxed{\$ 2,042}$

SO. TOTAL PER CULVERT =

$\boxed{\$ 17,276^{03}}$





**FARR WEST**  
**ENGINEERING**  
 5442 LONGLEY LANE, SUITE A  
 RENO, NEVADA 89511  
 PHONE: (775) 851-4788  
 FAX: (775) 851-0766

**CULVERT VICINITY MAP**  
**STOREY COUNTY**  
**SIX MILE CANYON DRAINAGE IMPROVEMENTS**

DESIGNED	DGM	DATE	MAR 2015	JOB #	0790
DRAWN	CSF	CHECKED	-	SCALE	1" = 800'





# CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING FY 2024-25

**APPLICANT:** The Nature Conservancy - River Fork Ranch Preserve

Name

639 Isbell Road, Suite 330

Address

Reno

Washoe

City

County

Nevada

Washoe

State

Zip Code

lori.leonard@tnc.org (702) 533-3255 (cell) (775) 322-4990 (office)

Email

Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Name

Address

City

County

State

Zip Code

Email

Telephone #

**PROJECT NAME:** Riparian tree planting, wetland enhancements, and adaptive grazing

**PROJECT LOCATION/ADDRESS:**

TNC's River Fork Ranch Preserve

381 Genoa Lane, Minden, NV 89423

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

TNC would like to plant trees along the W. Fork of the Carson River, filter irrigation water with wetland enhancements, and implement rotational grazing to improve water quality. (See attached)

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

The goals of this project are to improve water quality & soil health by planting trees along the Carson River, creating ~1/4-acre wetlands to filter irrigation water, and rotational grazing.

**TOTAL ESTIMATED PROJECT COST:** \$102,898

**AMOUNT REQUESTED FROM CWSD:** \$64,178

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

This project would expand on existing NRCS EQIP funds for exclusion fencing, pasture watering facilities, and repair of banks at return flow pipe locations. We are seeking 319h grant funding also.

**ESTIMATED DATE PROJECT TO BEGIN:** June 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** June 2026

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.  
N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

These projects would be used as demonstration sites. Photo monitoring will be annual. If 319h funds are awarded, water quality and soil sampling would be conducted to monitor for changes.

SIGNED: Michael Hazelwood

NAME: Michael Hazelwood

TITLE: TNC's NV Conservation Director

DATE: 1-25-24

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



## **CWSD Grant Proposal 2024-25**

### **The Nature Conservancy's (TNC) River Fork Ranch Preserve**

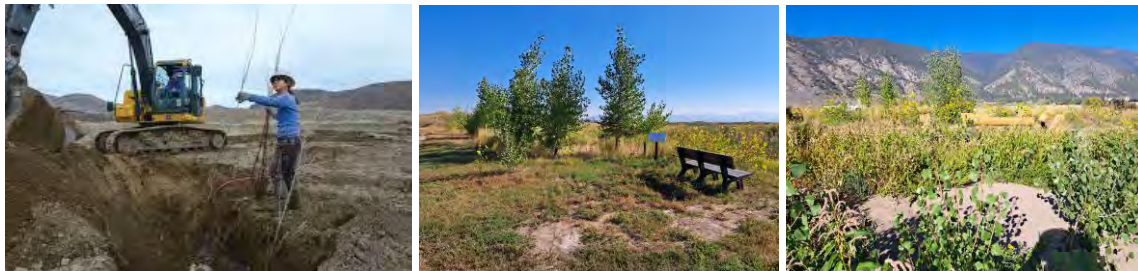
#### **Riparian Tree Planting, Enhanced Wetlands, Rotational Grazing**

The Nature Conservancy's 805-acre River Fork Ranch Preserve includes a 2-mile stretch of the West Fork of the Carson River, both branches of the Brockliss Slough, and several irrigation ditches that run through the Preserve. The Preserve is managed as a wildlife preserve and working cattle operation. According to the Carson River Adaptive Stewardship Plan (CRASP), "channelization and levee construction in the Carson Valley "...has resulted in channel instability and an increase in sediment loading to the river". It also notes that agriculture inputs can add to sediment, Nitrogen, Total Phosphorus, pesticides, and bacteria in this stretch of the Carson Valley (CWSD, 2017). We are looking for effective cost-effective methods to improve water quality with riparian tree planting, enhanced wetlands to filter irrigation water before it returns to the West Fork of the Carson River, and rotational grazing.

