

CARSON WATER SUBCONSERVANCY DISTRICT FINANCE COMMITTEE

NOTICE OF PUBLIC MEETING

DATE: March 1, 2021
TIME: 8:30am – 2pm
LOCATION: Via Zoom & Teleconference

AGENDA

NOTICE TO PUBLIC: *The State of Nevada and Carson City are currently in a declared State of Emergency in response to the global pandemic caused by the coronavirus (COVID-19) infectious disease outbreak.*

In accordance with the Governor's Declaration of Emergency Directive 006, which has suspended the provisions of NRS 241.020 requiring the designation of a physical location for meetings of public bodies where members of the public are permitted to attend and participate, public meetings of Carson Water Subconservancy District will NOT have a physical location open to the public until such time this Directive is removed.

Members of the public who wish to participate during a public meeting may do so by providing public comment during the two designated public comment periods, indicated on the agenda, via telephone.

*To join by telephone, you must call **(712)451-0750** and then enter **Access Code: 411219**. You may also provide public comment in advance of a meeting by written submission to the following email address: catrina@cwdsd.org. For inclusion or reference in the minutes of a meeting, your public comment must include your full name and be submitted via e-mail by not later than 3pm the day before the date of the meeting.*

1. Call to Order the CWSD Finance Committee
2. 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.
3. For Possible Action: Approval of the Finance Committee Meeting Minutes of February 21, 2020
4. For Discussion Only: Review the Tentative General Fund FY 2021-22 Budget and hear presentations for proposed projects; review the Tentative Acquisition/Construction Fund FY 2021-22 Budget; and review the Tentative Floodplain Management Fund FY 2021-22 Budget
5. For Possible Action: Make recommendations for the Tentative General Fund, Acquisition/Construction Fund, and Floodplain Management Fund FY 2021-22 Budgets
6. 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.
7. For Possible Action: Adjournment

Supporting material for this meeting may be requested from Catrina Schambra at 775-887-7450 (catrina@cwdsd.org) and on the CWSD website at www.cwdsd.org.

In response to COVID-19 Emergency Directive:

Posting in public buildings in accordance with NRS 241.020 has been waived by COVID-19 Emergency Directive #6 of Governor Sisolak. Therefore, this notice and agenda of video conference meeting has been posted on or before 9am on February 22, 2021 on the following websites for the March 1, 2021 regular meeting of the Carson Water Subconservancy District Finance Committee, in accordance with NRS 241.020:

Carson Water Subconservancy District Website:

<http://www.cwdsd.org>

State of Nevada Public Meetings Website:

<http://notice.nv.gov>

CWSD FINANCE COMMITTEE

March 1, 2021

Approximate Time Schedule

- 8:30 a.m.** Budget Overview
- 8:40 a.m.** Income Sources (CWSD staff)
- 8:50 a.m.** Administrative Budget for FY 2021-22 (CWSD staff)
- 9:05 a.m.** Multi-Year, On-going Projects, or Grants (CWSD staff)
- 7114 -00 Professional Outside Services
 - 7117 & 7118 Lost and Mud Lake Expenses
 - 7120-00 Integrated Watershed Projects
 - 07 Watershed Tour
 - 25 Watershed Coordination Program (Grant)
 - 7404-00 Noxious Weeds Control
 - 7439-00 FEMA Floodplain Mapping Program MAS # 10 (Grant)
 - 7440-00 FEMA Floodplain Mapping Program MAS # 11 (Grant)
 - 7433-10 State Park – Aquatic Trail (Grant)
 - 7438-00 USBR WaterSmart – Water Marketing Study
 - 7600-09 Alpine County- CASGEM & Mesa Study (Grant)
 - 7610-10 Regional Pipeline Payment to Douglas County
 - 7620-11 Regional Pipeline Payment to Carson City
 - 7640-16 Dixie Valley Water Level (A)
 - 7524-00 USGS Water Level & Quality – Churchill County (B)
 - 7526-00 USGS Eagle/Dayton/Churchill Basins (C)
- 9:30 a.m.** Recreation Trails
- Historic Virginia & Truckee Trail (1)
 - Great Basin Institute - Lower Ash Canyon Trail(2)
 - Carson City – Empire Ranch to Riverview Park (3)
- 9:50 to 10:10 am** Break
- 10:10 a.m.** Carson River Projects
- Carson Valley Conservation District/ Bioengineering (4)
 - Carson Valley Conservation District/ West Fork Bank Stabilization (5)

Dayton Valley Conservation District River Project (6)
Lahontan Conservation District (7)
Sierra Nevada Journeys (8)
River Wranglers - Carson River Work Days (9)
Alpine Watershed Group Watershed Programs (10)
Alpine Watershed Group Markleeville Ck Floodplain Project (11)

11:20 a.m. New Projects

Alpine County Fish and Game Commission (12)
Town of Gardnerville (13)
Churchill County Lahontan Valley Water Level (14)
TCID – Carson River Diversion Dam (15)
CWSD – WaterSmart Grant – Basin Plan Study (16)

11:45 a.m. USGS Projects

7500-00 USGS Stream Flow Gauges (17)
7508-00 USGS Eagle/Dayton/Churchill Groundwater Monitoring (18)

12:00 p.m. Acquisition/Construction Budget for FY 2021-22
Floodplain Management Budget for FY 2021-22

12:10 p.m. Lunch

12:30 p.m. Review Budgets and Make Recommendations to the Board

AGENDA ITEM #3
MINUTES OF LAST
FINANCE COMMITTEE MEETING

CARSON WATER SUBCONSERVANCY DISTRICT
FINANCE COMMITTEE MEETING
February 21, 2020, 8:30am – 1pm
DRAFT Meeting Minutes

DRAFT

Committee Members Present:

Brad Bonkowski, Carson City
David Griffith, Alpine County (for Don Jardine)
Barry Penzel, Douglas County
Ernie Schank, Churchill County
Mike Workman, Lyon County

Committee Members Not Present:

Don Jardine, Alpine County

Staff Present:

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

Others Present:

Daniel Bright, USGS
Jorge Guerrero, Churchill County
Mike Hayes, Carson Valley Conservation District (CVCD)
Sean Hill, Sierra Nevada Journeys (SNJ)
Rob Holley, Dayton Valley Conservation District (DVCD)
Ron Kauble, USGS
Alexandra Lutz, DRI
Chris Mahannah, Churchill County
Kimra McAfee, Alpine Watershed Group
Dave Merrill, Vidler Water
Ramon Naranjo, USGS
Dorothy Palmer, Vidler Water
Darcy Phillips, River Wranglers
Eddy Quaglieri, Carson City Public Works
David Smith, USGS
Christy Sullivan, Lahontan Conservation District (LCD)
Rich Wilkinson, Carson Valley Conservation District CVCD

The meeting was called to order at 8:30 a.m. by Committee Member Schank. The meeting was held in the Conference Room of the Carson Water Subconservancy District, 777 E. William St., #110, Carson City, Nevada. A quorum of the Finance Committee was present.

Item #2 - Public comment: None

Item #3 - Discussion for possible action regarding approval of the minutes from the Finance Committee meeting on February 28, 2019: *Committee Member Griffith made the motion to approve the minutes of the Finance Committee meeting on February 28, 2019. The motion was seconded by Committee Member Workman and approved unanimously.*

Item #4 - Discussion regarding the Tentative General Fund FY 2020-21 Budget and hear presentations for proposed projects; review the Tentative Acquisition/Construction Fund FY 2020-21 Budget; and review the Tentative Floodplain Management Fund FY 2020-21 Budget:

Mr. James explained the General Fund Budget spreadsheet and the committee process. The committee will reach consensus on budget recommendations to be brought to full Board for action at the March 18, 2020 meeting. The funds granted need to be for projects enhancing the watershed. For clarification, FEMA & NDEP Grants have specific requirement and these funds cannot be diverted to other projects.

Director Schank asks about the focus of funding going to studies vs projects. Mr. James explains prior to his joining CWSD most of funding requests went to studies of storage on Carson River, but the past 21 years there has been push for projects and that has been the main focus. Committee Member Griffith says studies need to be included for projects. Director Workman asks if there are specific requirement to specific grants to which Mr. James responds yes, for instance most FEMA grants are for studies only. It's important to know that studies are valuable to future projects and our partners.

Director Schank states looking at Budget pie chart, our percentages of how we spend our funds look great! He suggests the amounts spent on programs and projects are over half our budget and should be moved next to each other on the pie chart to emphasize this. Discussion follows regarding distribution of funds for studies vs projects and gathering data. Mr. James points out the use of funds for administration show CWSD as an organization is lean.

Mr. James presented his proposed budgets and announced we will need to cut \$267,000 from the grant funding for FY 2020-21. Director Penzel asked Mr. James if we have any liability issues with Mud Lake. The answer is no, because we don't put water into the lake. Mr. James gave a brief history of CWSD and Mud Lake.

Turning back to the proposed 2020-21 budget and starting in the income section, Mr. James explained that the proposed county taxes are based on a conservative 3.5% increase over last year, but the official numbers from the state will not be available until March 25. The increase may be as high as 5.5%, but we will base our proposed tentative budget at 3.5%. He further explained grant income and interest income on the spreadsheet. On the expense side, he noted an increase in salary based the assumption of a 2% cost of living and a merit increase, benefit cost increases due to health insurance changes with staff and increase in PERS contribution.

Mr. James reviewed the continuing, multi-year projects and grants, as well as all the grant expenses that are offset by the grant income. He also noted that it is required by law that there be a minimum 4% of expenses in our ending balance.

Presentations of Proposed Projects

Carson River Projects:

Carson Valley Conservation District - Bioengineering, Maintenance and Debris Removal (Proposal #4)

Mike Hayes, Grant Manager/River Coordinator

Project to stabilize vertical cut banks as needed throughout the Carson Valley. These cut banks have migrated faster than usual because of the two flooding incidents that we experienced in 2017. The goal would be to use bio-engineering techniques to stabilize the soil, improve water quality and re-establish desirable vegetation. CVCD would like to continue our work on channel maintenance and woody debris removal throughout the Carson River. CVCD would like to partner with CWSD, CTWCD, NDWR and Douglas County to complete this river work by the summer of 2021. **Funding request: \$85,000**

Carson Valley Conservation District – Westwood Channel Clear, Snag, Maint & Bio (Proposal #5)

Rich Wilkinson, Grant Manager/River Coordinator

CVCD will attempt to restore river function along a 1.25 miles section of the East Fork of the Carson River. The overall goal of this project would be to use bio-engineering techniques to stabilize the soil, improve water quality and re-establish desirable vegetation for wildlife. In addition to bioengineering, CVCD will perform channel clearing, snagging and maintenance work in this area which was impacted by recent flooding events. The district considers this project a high priority since this area was severely impacted in 2017 and is close to the Westwood subdivision. CVCD would like to partner with CWSD, CTWCD, NDOW, USFWS, Douglas County and NDEP to complete this river maintenance project by the winter of 2021. **Funding request: \$100,000**

Dayton Valley Conservation District – Fort Churchill MCR 049 Bank Stabilization (Proposal #6)

Rob Holley, District Manager

MCR 049 is a streambank stabilization in the area of Fort Churchill State Historic Park, and in close proximity to the Buckland Ditch and Fort Churchill Road. The stabilization project is approximately 1,100 linear feet, to a height of 12', with two rock refusal trenches (at the up and downstream ends), nine stream barbs approx. 50' long by 8.5' tall, and erosion matting over 6,000 sq. ft. Additionally, 225 willow/cottonwood pole plantings will be utilized, along with reseeding of the bank and upland portions of the project. Immediately adjacent to the Buckland Ditch and Fort Churchill Roads, MCR 049 is vitally important in the protection of this critical pieces of infrastructure. In addition to infrastructure protection, MCR 049 will reduce and trap sediment, increase native vegetation, and promote improved water quality and wildlife habitat along this stretch of river. **Funding request: \$90,000**

River Wranglers- Conserve the Carson River Workdays (Proposal #1)

Darcy Phillips, Executive Director

River Wranglers (RW) continues the Conserve the Carson River Workdays (CCRWD) throughout the watershed. In the 2019 year, RW worked with 15 elementary schools (an increase of 3 schools) and 8 high schools in the watershed. RW worked with 6,655 people in the watershed, approximately 6,000 of which were students (as opposed to adults). Of these contacts, approximately 2,275 are unique individuals. Bringing these students to the river is an important part of our work - approximately 50% of the students we work with have never seen the river.