This project would be expanding on TNC's Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) cost-share grant, which is funding exclusion fencing along rivers and irrigation ditches, and watering facilities. Both are "Recommended Management Measures" for this Critical Area, mentioned in the CRASP (2017). The fence was installed Fall 2023, and the stock watering facilities will be complete by the Spring of 2024. EQIP funding will also support streambank stabilization around return flow pipes along the W. Fork of the Carson River, which will be completed within the next 1-2 years. TNC is also seeking funding through the Nevada Department of Environmental Protection (NDEP) 319(h) grant to support this project.

#### **Practice 1: Cottonwood Planting in Five-foot Trenches**

Cottonwood trees will be harvested in January or February from The Nature Conservancy's McCarran Ranch Preserve, where cottonwood trees have successfully grown from seed to heights of six-ten feet. The roots are wrapped in burlap and soaked to keep the roots damp. Trees are then transplanted into trenches dug ~3-5 feet with a backhoe in riparian areas. This places the roots at or near the water table, giving them the greatest potential for success during the dry summer months.

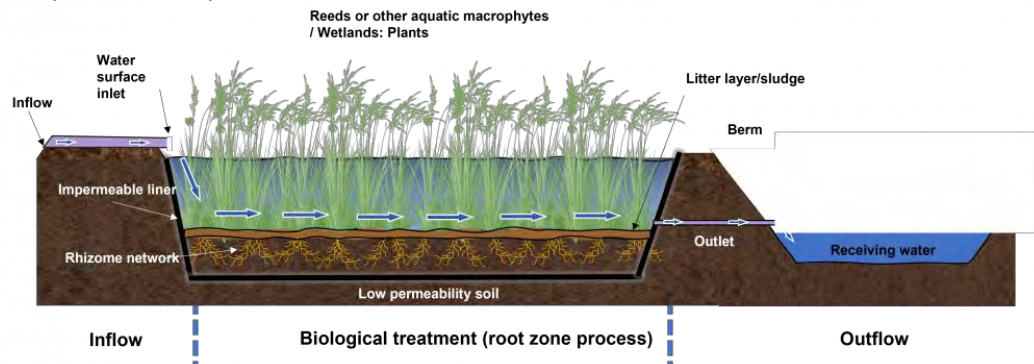


Left: TNC Cottonwood tree planting along the Truckee River (2016). Photo: <http://tahoequarterly.com/environment/pines-to-pyramid>. Middle & Right: Successful tree planting (2020) at TNC's River Fork Ranch (Photo: Leonard, 2023)

## Practice 2: Enhanced Wetlands to filter irrigation water returning to Carson River

Wetland enhancement is the rehabilitation of a degraded wetland, and/or the modification of an existing wetland to favor specific wetland functions. For this project, we would like to create a depression (enhanced wetland) to filter pasture irrigation water before it returns to the West Fork of the Carson River. Wetland enhancements would include:

- Hydrologic enhancement (depth duration and season of inundation, and/or duration and season of soil saturation),
- Vegetative enhancement (seeding or planting of desired species to filter sediment and non-point source pollution).

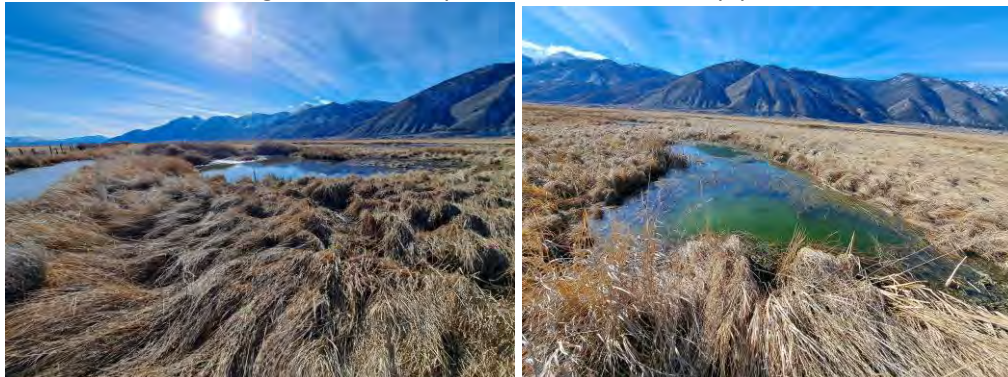


Enhanced Wetland Design example.