RW plans to continue the good work of prior years with tree wrapping, water quality testing, marking storm drains, cleaning up trash, and working on stream bank stabilization. RW is requesting \$6,000 per county for these projects. RW uses local conservation district employees to supervise and prep for these river projects. In addition, RW works with city, state, federal, and county partners. The remaining \$2,000 would cover administration and travel costs related to the grant. **Funding request: \$26,000**

Sierra Nevada Journeys – Family Watershed Nights for Carson River WS Communities (Proposal #2)

Sean Hill, Education Director

Funding from CWSD will serve over 500 children and their parents in communities within the Carson River Watershed with four community-building and educational events called Family Watershed Nights (FWN). FWNs invite K-8 students, their parents and siblings to attend a fun, family-friendly evening, which provides watershed education at the family level and reinforces STEM concepts in the classroom. Through hands-on activities, participants will gain a sense of ownership and stewardship for the health of their community watershed. **Funding request: \$3,278.88**

Alpine County Watershed Group- Upper Carson River Watershed Programs (Proposal #3)

Kimra McAfee, Executive Director

AWG's mission is to preserve and enhance the natural system functions of Alpine County's watersheds for future generations. For nearly 20 years, AWG has organized volunteers and inspired community 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. Through this project, AWG will staff: 1) involve local citizens in watershed stewardship; 2) plan and implement watershed monitoring and restoration activities; 3) recruit diverse stakeholders and strengthen community partnerships; and 4) support local watershed education and community outreach. **Funding request: \$25,000**

Lahontan Conservation District – Lower Carson River Clearing & Snagging (Proposal #7)

Christy Sullivan, District Manager

Project to prevent and minimize property loss and other damage during flood condition. Also to maintain a clear channel to enable citizens to utilize the river for recreation and maintaining river flow velocity to prevent stagnant pools that pose health risks. Includes removal of dead vegetation and debris, beavers and beaver dams and clearing brush and sediment back to original riverbank starting at Diversion Dam and continuing downstream. Removing sediment build up above and below Sheckler Bridge, McLean Bridge, Highway 50 Bridge, Highway 95 Bridge, Bafford Bridge and repairing eroded embankments along the river. **Funding request: \$20,000**

Director Schank remarks that maintenance of the Highway 50 Bridge is very important for flood issues in the area. A discussion follows regarding a need for a sediment removal/diversion structure study to reach a long-term plan to address these issues permanently.

Community Projects:

Lyon County Right-a-Way project (10)

Carson City Carson City Kings & Ash Canyon Watershed Control Plan (11)

TCID Diversion Dam Repairs (8)

Churchill County Park (9)

Vidler Water Company – Highway 50 Right-of-Way Acquisition Project (Proposal #10)

Dave Merrill & Dorothy Palmer

The proposed 2-3 Year project is to obtain the requisite right-of-way along the Highway 50 corridor for a future utility/water pipeline between Dayton and Silver Springs. The work would involve researching and identifying existing easements and utilities; determining the best route that benefits the most amount of people, the most cost effective and least disruptive; and obtaining approvals from the affected governmental entities such as the Bureau of Land Management and the Nevada Department of Transportation.

The right-a-way and future pipeline would further the connectivity between the two communities and allow for the modernization of water service. Once completed, the pipeline could serve the daily needs of the communities as well as assist in times of water shortage and emergencies. **Funding request: \$129,000**

Carson City – Kings & Ash Canyon Watershed Control Plan (Proposal #11)

Eddy Quaglieri, Water Utility Manager

The Quill Ranch Water Treatment Facility (Quill WTP) was completed and commissioned in 1991. The plant is supplied by three surface water sources when available; Ash Creek, King's Creek and springs, and the Marlette Hobart Water System owned and operated by the State of Nevada. The beautiful Kings and Ash Canyons are becoming more and more popular amongst the public. These two Canyons provide Carson City clean and sustainable drinking water within the Carson River Watershed as well as recreation opportunities for the public. There are now world renown mountain biking and hiking trails in the two canyons as well as increasingly amount public use. The purpose of this project is to develop a Watershed Control Plan to help keep the City's drinking water supplies safe and sustainable, while still allowing the public to enjoy the open spaces. The goal is to create a living document that outlines the many different uses and stakeholders of Kings and Ash Creeks as well as the certain safeguards needed in keeping the watersheds healthy. This project would be in compliance with the Nevada Division of Environmental Protection's Long Term 2 Treatment Rule that monitors for Cryptosporidium in source waters. **Funding request: \$25,000**

Truckee-Carson Irrigation District - Gates at Churchill CR Diversion Dam Repairs (Proposal # 8)

Rusty Jardine, General Manager

Improvement/Repair to four (4) Carson River gates at Carson River Diversion Dam, consisting of refurbishing the slide gates to original dimensions, replacing deteriorated wooden gate seats, and cleaning/recoating slide gates. This would enhance the operational ability of designated river gates at the Carson River Diversion Dam to safely convey as much as 2,000 cfs of water during flood operations as declared for the Newlands Federal Reclamation Project by the United States Bureau of Reclamation.

Funding request: \$100,000

Churchill County Parks & Recreation – Carson River Park Phase I (Proposal #9)

Jorge Guerrero, Director

Churchill County Parks and Recreation Department has acquired a 2.26 Acre property at the intersection of Sheckler Cut Off and the Carson River approximately 5 miles west of Fallon. The purchase was made possible using Question 1 Funds in 2005. In 2011, funds were awarded through the Carson Water Subconservancy District for a preliminary plan. In 2012 a plan was developed. The parcel includes approximately 420 feet of river frontage with another 140 feet possible. Funds being requested would be used to carry out the 1st phase of the overall project. The 1st phase would include demolishing of the current house on the property. The parcel would lend itself well to a day use picnic area use, interpretive site potential and river access for recreational use of the river. The main goal is to provide the community the ability to access the Carson River. **Funding request: \$10,537.50**

USGS:

USGS Middle Carson Groundwater Monitoring (Proposal #12)

Ron Kauble, Hydrologic Technician

4-Year Project with 50% Match: The proposed study is aligned with the USGS science strategy goal of informing the public and decision makers about the status of freshwater resources across the US and is consistent with the goal of the USGS Strategic Plan of providing water- resource managers with accurate, reliable, and impartial scientific information. The data will provide an increased understanding of groundwater levels in Eagle, Dayton, and Churchill Valleys and provide water managers with information on how water resources are affected by increased development. Project benefits include: (1) Groundwater-level observations in approximately 220 wells. Additional monitoring wells will be included near areas of proposed expansion with the USA Parkway Highway with the addition of at least 3 monitoring wells. Sites will be monitored at quarterly (61 wells) and annual (159 wells) frequency. The network will be dynamic and adjust to best monitor issues reported to the USGS during the project timeline. (2) The continued collection of bulk precipitation on McClellan Peak, Brunswick Canyon, Churchill Butte, and in the Virginia Range, for future use in potential groundwater model scenario development. (3) Publish and maintain data online for public use in the USGS National Water Inventory System database. **Funding request: \$61,000 (\$15,250 per year x4 years)**

USGS Carson Valley Groundwater Study (Proposal #13)

Ramon Naranjo, Research Hydrologist

3-Year Project with 35% Match: This proposed work documents (1) the status of water levels, arsenic and nitrate in groundwater, (2) evaluates the current well network efficacy for monitoring arsenic and nitrate in the Carson Valley, and (3) development of a web-based tool for tracking changes in hydrologic data collected in the Carson River watershed. The study will analyze seasonal and annual trends in water levels, nitrates and arsenic in the alluvial aquifer to provide an up to date assessment of water quantity and quality. This study also proposes to develop a web-based application to allow water managers and the public to get near-real time information on the status and trends of data as it is being collected for the Carson Basin. **Funding request: \$103,192 (\$31,105/\$41,079/\$30,964)**

New Projects:

Desert Research Institute - Stream Flow Analysis 1940-2019 (Proposal#14)

Alexandra Lutz

In 2009, DRI reviewed streamflow and climate records from 1940-2009 at locations in the Carson River system for CWSD. We propose revising the review up to include records from 2019. It has been an interesting ten years since the original review: the economy grew and population increased, the area experienced several years of below average precipitation, an above-average “pluvial” year, and some seemingly average years. The 2009 review reported statistically significant trends with respect to spring runoff occurring earlier and increase of temperatures during winter and spring. There were visually discernible trends for snow water equivalent (SWE) that were just outside the statistical significance threshold. The revised review will re-test all trends and include locations that started recording SWE in the early 2000s. The revised review will try to determine if trends are steady, accelerating, or decelerating over time. **Funding request: \$17,931**

No action was taken.

Item #5 - Make recommendations for the Tentative General Fund, Acquisition/Construction Fund, and Floodplain Management Fund FY 2019-20 budgets.

During a working lunch, Mr. James reviewed the Acquisition/Construction and Floodplain Management Funds with the committee.

Mr. James reminded the committee there needs to be a cut of \$267,000 from the funding requests. Based on further discussion the committee proposed the following adjustments and cuts:

- Reduce Carson Valley Conservation District/ Bioengineering (4) request by \$20,000
- Reduce Dayton Valley Conservation District FT Churchill Project (6) request by \$15,000
- Reduce TCID Diversion Dam Repairs (8) request by \$85,000

The Committee recommended not funding:

- Churchill County Park
- Carson City Ash/King Watershed Project
- DRI Stream Flow Analysis
- Right-A-Way Analysis in Lyon County
- USGS Carson Valley GW Study

The Committee also recommended adding \$145,000 to Acquisition/Construction Fund.

Director Schank made a motion that the Finance Committee recommend that the tentative budgets for the General Fund be approved as adjusted above. Committee Member Griffith seconded the motion which was unanimously approved by the Finance Committee.

For the Acquisition/Construction Fund, the Committee suggested that Lyon County submit a funding request for this Right-A-Way Analysis and see if Lyon County can contribute some funding.

Director Penzel made a motion that the Finance Committee recommend that the tentative budgets for the Acquisition/Construction Fund be approved as adjusted above. Director Schank seconded the motion which was unanimously approved by the Finance Committee.

For the Flood Management Fund, the Committee recommended using the funds in the account for Churchill County Flood Study. These funds were set aside to help cover the costs to do the new flood mapping study, but FEMA is covering all the costs.

Director Schank made a motion that the Finance Committee recommend that the tentative budgets for the Flood Management Fund be approved as adjusted above. Director Penzel seconded the motion which was unanimously approved by the Finance Committee.