<https://wiki.sustainabletechnologies.ca/wiki/Wetlands>



River Fork Ranch pictures. Left: Pasture side of Return Flow pipe without wetland enhancement. Right: River side picture of Return Flow pipe.



Right: Example of a wetland depression where water is filtered through wetland vegetation prior to returning to irrigation ditch. (Photos: Leonard, 2023)

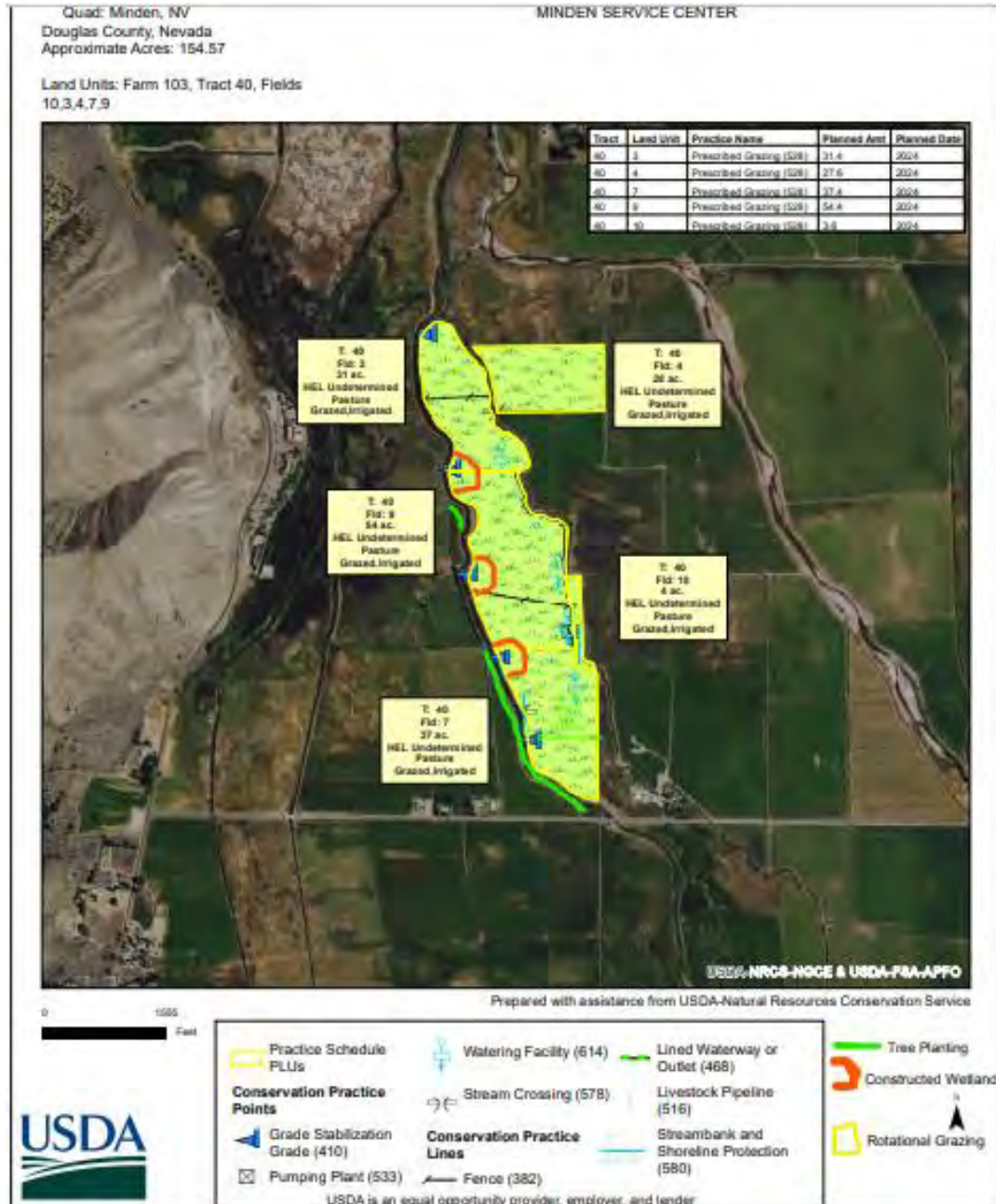
**Practice 3: Rotational Grazing** TNC would like to experiment with rotational grazing in some pastures. According to the USDA U.S. Department of Agriculture, rotational grazing has many potential environmental and economic advantages.