Item #6 - Public comment: None

The meeting adjourned at 1:18p.m.

Respectfully submitted,
Catrina Schambra
Secretary to the Board

DRAFT

AGENDA ITEMS **S #4 & #5**

CARSON WATER SUBCONSERVANCY DISTRICT

TO: FINANCE COMMITTEE MEMBERS

FROM: EDWIN D. JAMES

DATE: MARCH 1, 2021

SUBJECT: Agenda Item #4 For Discussion Only - Review the Tentative General Fund FY 2021-22 Budget and hear presentations for proposed projects; review the Tentative Acquisition/Construction Fund FY 2021-22 Budget; and review the Tentative Floodplain Management Fund FY 2021-22 Budget

DISCUSSION:

Attached are the Tentative FY 21-22 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 \$712,952 and CWSD only has approximately \$514,000 available to grant out. The committee will have to cut approximately \$199,000 to balance the budget.

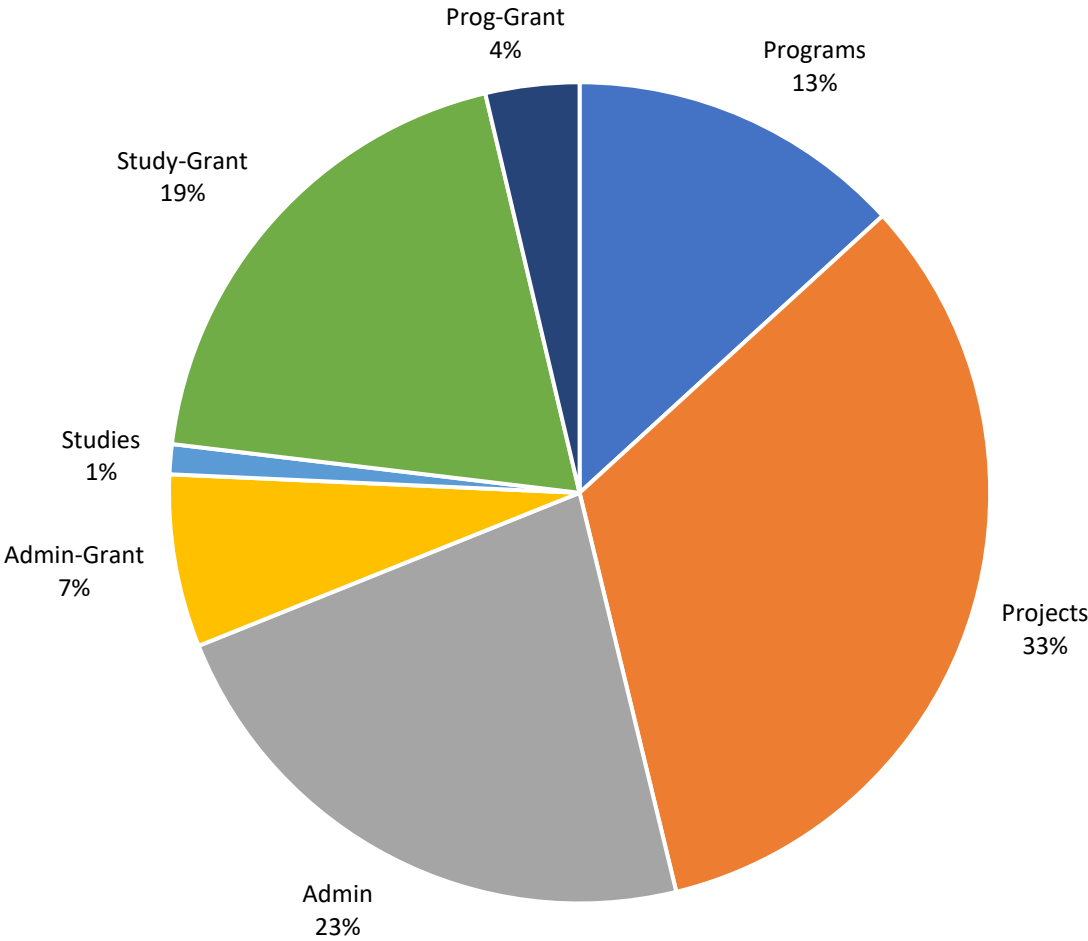
Included in the General Fund Tentative Budget is \$75,000 to be transferred to the Acquisition/Construction Fund.

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.

The projected income from Ad Valorem taxes is staff's best guess. The actual projected tax figures from the State will not be available until March 25.

STAFF RECOMMENDATION: Provide direction to staff to submit balance budgets for FY 2021-22 Tentative General Fund, Tentative Acquisition/Construction Fund, and Tentative Floodplain Management Fund to CWSD March Board meeting.

FY 2021-22 Proposed General Budget



CARSON WATER SUBCONSERVANCY DISTRICT General Fund

	Proposed Budget	Approved Final Budget	Projected Actual Budget	
	Jul '21 - Jun '22	Jul '20 - Jun '21	Jul '20 - Jun '21	Notes
Income				
5008-00 · Alpine County	\$11,246.47	\$10,897.74	\$10,897.74	3.2%
5009-00 · Churchill County Ad Valorem	\$225,992.40	\$218,984.88	\$218,984.88	3.2%
5010-00 · Lyon County Ad Valorem	\$193,245.11	\$187,253.01	\$187,253.01	3.2%
5011-00 · Douglas County Ad Valorem	\$637,559.92	\$617,790.62	\$617,790.62	3.2%
5012-00 · Carson City Ad Valorem	\$473,029.09	\$458,361.52	\$458,361.52	3.2%
5022-00 · Mud Lake Water Lease	\$55,500.00	\$51,765.00	\$55,000.00	1.5 % increase
5023-00 · Lost Lake Water Lease	\$0.00	\$0.00	\$0.00	
5031-00 · Interest Income - St Pool Reg	\$1,953.81	\$4,821.36	\$3,305.00	0.35 %
5050-13 · Watershed Coord Grant IV 19-22	\$73,300.00	\$164,800.00	\$127,000.00	Grant
5050-13 · NDEP Watershed Drone Work	\$0.00	\$18,165.00	\$17,903.47	Grant
5050-07 · CRC Donation	\$0.00	\$0.00	\$0.00	
Aquatic Trail Grant	\$85,000.00	\$0.00	\$5,000.00	Grant
5058-04 · 208 Water Quality LID	\$0.00	\$3,900.00	\$10,013.00	Grant
5060-00 · Misc. Income / Watershed Tour	\$6,000.00	\$6,000.00	\$20.00	
5082-00 · CASGEM	\$400.00	\$400.00	\$400.00	Grant
5083-00 · Alpine Co Mesa GW Study	\$300.00	\$0.00	\$300.00	Grant
6003-00 · FEMA - MAS # 9	\$0.00	\$81,420.00	\$58,530.00	Grant
6004-00 · USBR - water Market Study	\$2,860.00	\$53,078.00	\$50,000.00	Grant
6005-00 · FEMA - MAS # 10	\$152,907.00	\$319,590.00	\$299,040.00	Grant
6006-00 · FEMA - MAS # 11	\$388,470.00	\$0.00	\$215,051.00	Grant
Total Income	\$2,307,763.79	\$2,197,227.13	\$2,334,850.24	
Expense				
ADMINISTRATIVE EXPENSES:				
7015-00 · Salaries & Wages	\$430,280.00	\$413,300.00	\$398,000.00	
7020-00 · Employee Benefits	\$179,170.00	\$172,217.00	\$158,000.00	
7021-00 · Workers Comp Ins.	\$2,300.00	\$2,300.00	\$2,300.00	
7101-00 · Director's Fees	\$16,000.00	\$16,000.00	\$15,395.00	
7102-00 · Insurance	\$5,100.00	\$5,100.00	\$4,935.00	
7103-00 · Office Supplies	\$2,000.00	\$2,100.00	\$1,560.00	
7104-00 · Postage	\$1,250.00	\$1,050.00	\$1,200.00	
7105-00 · Rent	\$38,885.00	\$37,752.00	\$37,752.00	
7106-00 · Telephone	\$5,900.00	\$5,000.00	\$5,700.00	
7107-00 · Travel-transport/meals/lodging	\$16,000.00	\$16,000.00	\$4,600.00	
7108-00 · Dues & Publications	\$1,100.00	\$1,100.00	\$1,100.00	
7109-00 · Miscellaneous Expense	\$1,000.00	\$1,000.00	\$1,000.00	
7110-00 · Seminars & Education	\$1,500.00	\$1,500.00	\$1,500.00	
7111-00 · Office Equipment	\$3,000.00	\$3,000.00	\$3,000.00	
7112-00 · Bank Charges	\$50.00	\$50.00	\$50.00	
7115-00 · Accounting	\$16,800.00	\$16,800.00	\$16,800.00	
7116-00 · Legal	\$32,000.00	\$32,000.00	\$24,000.00	
Subtotal-Administrative Expenses	\$752,335.00	\$726,269.00	\$676,892.00	

CARSON WATER SUBCONSERVANCY DISTRICT

General Fund

Multi Year, Studies, and Grants PROJECTS:	Proposed Budget	Revised Final Budget	Projected Actual Budget	Notes
	Jul '21 - Jun '22	Jul '20 - Jun '21	Jul '20 - Jun '21	
7114-00 · Professional Outside Services	\$30,000.00	\$30,000.00	\$30,000.00	
7117-00 · Lost Lakes Expenses	\$14,000.00	\$13,500.00	\$13,500.00	
7118-00 · Mud Lake O & M	\$1,250.00	\$1,200.00	\$1,200.00	
7120-00 · Integrated Watershed Plan				
7120-07 · Watershed Tour	\$6,000.00	\$6,000.00	\$1,000.00	
7120-33 Watershed Coord Grant IV 19-21	\$13,252.00	\$49,200.00	\$36,894.00	Grant
7120-33 Watershed Coord Match IV 19-21	\$866.00	\$9,900.00	\$17,521.00	Grant
7126-00 · NDEP CR UAS Monitoring Drone	\$0.00	\$305.00	\$315.89	Grant
7404-00 · Noxious Weeds Control	\$75,000.00	\$75,000.00	\$75,000.00	
7406-00 · 208 Planning - LID	\$0.00	\$1,210.00	\$7,688.00	Grant
7433-10 · State Park Aquatic Trail	\$80,000.00	\$0.00	\$4,500.00	Grant
7437-00 · FEMA MAS #9	\$0.00	\$66,824.00	\$34,500.00	Grant
7437-00 · FEMA MAS #10	\$136,026.00	\$297,642.00	\$280,279.00	Grant
7437-00 · FEMA MAS #11	\$356,070.00	\$0.00	\$195,532.00	
7438-01 · USBR WaterSmart Reimbursed	\$2,860.00	\$53,078.00	\$50,000.00	Grant
7438-02 · USBR WaterSmart Match	\$0.00	\$0.00	\$0.00	AcquConst Fund
7500-00 · USGS Stream Gage Contracts	\$77,022.00	\$78,405.00	\$78,405.00	(16)
7508-03 · USGS Do. Co. & Lyon Co GW Collection	\$16,800.00	\$16,890.00	\$16,890.00	(17)
7524-01 · USGS GW level & WQ Churchill Co.	\$5,930.00	\$5,680.00	\$5,660.00	
7526-01 · USGS Middle Carson Groundwater	\$15,250.00	\$15,250.00	\$15,250.00	
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	
Subtotal Multi Year & On-going Projects	\$1,080,326.00	\$970,084.00	\$1,114,334.89	
Counties and River Projects	Notes			
7215-00 · Sierra NV Journeys - Family Night	\$4,250.40	\$3,279.00	\$3,279.00	(8)
7332-00 · Carson River Work Days	\$26,000.00	\$26,000.00	\$26,000.00	(9)
7337-00 · Carson River Restoration				
7337-20 · CVCD Genoa Bank Stabilize	\$0.00	\$70,000.00	\$70,000.00	
7337-25 · CVCD Bioengineering 2020-21	\$0.00	\$65,000.00	\$65,000.00	
7337-26 · CVCD Westwood Channel 2020-21	\$0.00	\$100,000.00	\$100,000.00	
7337-34 · DVCD Bank Stab & Dayton Bridge	\$0.00	\$40,000.00	\$40,000.00	
7337-36 · DVCD Fort Churchill	\$0.00	\$75,000.00	\$75,000.00	
7337-04 · LCD Clearing & Sand Bar Removal	\$0.00	\$20,000.00	\$20,000.00	
7600-05 · Alpine Co. Watershed Group.	\$25,000.00	\$25,000.00	\$25,000.00	(10)
7600-09 · CASGEM	\$5.00	\$5.00	\$2.00	
7600-10 · Mesa GW Measurement Project	\$2.00	\$0.00	\$1.00	
7640-09 · Lahontan Valley WTR Level (3 year)	\$14,500.00	\$20,000.00	\$20,000.00	(14)
7640-17 TCID Carson Diversion Dam 19-20 EXT	\$0.00	\$0.00	\$22,073.00	
7640-18 · Dixie Valley WTR Lvl measurement	\$23,000.00	\$21,000.00	\$21,000.00	
7640-19 TCID Carson Diversion Dam Gate	\$0.00	\$15,000.00	\$15,000.00	
Subtotal Carson River Projects	\$92,757.40	\$480,284.00	\$502,355.00	