- Improves [soil structure, biodiversity, cover, organic matter, and carbon sequestration](#)
- Prevents overgrazing, [reducing runoff, limiting soil erosion, and improving water quality](#)
- Increases pasture [drought resilience](#)
- Better distributes nutrients from manure throughout a pasture
- [Increases forage for livestock](#) and [animal productivity](#)
- [Reduces costs and increases profit](#)
- [Results in fewer herd health problems](#)
- Makes livestock [tamer and easier to move](#) (with continuous handling)
- [Reduces pesticide use](#)
- [Can reduce greenhouse gas emissions](#) from livestock by eliminating manure storage facilities, improving forage quality, and sequestering soil organic carbon in rangelands (<https://www.climatehubs.usda.gov/hubs/international/topic/rotational-grazing-climate-resilience>)






The Nature Conservancy – River Fork Ranch Preserve  
**Riparian Tree Planting, Enhanced Wetlands, Rotation Grazing**  
 381 Genoa Lane  
 Minden, NV 89423



 River Fork Ranch Preserve B...

 Confluence N Pasture (~17 a...


 SE Pasture (~33.5 acres)


 Bridge Pasture (~12.5 acres)

 Center North Pasture (~37 a...

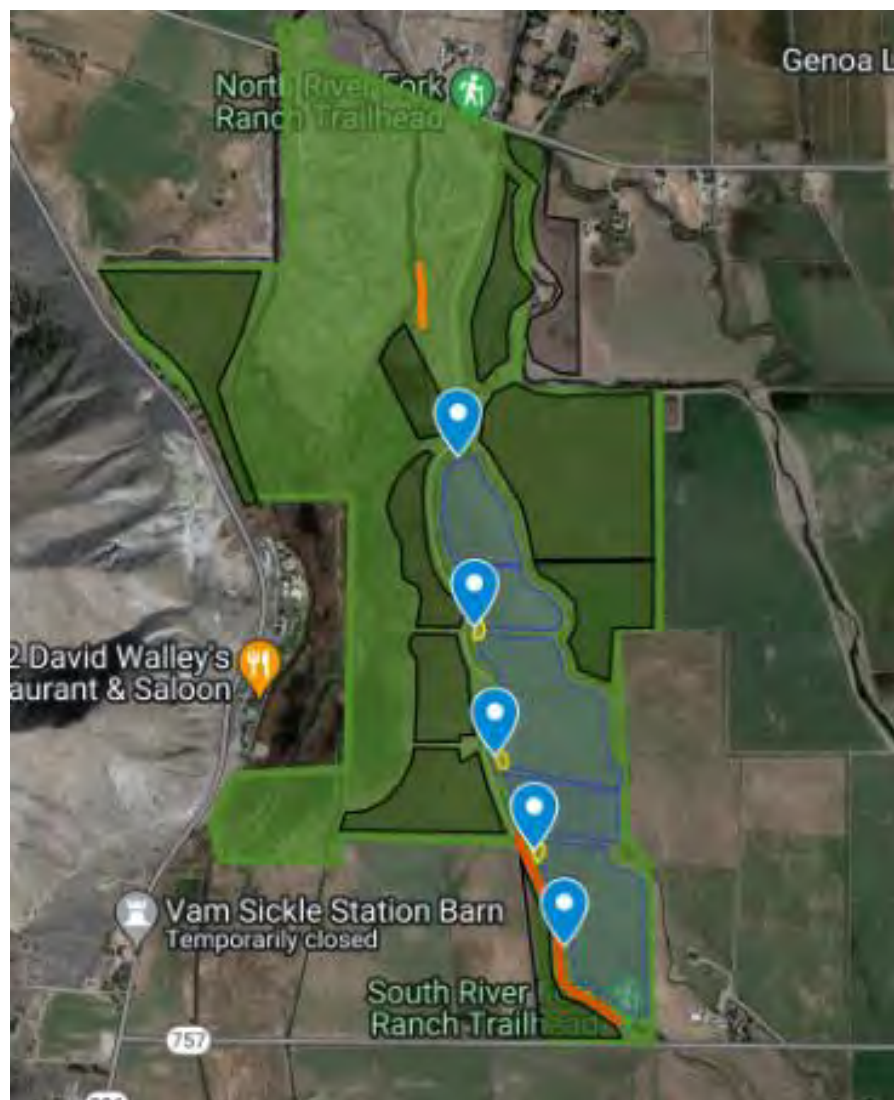
 **Center S pasture (~15.5 acres)**

 Enhanced/Constructed Wetl...

 Tree Planting (West Fork Car...

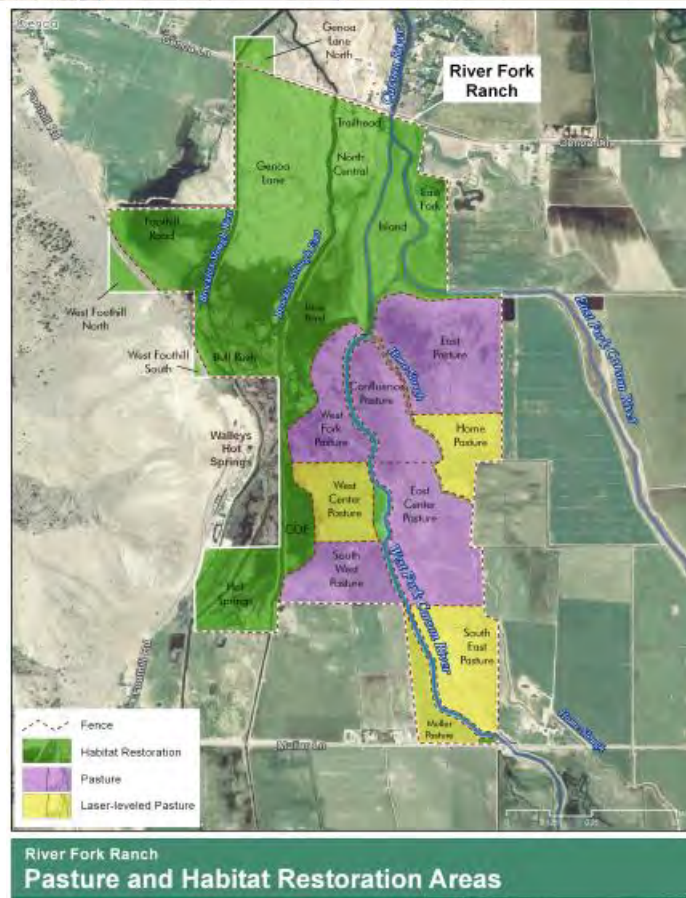
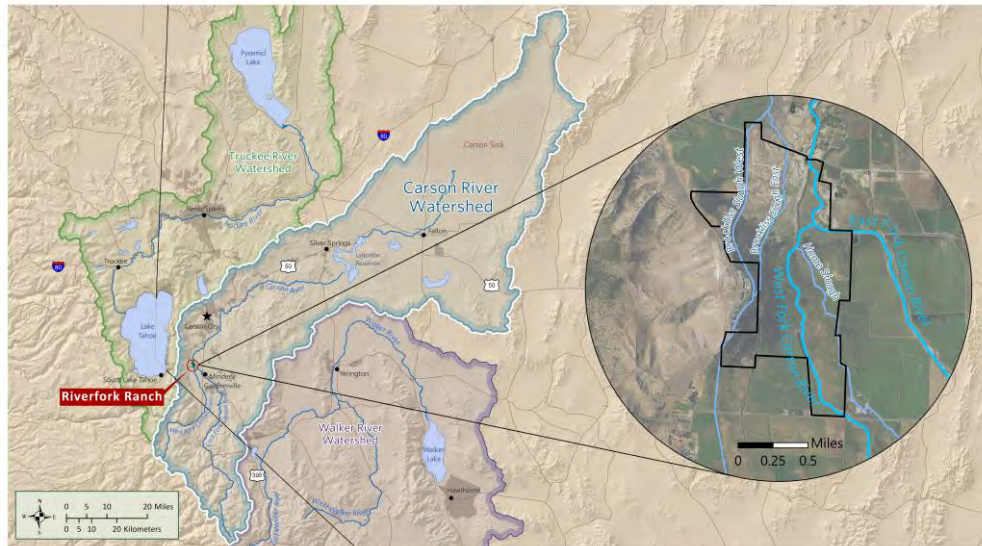
 Tree Planting (Brockliss)