CARSON WATER SUBCONSERVANCY DISTRICT

General Fund

New Projects	Proposed to the Finance Committee	Requested		Notes
Historic V & T Trail	\$5,000.00			(1)
Lower Ash Canyon Trail	\$11,469.15			(2)
Riverview Park Connector Trail	\$10,000.00			(3)
CVCD Bio and Debris Removal	\$75,000.00			(4)
CVCD West Fork Bank Stabilization	\$100,000.00			(5)
DVCD	\$100,000.00			(6)
Lahontan Conservation District	\$25,000.00			(7)
AVG Markleeville Creek Restoration	\$27,911.00			(11)
Alpine Fish and Game	\$50,000.00			(12)
Gardnerville Station Outlet Piping	\$70,000.00			(13)
TCID Diversion Dam	\$50,000.00			(15)
Carson River Basin Study	\$25,000.00			(16)
Total Expenses for New Projects	\$549,380.15	\$0.00	\$0.00	
Total Expenditures	\$2,474,798.55	\$2,176,637.00	\$2,293,581.89	
Net Ordinary Income	-\$167,034.76	\$20,590.13	\$41,268.35	
Other Incon Other Income				
Beginning Equity	\$558,232.35	\$680,768.00	\$661,964.00	*
Transfer from Acqu/Const. Fd to Gen Fd.	\$0.00	\$0.00	\$0.00	
	\$558,232.35	\$680,768.00	\$661,964.00	
Total Other Other Expenses				
8008-00 · Preliminary Planning	\$400,000.00	\$385,000.00	\$0.00	
Transfer from Gen. Fd. to Floodplain Fd.	\$0.00	\$0.00	\$0.00	
Transfer from Gen. Fd. to Acqu./Const. Fd.	\$75,000.00	\$145,000.00	\$145,000.00	
Total Other Expenses	\$475,000.00	\$530,000.00	\$145,000.00	
Net Other Income	\$83,232.35	\$150,768.00	\$516,964.00	
ENDING BALANCE	-\$83,802.41	\$171,358.13	\$558,232.35	
 * Based on the 2019-20 Audit 4 % of expenses	 \$114,991.94	 \$87,065.48	 \$91,743.28	

**CARSON WATER SUBCONSERVANCY DISTRICT
FLOODPLAIN MANAGEMENT FUND
FY 2021-22 Proposed Budget**

FLOODPLAIN MANAGEMENT FUND	Proposed Budget	Adopted Final Budget	Projected Actual Budget	Notes
	Jul '21- Jun '22	Jul '20 - Jun '21	Jul '20 - Jun '21	
Ordinary Income/Expense				
Income				
5032-01 · Interest Inc - Inv. Pool	\$1,164.19	\$3,025.06	\$2,500.00	Based on 0.35%
Total Income	\$1,164.19	\$3,025.06	\$2,500.00	
Expense				
7203-03 Floodplain Planning	\$300,000.00	\$300,000.00	\$0.00	
TCID Flood Project	\$0.00	\$35,000.00	\$35,000.00	
7206-03 Flood Project along SR 88 in Minden	\$0.00	\$40,000.00	\$40,000.00	
Total Expense	\$300,000.00	\$375,000.00	\$75,000.00	
Net Ordinary Income	-\$298,835.81	-\$371,974.94	-\$72,500.00	
Other Income/Expense				
Other Income				
8000-01 · Beginning Equity	\$332,627.00	\$382,074.00	\$405,127.00 *	
8001-01 · Transfer In-General Fund	\$0.00	\$0.00	\$0.00	
Total Other Income	\$332,627.00	\$382,074.00	\$405,127.00	
Ending Equity	\$33,791.19	\$10,099.06	\$332,627.00	

* Based on the 2019-20 Audit

**CARSON WATER SUBCONSERVANCY DISTRICT
ACQUISITION/CONSTRUCTION FUND
2021-22 Proposed Budget**

	Proposed Budget	Approved Final Budget	Projected Actual Budget
	Jul '21 - Jun '22	Jul '20 - Jun '21	Jul '20 - Jun '21
ACQUISITION/CONSTRUCTION FUND			
Ordinary Income/Expense			
Income			
5032-01 · Interest Inc - Inv. Pool	\$3,988.50	\$5,723.24	\$4,850.00
Total Income	\$3,988.50	\$5,723.24	\$4,850.00
Expense			
Upstream Storage Evaluation	\$0.00	\$33,648.00	\$34,000.00
Right-A-Way Lyon County Utility to Silver Springs	\$25,000.00	\$125,000.00	\$100,000.00
Construction Projects	\$800,000.00	\$715,000.00	\$0.00
Total Expense	\$825,000.00	\$873,648.00	\$134,000.00
Net Ordinary Income	-\$821,011.50	-\$867,924.76	-\$129,150.00
Other Income/Expense			
Other Income			
8000-01 · Beginning Equity	\$797,700.00	\$764,253.00	\$781,850.00 *
8001-01 · Transfer In-General Fund	\$75,000.00	\$145,000.00	\$145,000.00
Total Other Income	\$872,700.00	\$909,253.00	\$926,850.00
* Based on 2019-20 Audit			
Ending Equity	\$51,688.50	\$41,328.24	\$797,700.00

4% \$33,000

CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING

APPLICANT: Historic Virginia and Truckee Trail
 Name
P.O. Box 2402
 Address
Carson City County, NV 89703
 City County State Zip Code
treasurer@musclepowered.org 775.315.6763
 Email Telephone #

APPLICANT'S AGENT (if different from Applicant):
Donna N. Inversin
 Name
P.O. Box 2402
 Address
Carson City County, NV 89703
 City County State Zip Code
donnainversin@musclepowered.org 775.315.6763
 Email Telephone #

PROJECT NAME: Due-Diligence Study regarding bridging the Carson River at the south end of Bigelow Road

PROJECT LOCATION/ADDRESS: Bigelow Road Carson City and Heybourne Ditch Road
Douglas County, NV

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

The proposed scope of work to include the following tasks:

- A-Review Property Ownership
- B-Review Existing easements
- C-Floodplain overview, (not a flood study)
- D -Permitting overview
- E-Review Two potential alignment options

Maps attached

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

Building on existing surveys, this would be the first stage of work to assess the feasibility of building a twelve (12') foot paved or board path and bridge through the previously disturbed wetlands corridor over the Carson River that would connect the north and south sections of the Historic Virginia & Truckee Trail. This is the preferred route for logistical, user experience, and historical reasons. Completing this study will prepare us to pursue additional funding for further engineering studies and eventually implementation.

The Historic Virginia and Truckee Trail's mission is To create a route consisting of a network of multi-use paths and bike lanes that follows, wherever possible, the alignment of the Virginia and Truckee Railroad which will connect the five (5) counties of Northern Nevada, *Washoe, Carson, Douglas, Lyon and Storey*, for recreation, alternative transportation, to showcase the beautiful geography and nature of the high desert, rivers, canyons and mountains and for purposes of educating residents and visitors on the history of our native american populations, mining, ranching and farming.

For the last three (3) years an active stakeholders workgroup made up of federal, state, county, and city officials; along with representatives from nonprofits, private business and private citizens have worked together to develop this trail. To date they have officially named the trail, adopted an official logo, mapped the trail, completed the trail from the Carson River to the Truckee River, and set goals for the rest of the Trail. The Trail already shares and or connects to the Pony Express Trail, the American Discovery Trail, and the Tahoe Pyramid Trail, most of which then connect to the Tahoe Rim Trail which then connects to the Pacific Crest Trail. Bridging the Carson River will provide us with a connection to Minden, completing one of our major goals. Being able to create this path through the disturbed segments of wetlands and the bridge over the river will also provide us with the opportunity to bring visitors from all over the country and worldwide and introduce them to our beautiful area. We plan for interpretative signage educating the visitors on the Carson River and the wetlands, and the environmental benefits the Carson Watershed provides. How the native americans lived with the river and benefited from it. The Historic Virginia and Truckee Trail is anticipated to bring many tourists, and their dollars, to all five counties.

TOTAL ESTIMATED PROJECT COST: \$5,000

AMOUNT REQUESTED FROM CWSD: \$5,000

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.

Unfortunately we are very poor and have no funds to match.

ESTIMATED DATE PROJECT TO BEGIN: 1 month after being awarded the funds

ESTIMATED TIME TO COMPLETE PROJECT: Within 6 months of beginning the study
(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.

The study as envisioned does not require permitting. However the permitting Agencies are to be consulted in order to determine what permits may be required for construction of a future crossing.

OTHER INFORMATION: Provide any other information that may be important to the approval of this application. The proposed due diligence study is in keeping with the Recreation Goals of the Carson River Stewardship Plan and further will assist the general public with the understanding of the permitting process, best management practices to mitigate the erosion impacts on the river shore and floodplain concerns.

SIGNED:



NAME: Donna N. Inversin

TITLE: Treasurer, Muscle Powered; Citizens for a Walkable Bikeable Carson City

DATE: February 2, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

PATRICK CATES
County Manager

JENIFER DAVIDSON
Assistant County Manager



1594 Esmeralda Avenue
Minden, Nevada 89423

www.douglascountynv.gov
775-782-9821

OFFICE OF THE COUNTY MANAGER

January 28, 2021

Ed James
Carson Water Subconservancy District
777 E. William Street, Suite 110A
Carson City, NV 89701

Re: Support of the Historic V&T Trail grant request to the Carson Water Subconservancy District

Dear Mr. James,

Please accept this letter of support for the \$5,000 Grant request from the Historic V&T Trail. This trail project is being developed by a working group under the umbrella of Muscle Powered, a non-profit corporation. I have represented Douglas County as staff, collaborating with the work group for the last three years. Once the funds are awarded they will be used to pay for a Due Diligence Study for a crossing of the Carson River along the proposed Trail Route. The Historic V&T Trail concept calls for the development of a multi-use, non-motorized, eventually paved trail, that follows the Historic V&T Train route as far as feasible, from Carson City, north to Reno and from Carson south into Minden. From Carson another leg would connect east to Virginia City. The entire route approximates 64 miles in five counties.