 Return

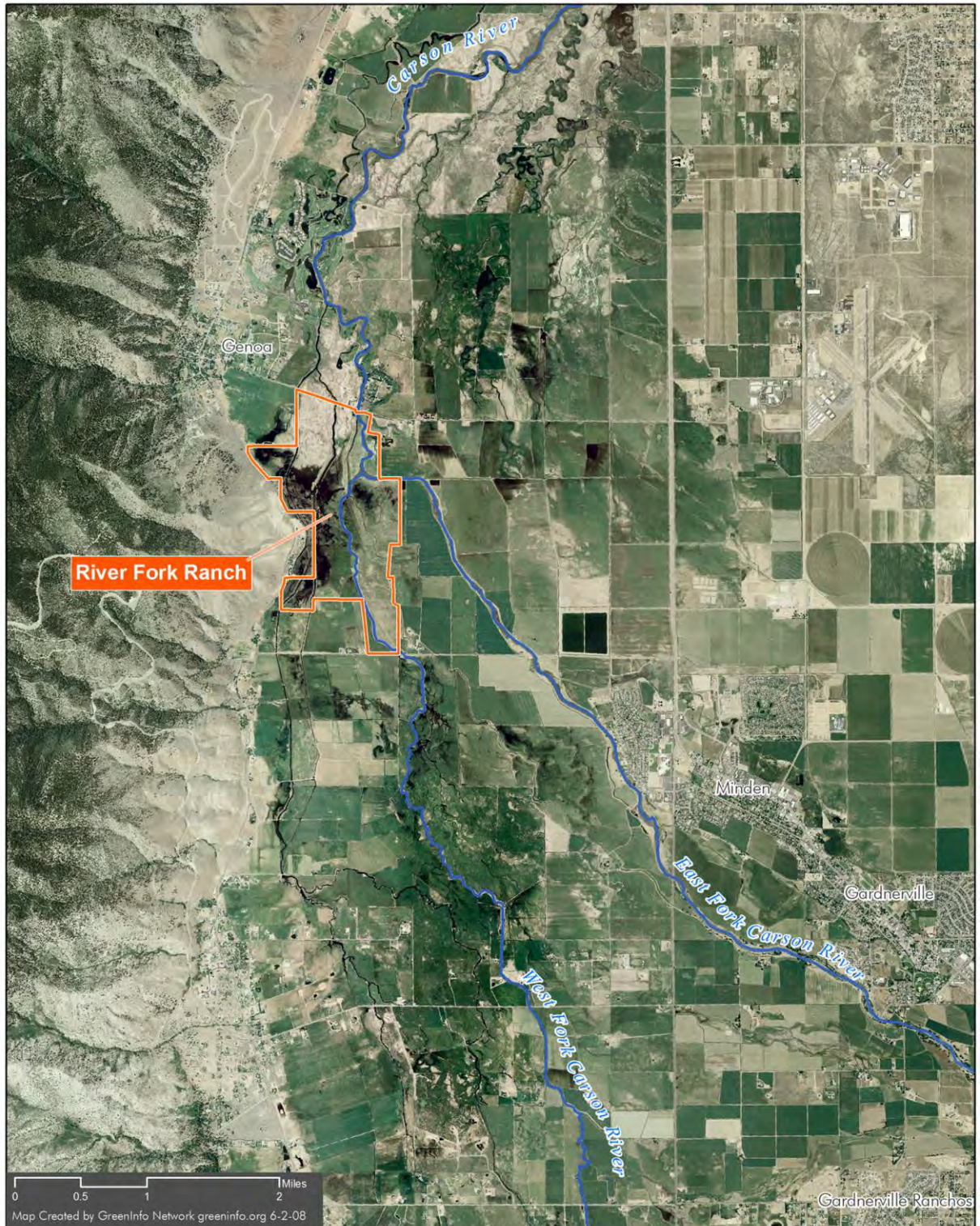




The Nature Conservancy – River Fork Ranch Preserve  
**Riparian Tree Planting, Enhanced Wetlands, Rotation Grazing**  
381 Genoa Lane  
Minden, NV 89423







**The Nature Conservancy's  
Carson Water Subconservancy District (CWSD) 2024  
Riparian tree planting, wetland enhancements, and adaptive grazing**

**The Nature Conservancy**

<b>Salaries and Labor</b>	<b>\$/Hour</b>	<b># of Hours</b>	<b>Total</b>
TNC Preserve Manager (Tree harvesting/planting, volunteer day organization, monitoring, grant reporting)	\$45	200	\$9,000
TNC Restoration Projects Manager (Tree Harvesting/Planting)	\$55	100	\$5,500
Benefits	44.86% of	300	\$6,505
Volunteer Hours (In Kind)	\$28.50	80	\$2,280

**Total**

<b>CWSD</b>	<b>In Kind</b>	<b>Match</b>
\$9,000		
\$5,500		
\$6,505		\$0
	\$2,280	

**\$21,005**

**\$2,280**

**\$0**

<b>Supplies &amp; Equipment</b>	<b>Cost per item</b>	<b>Total items</b>	<b>Total</b>
Cottonwood trees	\$45	700	\$31,500
Willow cuttings	\$10	150	\$1,500
Seed (cost/acre)	\$650	4	\$2,600
Tree Protection: Fence, posts, vole guards, etc	\$3,000	1	\$3,000
Excavator Rental (per week)	\$3,000	2	\$6,000

**Total**

<b>CWSD</b>	<b>In Kind</b>	<b>Match (Crutchfield)</b>
	\$31,500	
	\$1,500	
\$2,600		\$1,000
\$3,000		
\$6,000		

**\$11,600**

**\$33,000**

**\$1,000**

<b>Electric Fence Supplies</b>	<b>Cost per item</b>	<b>Total items</b>	<b>Total</b>
IntelliBraid® Twine PE 3.0, Electric Fence Posts, accessories, and Solar	\$1	4000	\$4,000

**Total**

<b>CWSD</b>	<b>In Kind</b>	<b>Match</b>
\$4,000		

**\$4,000**

**\$0**

**\$0**

<b>Monitoring/Contractual</b>	<b>Cost per item</b>	<b>Tasks/items</b>	<b>Total</b>
Independent Contractors (Tree & willow harvesting/planting/monitoring) \$7000/week	\$7,000	1	\$7,000

**Total**

<b>CWSD</b>	<b>In Kind</b>	<b>Match</b>
\$7,000		

**\$7,000**

**\$0**

**\$0**

Community Education	Cost per item	Tasks/items	Total		CWSD	In Kind	Match E.L. Cord
Wranglers, CWSD, TNC, others) 4 events (In Kind -	\$ 1,000	4	\$4,000		\$2,000	\$1,000	\$1,000
Total					\$2,000	\$1,000	\$1,000

Wetland Enhancements	Cost per item	Acres	Total		CWSD	In Kind	Match
Wetland Enhancements - depression, sediment	\$3,500	2	\$7,000		\$7,000		
Total					\$7,000	\$0	\$0

sector value of volunteer time: \$28.50/hr (https://independentsector.o rg/resource/value-of-  **(NICRA 2024 Rate 22%)		CWSD	In Kind	Match	Pending 319(h) estimate	NRCS EQIP
	TNC Direct Costs	\$52,605	\$36,280	\$2,000	\$100,000	\$95,000
	Indirect Costs 22%	\$11,573	\$0	\$440	\$22,000	
	Total	\$64,178	\$36,280	\$2,440	\$122,000	
	% of Project	0.62	0.35	0.02		
		Project Total:			\$102,898	
Total Match (In		0.38				





CARSON WATER SUBCONSERVANCY  
DISTRICT REQUEST FOR FUNDING FY 2024-25

APPLICANT:

Brenda Hunt

Name

777 E William St Suite 209

Address

Carson City

Watershed Wide

City

County

NV

89701

State

Zip Code

brenda@cwsd.org

775.887.9005

Email

Telephone #

APPLICANT’S AGENT (if different from Applicant):

Name

Address

City

County

State

Zip Code

Email

Telephone #

PROJECT NAME: Watershed Campaign Outreach - TV & Radio

**PROJECT LOCATION/ADDRESS:**

Same as above

---

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

Using our existing assets, CWSD will work with a contractor to continue our traditional media press releases, PSAs, audio ads for TV & Radio, and possibly newspapers.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

The project is consistent with the goals of the CRASP, specifically the Watershed-Literacy Action Plan and meets Section B Criteria 1 & 6, and enhances the likelihood of Criteria 2-5.