More specifically, and pertinent to this request, is the crossing of the Carson River preferably along the historic route on Bigelow Road in Carson City across the river into the former alignment for Heybourne Road in Douglas County. The proposed crossing is consistent with the 2014 Douglas County Bicycle Plan. The study will bring into focus the opportunities and constraints for constructing a bridge to cross the river safely and in compliance with best management practices and multiple federal and county regulations. The study will also look at alternative sites that may be more beneficial and more suitable for a crossing including include the review for the best sites to assure maximum protection of the rivers banks and floodplain. The future crossing will provide the public a safe river crossing and a place to visit to observe the river and its flora and fauna.

Thanks for the opportunity to express support for this fantastic trail project, if you have any questions please do not hesitate to contact me at Lgranahan@douglasnv.us or (775) 781-3775.

Sincerely,

Lisa Granahan

Lisa Granahan
Economic Vitality Manager



CARSON CITY, NEVADA
CONSOLIDATED MUNICIPALITY AND STATE CAPITOL

January 29, 2021

Ed James
Carson Water Subconservancy District
777 E. William Street, Suite 110A
Carson City, NV 89701

Re: Support of the Historic V&T Trail funding request to the Carson Water Subconservancy District

Dear Mr. James,

Please accept this letter of support for the \$5,000 Funding request for the Historic V&T Trail. This project is being developed under the umbrella of Muscle Powered, a non-profit organization. The funds will be used to pay for a Due Diligence Study for a crossing of the Carson River along the proposed Historic V&T Trail route. The trail concept calls for the development of a multi-use, non-motorized trail that follows, as closely as possible, the route of the Historic V&T Train route from Carson City north to Reno and south to Minden. Another leg will connect Carson City with Virginia City. The entire route is approximately 64 miles and travels through five counties.

Recently the Regional Transportation Commission (RTC) approved the route through Carson City, and signage along the Carson City portion of the trail will be placed in 2021. This funding request will explore options for crossing of the Carson River south of Carson City. We look forward to the continuation of this trail south from Carson City to connect with Minden.

Thank you for the opportunity to express support for this fantastic trail project, and please do not hesitate to contact me at gberggren@carson.org or 775-283-7219 if you have questions.

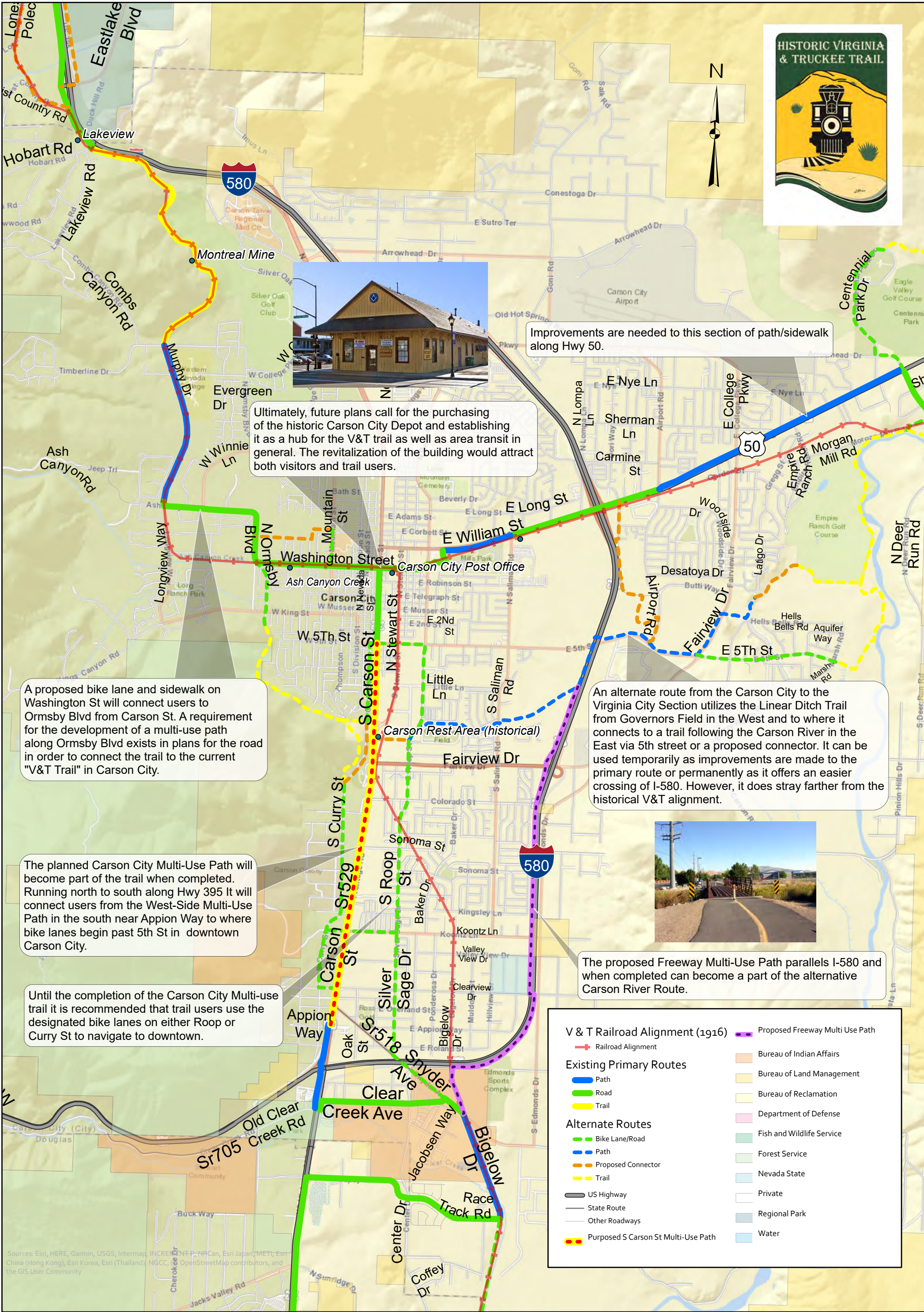
Sincerely,

A handwritten signature in black ink, appearing to read "Gregg Berggren".

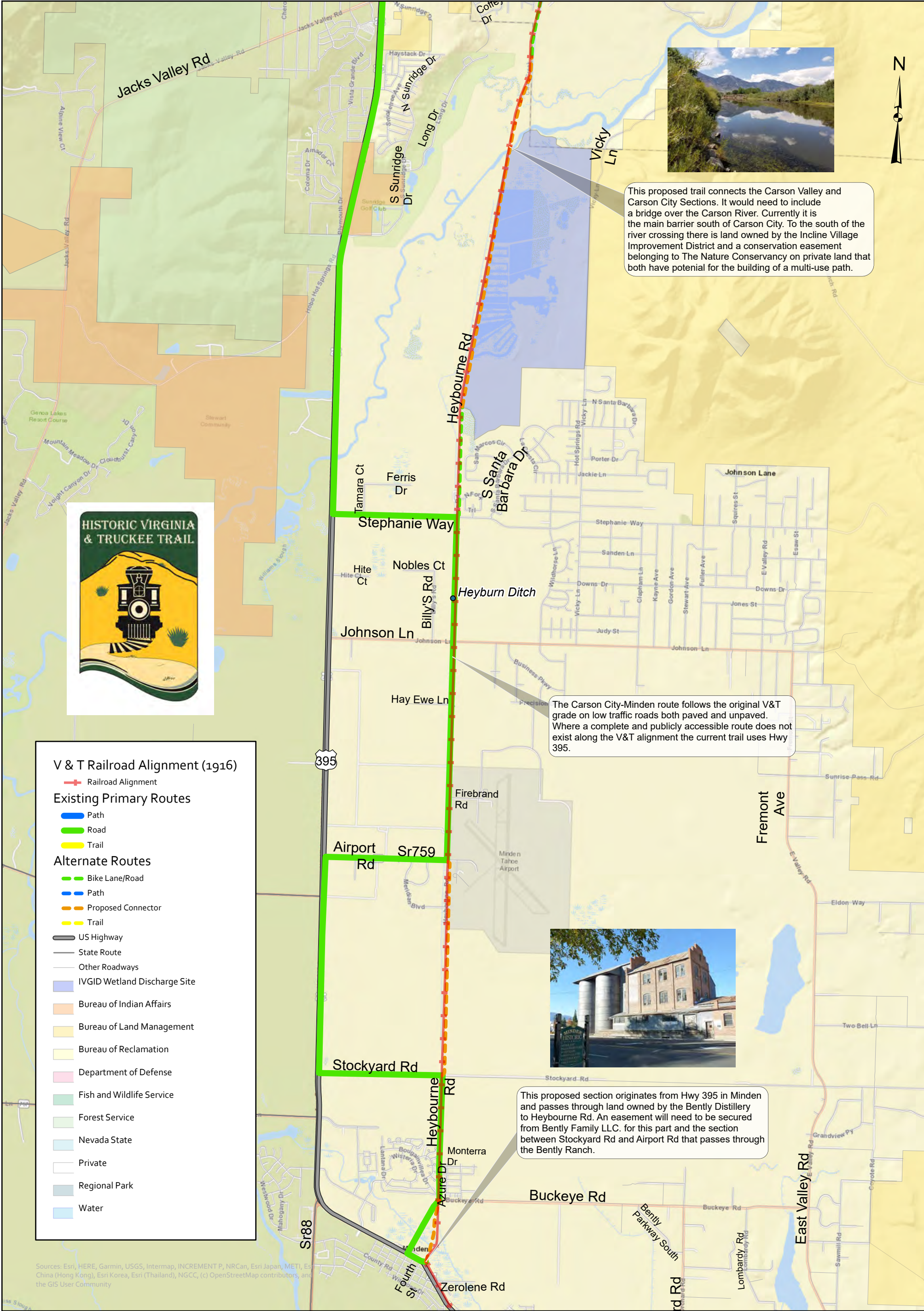
Gregg Berggren
Trails Coordinator



HISTORIC VIRGINIA & TRUCKEE RAILROAD TRAIL ALIGNMENT AND OPPORTUNITIES



HISTORIC VIRGINIA & TRUCKEE RAILROAD TRAIL ALIGNMENT AND OPPORTUNITIES





CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING



APPLICANT: Great Basin Institute

Name: Kevin Dose

Address: 16750 Mt Rose Highway

City County State Zip Code: Reno, Washoe County, NV, 89511

Email: kdose@thegreatbasininstitute.org

Telephone #: 775-760-1120

APPLICANT'S AGENT (if different from Applicant): Same as applicant

PROJECT NAME: Lower Ash Canyon Trail Maintenance Project

PROJECT LOCATION/ADDRESS: Eagle View Open Space, Carson City Nevada

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

Great Basin Institute, in partnership with Muscle Powered and Carson City Parks, Recreation and Open Space Department, is proposing to complete 6.5 miles of recreational trail maintenance within the Lower Ash Canyon Trail System. This system of recreational trails has seen increased use by a variety of users, including hikers and mountain bikers. Trail maintenance is required to reduce erosion, improve water quality in Ash Creek, improve user safety, and promote long term trail system sustainability.

Precipitation levels over the past several years have resulted in trails becoming overgrown with vegetation, forcing users to move toward the outside edge of the trail and causing erosion, also jeopardizing brush tangles with biker and hiker gear. Ruts and drainage features require maintenance to prevent further erosion. Trail maintenance will be completed using a combination of Muscle Powered volunteer contributions and support from a GBI Nevada Conservation Corps Trail Crew consisting of 5-AmeriCorps Members. Please refer to attached maps of the project area and trails to be maintained.

Trail maintenance projects would include:

- **Brushing** of vegetation to open trail corridors to prevent users from being pushed off of established trails. Brushing also opens sight lines to allow users to see upcoming terrain and other users, resulting in safer trail experience;
- **Removing loose rock** from trail tread to reduce erosion and keep users on established trails;
- **Repairing damage** to the outside edge of the trail, allowing water to properly flow off trail and prevent erosion and rutting of tread surface, and restoring back slope and hinge as needed;
- **Removal of debris** and sluff from the inside of the trail tread to prevent users from being pushed to the outside edge;
- **Clearing and maintaining drainage** features to promote more-local water shedding off of the trail surface and prevent erosion; and
- **Blocking** user created shortcuts and restoring impacted sensitive areas.

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The goal of this project is to improve water quality, safe recreational opportunities and economic benefits to the Carson City region. Well maintained trails will result in improved water quality and lower turbidity in the surrounding watershed through reduced run-off and erosion, sustainable drainage patterns, and keeping users on trail and out of sensitive habitat areas. Trails with clear sight lines provide a safer and more enjoyable recreational experience. Well maintained and enjoyable trails attract visitors and support local businesses and the economy.

TOTAL ESTIMATED PROJECT COST: \$25,013.95

AMOUNT REQUESTED FROM CWSD: \$11,469.15; please note this request is scalable upon approval. GBI and our partners will be grateful for support and welcome the opportunity to negotiate total award and associated scope of work.

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.

A total of \$5,032 in match will be generated through leveraging 25 hours of volunteer contributions from Muscle Powered for project coordination & oversight and 160 hours from GBI through facilitation of a trail maintenance skill training for eight new trail crew members.

In addition, GBI will pledge \$8,512.80 in In-Kind match using industry accepted differences in volunteer rates derived from the Independent Sector's hourly valuation of volunteer labor and GBI's AmeriCorps Volunteer hourly valuation equivalent.

Please refer to the attached budget for detailed project match contributions.

ESTIMATED DATE PROJECT TO BEGIN: August 2, 2021

ESTIMATED TIME TO COMPLETE PROJECT: November 30, 2021

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

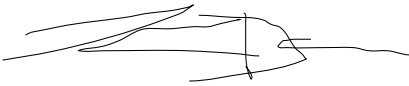
PERMIT REQUIREMENTS: If your project requires a permit, license and/or approval from a governmental agency to proceed, please provide the current status of each requirement. If approval has not been requested or is in progress, please provide the estimated date on which approval can be expected. Additional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

There are no permit requirements for this project.

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

The Great Basin Institute is an interdisciplinary field studies organization that promotes research, education, and conservation. GBI Trail Crews are supported by AmeriCorps funding. Upon successful completion of a field season, crew members earn education awards to support their participation in education and technical programs. GBI prioritizes individual development and works with crew members to foster stewardship, collaboration, communication, personal growth and leadership. Impacts

to the economy of Nevada due to COVID-19 cannot be understated. GBI's goal is to put the communities of Nevada back to work with the safety of our staff, field crews, partners and the communities we serve as the priority. The NCC provides participants with the opportunity to make meaningful contributions toward protecting and conserving Nevada's natural heritage, while also gaining valuable work experience in the natural resource management field. Participants gain valuable experience and training that translates to skills and certifications to contribute to future employment opportunities.


SIGNED: _____

NAME: Kevin Dose

TITLE: Deputy Director

DATE: February 5, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.



Great Basin Institute
Lower Ash Canyon Trail Maintenance Project
Project Budget



Category	Description	Rate	Units	Amount	Total
PERSONNEL					
	AmeriCorps Senior Crew Leader (1)	\$11.54	120 hours	\$1,384.80	
	AmeriCorps Crew Members (4)	\$8.46	480 hours	\$4,060.80	
				Personnel Total	\$5,445.60
BENEFITS					
	AmeriCorps Senior Crew Leader (1)	\$4.48	120 hours	\$537.60	
	AmeriCorps Crew Members (4)	\$3.80	480 hours	\$1,824.00	
				Benefits Total	\$2,361.60
TRAVEL					
	Crew PerDiem (5 people)	\$7.25	12 days	\$435.00	
				Travel Total	\$435.00
SUPPLIES					
	Crew equipment and safety gear	\$186.94	3 weeks	\$560.82	
				Supplies Total	\$560.82
OTHER					
	4x4 Heavy Duty Crew Truck (lease)	\$154.25	3 weeks	\$462.75	
	4x4 Heavy Duty Crew Truck (mileage)	\$0.60	360 miles	\$216.00	
				Other Total	\$678.75
DIRECT COSTS					\$9,481.77
INDIRECT COST		20.96%	\$9,481.77		1,987.38
TOTAL PROJECT FUNDS REQUESTED					\$11,469.15



Great Basin Institute
Lower Ash Canyon Trail Maintenance Project
Project Match



Category	Description	Rate	Units	Amount	Total
PERSONNEL					
	Muscle Powered - Project Coordination	\$27.20	25 hours	\$680.00	
	Great Basin Institute - Trail Training (8 members)	\$27.20	160 hours	\$4,352.00	
				Personnel Match Total	\$5,032.00
IN-KIND*					
	AmeriCorps Senior Crew Leader (1)	\$11.18	120 hours	\$1,341.60	
	AmeriCorps Crew Members (4)	\$14.94	480 hours	\$7,171.20	
				In-Kind Match Total	\$8,512.80
TOTAL PROJECT MATCHING FUNDS					\$13,544.80

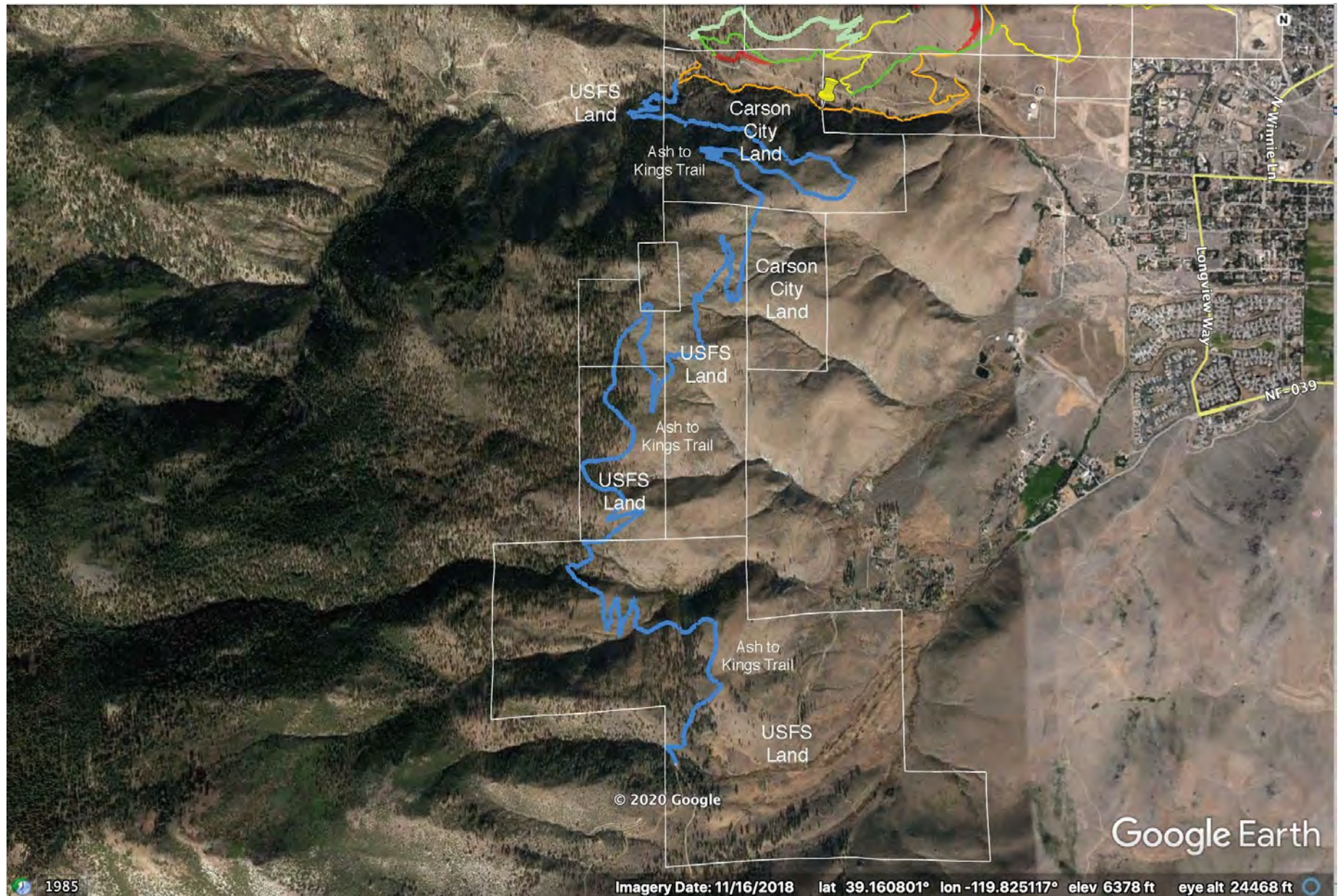
Priority Trails - Lower Ash Canyon Trail Maintenance Project



Priority Trails: The priority for this project will be to complete 6.2 miles of maintenance on the network of trails in Lower Ash Canyon. Maintenance will be completed only on public lands, no work will be done on private



Secondary Trails - Lower Ash Canyon Trail Maintenance Project



Secondary Trails: As funding and time permit, once maintenance is completed on Priority Trails, work will continue on an additional 7 miles of the Ash to Kings Trail. Maintenance will be completed only on public lands, no work will be done on private lands.





February 3, 2021

Mr. Shane Fryer, Watershed Program Specialist
Carson Water Subconservancy District
777 E. William St., #110A
Carson City, NV 89701

Subject: Collaborative Work Understanding & LOS for CWSD Funding Request

Dear Shane & CWSD Board,

Muscle Powered (MP), the Carson-City-based hiking, biking and trails non-profit, enthusiastically supports the funding request being made by Great Basin Institute (GBI) to Carson Water Subconservancy District (CWSD) for helping MP maintain Carson's extensive trail system. This letter stands with GBI's submission as our statement of support and to summarize our understanding of working collaboratively. GBI is making the request for their trail work, forming the project commitment with CWSD, and being compensated incrementally for services rendered. MP will oversee the project.