**TOTAL ESTIMATED PROJECT COST:** \$20,000

**AMOUNT REQUESTED FROM CWSD:** \$20,000

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

One Truckee River has requested \$15,000 from the Western Regional Water Commission to promote Make Your Yard A Sponge. This request would continue to fund other the 5/30-sec PSAs on TV & Radio.

**ESTIMATED DATE PROJECT TO BEGIN:** July 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** June 30, 2025

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.  
N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

We plan to update the 2015 watershed-wide survey in FY 2025-26. This funding would bridge the gap due to loss of NDEP/USEPA grant support. The survey cannot happen sooner due to 2024 presidential election.

SIGNED: Brenda Hunt

NAME: Brenda Hunt

TITLE: Watershed Program Manager

DATE: 01/23/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



**APPLICANT:** Brenda Hunt, CWSD Watershed Program Manager

777 E William St Suite 209

Address

## Carson City

## Watershed-wide

City

County

NV

89701

State

Zip Code

brenda@cwsd.org

775.887.9005

Email

Telephone #

**APPLICANT'S AGENT (if different from Applicant):**

Name

Address

City

County

State

Zip Code

Email

Telephone #

**PROJECT NAME:** CWSD Watershed Clerk Position

**PROJECT LOCATION/ADDRESS:**

CWSD Offices 777 E William St Suite 209  
Carson City, NV 89701

**PROJECT DESCRIPTION:** Briefly describe the project. Provide maps, drawings, photographs or other information. Additional sheets may be attached.

Hire Watershed Clerk to assist CRASP implementation through social/traditional media efforts, outreach events, website updates, grant procurement, CRC Coord, field work, and project implementation.

**PROJECT GOALS AND BENEFITS:** Briefly describe the project goals and benefits to be realized if the project is implemented, and how it is consistent with the CRASP and/or CRRFMP. Additional sheets may be attached.

This position meets Sect. B criteria 1, 5 and 6 & will lead to enhancements for criteria 2-4 WQ improvements, protection of our stream banks, and reduction of flooding via outreach efforts.

**TOTAL ESTIMATED PROJECT COST:** \$56,500 (9 mos appt starting in Oct. 2024)

**AMOUNT REQUESTED FROM CWSD:** \$56,500 (for 2024/2025 fiscal year), future years: ~ \$75, 200 per/yr. 35 hr week

**SOURCE OF OTHER FUNDS:** List all other sources of funds to be used to match funds requested from CWSD. List the provider of the matching funds and the amount requested from each provider.

No other funds id'd at this time. CWSD proposes to hire the Watershed Clerk in lieu of supporting our AmeriCorps and replacing Watershed Program Specialist due to loss of grant from NDEP/USEPA.

**ESTIMATED DATE PROJECT TO BEGIN:** October 1, 2024

**ESTIMATED TIME TO COMPLETE PROJECT:** 9mos requested June 30, 2025  
(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.)

**PERMIT REQUIREMENTS:** If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional sheets may be attached.  
N/A

**OTHER INFORMATION:** Provide any other information that may be important to the approval of this application.

Due to loss of NDEP/USEPA grant funding & the Watershed Specialist's retiring, we find ourselves with limited funding to meet our obligations to support integrated watershed planning and CRC coord.

SIGNED: Brenda Hunt

NAME: Brenda Hunt

TITLE: Watershed Program Manager

DATE: 1/23/2024

*Carson Water Subconservancy District reserves the right to deny any and/or all applications for funding.*



## CARSON WATER SUBCONSERVANCY DISTRICT

**TO:** FINANCE COMMITTEE MEMBERS

**FROM:** EDWIN D. JAMES

**DATE:** FEBRUARY 26, 2024

**SUBJECT:** Agenda Item #6 - For Possible Action – Make recommendations for the Tentative General Fund, Tentative Acquisition/Construction Fund, and Tentative Floodplain Management Fund FY 2024-25 Budgets

---

**DISCUSSION:** Review and develop balanced budgets for Tentative General Fund, Tentative Acquisition/Construction Fund, and Tentative Floodplain Management Fund.

**STAFF RECOMMENDATION:** Provide direction to staff to submit balanced budgets for FY 2024-25 Tentative General Fund, Tentative Acquisition/Construction Fund, and Tentative Floodplain Management Fund to CWSD March Board meeting.