Letter of Support

MP believes in GBI as excellent partner to boost our trail maintenance work when we have much near-in trail building to do. MP has been at trail work for upwards of 20 years around Carson. MP designs, builds, maintains, and improves single-track multi-use dirt trails, and adopts certain worthy sustainable user trails, over many miles in the City, Carson Range, Prison Hill, and Centennial Park recreational areas. MP works under oversight of land management partners, like Carson City Open Space, USFS and Nevada State Parks who support our work and help protect MP. A notable MP project was Ash to Kings Trail west of Carson that drew national awards. MP is mobilizing to build Lincoln Bypass and Capital to Tahoe trails funded by the Recreational Trails Program.

GBI has a long history of trustworthy trail work with their Nevada Conservation Corps. GBI crews joined MP and Carson City Open Space during public workdays such as the community trail build of National Trails Day in 2019. GBI crews had a significant role in building a portion of Ash to Kings Trail, working alongside MP who designed and also built another section of Ash to Kings Trail after extensive community participation in developing trail user needs. GBI is project leader with the BLM and MP for pieces of the NEPA Environmental Assessment needed for new MP-proposed trails in Centennial Park.

MP and GBI know one another and how to work together on trails. We have agreed for the CWSD project on a working relationship for maintenance of foothill trails on public lands. Lands are managed by Carson City Open Space, USFS, and others, and include Eagle View Open Space, Nevada State Lands, Western Nevada College, Ash Canyon, and possibly portions of Ash to Kings Trail, all where MP has permission. MP forms no contractual tie with CWSD. We pledge here to help GBI get the work done as below.

Collaborative Work Understanding

For the CWSD project, MP proposes to oversee trail maintenance to be performed by GBI. We have reviewed GBI's funding request and project approach. We are satisfied this will be a successful collaboration. MP commits our Crew Leads with the expertise and local knowledge of trail conditions to guide GBI in their maintenance focus.

GBI proposes best-effort maintenance on selected trail runs to be prioritized by MP before GBI crew are dispatched in summer 2021, after MP has confirmed trail segments needing various repairs. GBI can join trail reconnaissance with MP to help locate and understand specific needs. Crew safety will be approached with standard procedures.

MP will oversee the work, set requirements, monitor trail work, join GBI when it makes sense (subject to MP COVID-19 strictures), and approve invoices following our quality inspections as work completes. If the work encounters special challenges that dampen GBI productivity, MP reserves the right to redirect work to get the most from the project.

MP offers trail-related services free of charge and accepts no compensation from GBI. Each organization has various means of liability and Workers' Comp protections. MP attests to active Volunteer Service Agreements or Memoranda of Understanding with land managers and MP permission to work on these managed lands. No private land will be affected by this project. If funding is awarded, we'll be most grateful for GBI's help!

Yours truly,

A handwritten signature in black ink, appearing to read "Pete K. Doenges".

Pete Doenges
Trails Coordinator
801-641-0114

Muscle Powered
PO Box 2402
Carson City, NV 89702



CARSON CITY, NEVADA

CONSOLIDATED MUNICIPALITY AND STATE CAPITOL

February 3, 2021

Carson Water Subconservancy District (CWSD)
777 East William Street, Suite 110A
Carson City, NV 89701
775-887-7450

Subject: Support Letter for the Great Basin Institute's funding request for Lower Ash Canyon Trail Maintenance Project

CWSD Grant Committee Members,

The Carson City Parks, Recreation & Open Space Department would like to offer our support for the Great Basin Institute's funding request for the Lower Ash Canyon Trail Maintenance Project.

This project will complete maintenance on 6.5 miles of recreational trails in the lower Ash Canyon area. These trails, which are identified in our Unified Pathways Master Plan, have recently been brought into Carson City's trail system through a land acquisition and agreements with two other landowners. Trail maintenance is required to improve user safety, reduce erosion, improve water quality in Ash Canyon Creek and promote long term trail system sustainability.

Carson City has a close working relationship with Muscle Powered, and through a Memorandum of Understanding their volunteers perform maintenance activities on many much of our trail system. They are seeking the help of the Great Basin Institute to augment their volunteer capacity in order to bring these newly acquired trails up to our standards of safety and sustainability. The Great Basin Institute has performed work for our Department in the recent past and we trust their ability to perform quality trail maintenance.

Please do not hesitate to contact me if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregg Berggren".

Gregg Berggren
Trails Coordinator





NEVADA
STATE CAPITOL

CARSON CITY,

CONSOLIDATED MUNICIPALITY AND

3

February 2, 2021

Carson Water Subconservancy District
Attn: Ed James
777 E. William St., #110A
Carson City, NV 89701

Subject: Funding Request for the Empire Ranch to Riverview Park Connector Trail Improvement Project.

Dear Mr. James and Carson Water Subconservancy District Finance Committee,

Attached you will find a funding request for **\$10,000** for a project that seeks to make improvements to the Empire Ranch/Riverview Park Connector Trail. This project will make much-needed improvements to this non-motorized trail in order to bring it up to the standards of adjacent trails. Improvements will include placement of a compacted road base, minimum 10-foot width, and drainage enhancements to make the trail sustainable.

Carson City is committed to providing safe and responsible access to the river for all of our residents, including those with disabilities and families with small children. We want our residents to be able to enjoy, appreciate, and learn about the value of the Carson River to our community. Once completed, this project will enable residents and guests of all abilities to walk or ride a bicycle for five miles along the west side of the Carson River as it flows through Carson City.

We thank you for your consideration for this funding request. If you have any questions or comments regarding this request please contact Gregg Berggren, Trails Coordinator at (775) 283-7219 or gberggren@carson.org.

Sincerely,

A handwritten signature in blue ink that reads "Nancy Paulson".

Nancy Paulson
Carson City Manager



CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING

APPLICANT: Carson City Parks, Recreation & Open Space Department
3303 Butti Way, Building 9
Carson City, NV 89701

Contact: Gregg Berggren
Trails Coordinator
gberggren@carson.org
775-283-7219

APPLICANT'S AGENT (if different from Applicant): Same as applicant

PROJECT NAME:

Empire Ranch to Riverview Park Connector Trail Improvement

PROJECT LOCATION/ADDRESS:

Approximately ¼ mile east from the east end of Hells Bells Road in Carson City.
Connector trail is located between the Empire Ranch Trail and Riverview Park.
APN 1068102
Latitude 39.165658, Longitude -119.705354

PROJECT DESCRIPTION:

Our project seeks to make improvements to approximately 0.2 miles of non-motorized trail between the Empire Ranch Trail and Riverview Park. This segment of trail is an old abandoned roadbed and the tread base is soft sand. The sand is very difficult to walk or ride a bicycle through, which creates two problems: 1) limitations on accessibility, especially for those with mobility issues, and 2) users go off-trail to seek a firmer surface and thereby create "use" trails which damage riparian vegetation and cause erosion.

The proposed improvements will create a trail that is a minimum of 10' wide with a surface of Type 2 Gravel Base compacted to a minimum of 4". It will be crowned and shaped for drainage and will be compatible with trails that it connects from the north and south. This will complete a continuous five-mile trail along the Carson River from Morgan Mill to the Mexican Dam that will be highly accessible to a variety of non-motorized users, including families with small children and strollers, and those with mobility issues.

PROJECT GOALS AND BENEFITS:

Carson City, through our Parks and Open Space Program, has preserved a majority of the river corridor through Carson City, with benefits that include protection of the floodplain, conservation of wildlife habitat, and recreational opportunities. We are committed to providing sustainably built non-motorized trails that protect water quality through reduced erosion and proper drainage, and which discourage creation of social trails.

We believe that access for everyone helps to promote a healthy community and economy, increases awareness of the river, and encourages protection of the river and our public lands. This five-mile river trail will provide the perfect location to place interpretive panels and conduct programs that will further increase understanding of the river and the watershed.

TOTAL ESTIMATED PROJECT COST: \$19,000

AMOUNT REQUESTED FROM CWSD: \$10,000

SOURCE OF OTHER FUNDS: The Carson City Parks, Recreation & Open Space program will provide all matching funds.

ESTIMATED DATE PROJECT TO BEGIN: July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: November 30, 2021

PERMIT REQUIREMENTS: No permit required for this project.

OTHER INFORMATION:

- List of Attachments:
 - Attachment 1 – Location Map
 - Attachment 2 – Carson River Trail Map
 - Attachment 3 – Project Location Detail Map
 - Attachment 4 – Photos
 - Attachment 5 - Cost Estimate
 - Attachment 5 – Letter of Support from Muscle Powered

SIGNED: Gregg Berggren

NAME: Gregg Berggren

TITLE: Trails Coordinator

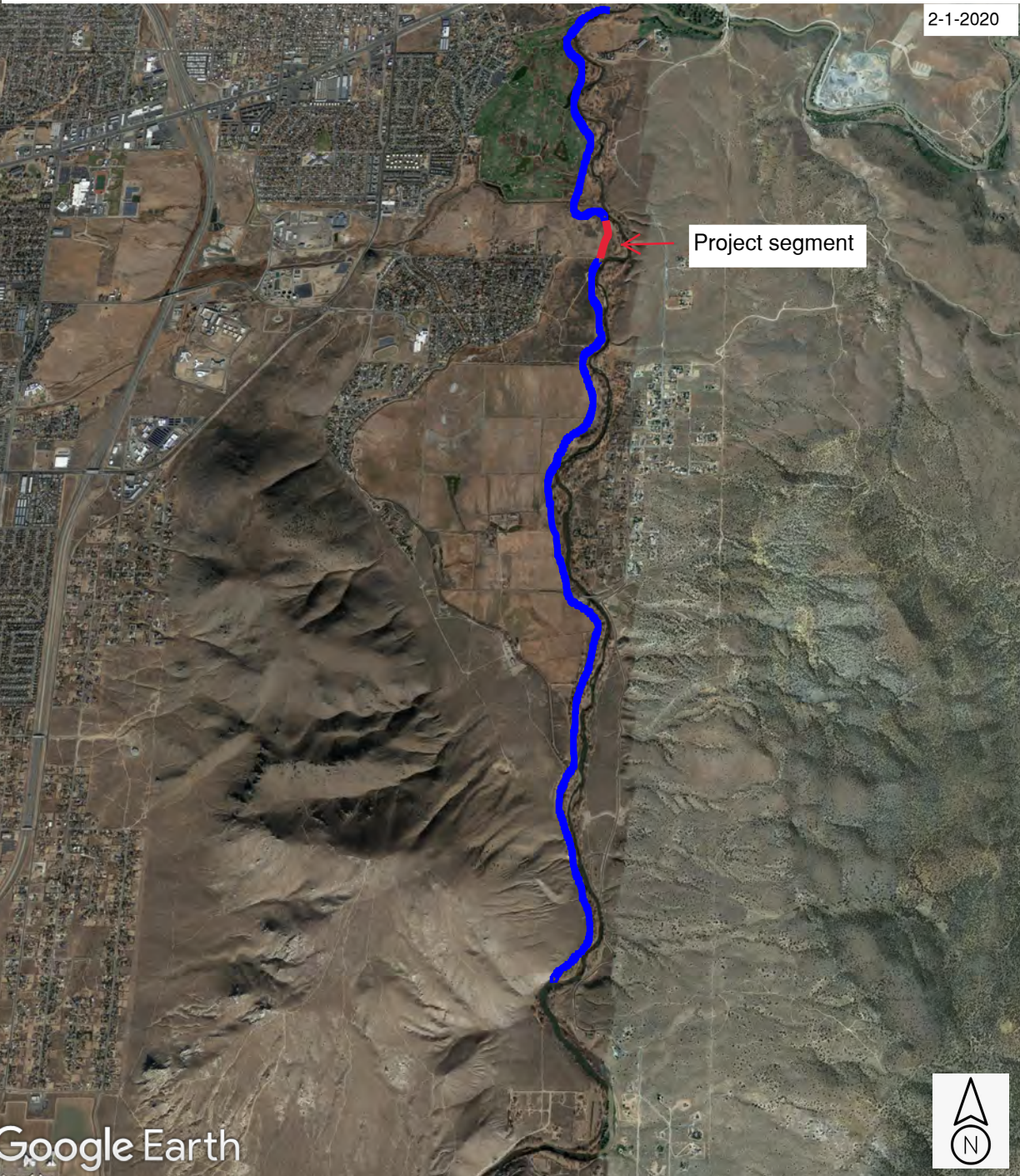
DATE: 2/4/2021

**THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY
AND/OR ALL APPLICATIONS FOR FUNDING.**

Map of Carson City River Trail

This trail connects several existing trails to complete a continuous 5-mile non-motorized path along the west side of the Carson River.

2-1-2020



Project segment



Map showing detail of Empire Ranch to Riverview Park Trail Improvement Project

2.1.2020



Trail Improvement Project

Latitude 39.165658, Longitude -119.705354

Carson
River

Riverview Park



th

Project Photos



Empire Ranch to Riverview Park Trail on 1-31-2020.



Social trails are being created around existing trail.



Example of existing trail in Riverview Park.

This is what the Empire Ranch to Riverview Park Trail will look like after improvements.

SIERRA TRAIL WORKS**Estimate**

NV Contractors License #81310, A-7, A-4
 PO Box 14952
 Reno, NV 89507
 Phone: 775-233-5419
 Fax: 775-324-1530

DATE: 2/4/2021
INVOICE # Estimate

Customer:

Gregg Berggren
 Carson City Parks, Recreation & Open Space
 3303 Butti Way #9
 Carson City, NV 89701

**Project:** Empire Ranch-Riverview Park Connector Trail Repairs

DESCRIPTION						AMOUNT
Line	Description	Quantity	Units	Rate	Taxable	
1	Type 2 Gravel Base with moisture added, delivered to site. Quantity sufficient to resurface approximately 1000' of 10' wide trail to a compacted depth of 4"+.	1	LS	\$ 9,000.00	N	\$ 9,000.00
2	Labor and Equipment to spread, grade to crown shape for drainage, and compact.	1	LS	\$ 9,500.00	N	\$ 9,500.00
3	Mobilization, Demob, BMP's, Weed sanitization	1	LS	\$ 500.00	N	\$ 500.00
4						
SUBTOTAL						\$ 19,000.00
TAX RATE						8.265%
TAX (est)						\$ -
TOTAL						\$ 19,000.00

OTHER COMMENTS

- Prices shown are inclusive of licenses, insurance, permits, BMP's, labor, equipment and materials required to complete construction.
- This is an estimate for grant application purposes only and should not be considered a bid.
 Final amount may change based on the scope of work and other specifications in the bid documents.

If you have any questions about this estimate, please contact Kevin Joell at (775) 233-5419



February 2, 2021

Carson Water Sub conservancy District (CWSD)
777 East William Street, Suite 110A
Carson City, NV 89701
775-887-7450

Subject: Muscle Powered; Letter of Support for Carson City's grant application to the CWSD for the Empire Ranch to Riverview Park Connector Trail Improvement Project.

CWSD Grant Committee Members,

On behalf of Muscle Powered – Citizens for a Walkable and Bikeable Carson City - please accept our support for Carson City's grant application to the CWSD for the Empire Ranch to Riverview Park Connector Trail Improvement Project.

This project will make much-needed improvements to a segment of trail along the Carson River and has been previously identified in the Carson City Unified Pathways Plan. Once completed, Carson City will have a five-mile long trail along the west side of the Carson River that will be accessible to people of all abilities. We believe that the Carson River is a wonderful asset for all of our residents and access for everyone is important. We also want to be mindful of protecting the riparian habitats along the river. Sustainable trails along the Carson River offers a continuation to educate visitors about Carson's watershed through responsible recreating.

Within our capacity, Muscle Powered stands ready to support this project. Please do not hesitate to contact me if you have questions.

Sincerely,

Chelsea Kincheloe

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

4

APPLICANT: Carson Valley Conservation District

Name

1702 County Road Suite A

Address

Gardnerville

Douglas

Nevada

89423

City

County

State

Zip Code

richard.wilkinson@nv.nacdnet.net

(775)782-3661

Email

Telephone #

APPLICANT'S AGENT (if different from Applicant):

Mike Hayes

Name

1702 County Road Suite A

Address

Minden

Douglas

Nevada

89423

City

County

State

Zip Code

mike.hayes@nv.nacdnet.net

(775)782-3661 Extension 3820

Email

Telephone #

PROJECT NAME: Carson River Bioengineering, Maintenance and Debris Removal

PROJECT LOCATION/ADDRESS: Carson River from the Powerdam to the Cradlebaugh Bridge to include the East and West Forks and Sloughs (Surface Water Conveyance System)

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

The Carson Valley Conservation District will try to stabilize vertical cutbanks as needed throughout the Carson Valley. These cutbanks have migrated faster than usual because of the two flooding incidents that we experienced in 2017. The goal would be to use bio-engineering techniques to stabilize the soil, improve water quality and re-establish desirable vegetation. The district would like to continue our work on channel maintenance and woody debris removal throughout the Carson River. The district would like to partner with CWSD, CTWCD, NDWR and Douglas County to complete this river work by the summer of 2020.

Please see attached Location Map

Please see attached pictures

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the

project is implemented. Additional sheets may be attached.

The project will help minimize erosion, improve water quality, re-establish desirable vegetation improve river function within the project reach. The project will help trap sediment and provide for natural recruitment of vegetation along the riverbank. The willow plantings will help hold the soil and provide a head start on the re-establishment of vegetation of the riverbank. The removal of large woody debris will allow for improved conveyance of river flows and reduce the negative impacts to infrastructure downstream.

TOTAL ESTIMATED PROJECT COST: \$130,000.00
AMOUNT REQUESTED FROM CWSD: \$75,000.00

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.

PROJECT PARTNERS:

<u>Carson Truckee Water Conservancy District</u>	<u>\$15,000.00 Pending Fall</u>
<u>Carson Water Subconservancy District</u>	<u>\$75,000.00 Pending</u>
<u>Nevada Department of Wildlife</u>	<u>\$15,000.00 Pending Fall</u>
<u>CVCD Landowners (In-kind) Supplies</u>	<u>\$25,000.00 Approved</u>
<u>Totals: \$130,000.00</u>	

ESTIMATED DATE PROJECT TO BEGIN: Construction to begin in the late summer or early fall of 2021

ESTIMATED TIME TO COMPLETE PROJECT: Final reporting will be by the early spring of 2022

(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.

No permits will need to be applied for since we will be doing all of our work by hand without the need of any large equipment.

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

SIGNED:



NAME:

MIKE HAYES

TITLE:

COORDINATOR

DATE:

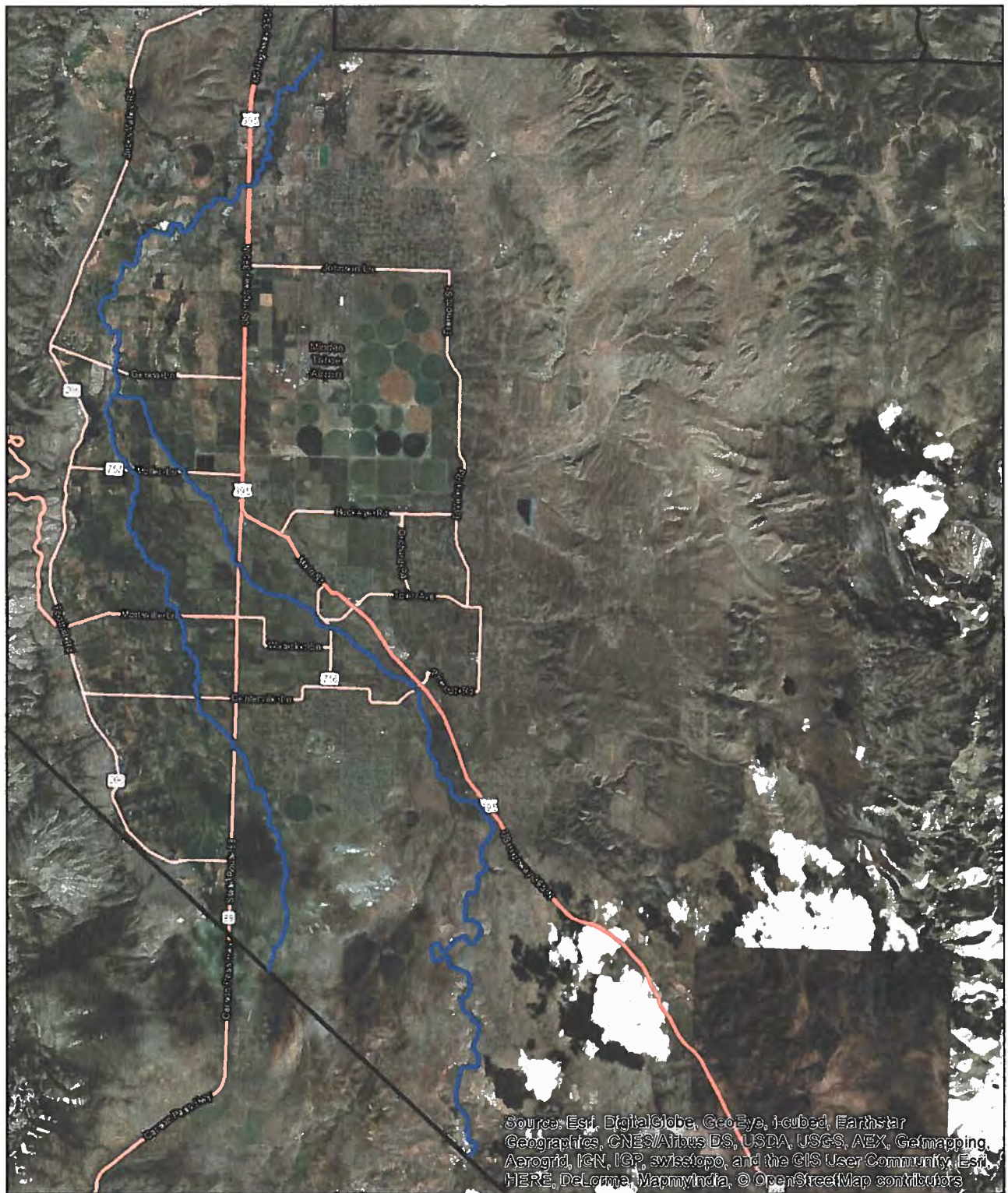
2.3.2021



Burning flood debris and slash materials near Lutheran Bridge.



Crew installing a vertical willow mattress at the Kermin track



Legend

— Carson River 200 Foot Buffer; Direct APE

0 1 2 3 4 5 Miles



0 2 4 6 8 10 Kilometers

Proposed Bioengineering, river channel maintenance and debris removal

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

5

APPLICANT: Carson Valley Conservation District

Name

1702 County Road Suite A

Address

Gardnerville

Douglas

Nevada

89423

City

County

State

Zip Code

richard.wilkinson@nv.nacdnet.net

(775)782-3661

Email

Telephone #

APPLICANT'S AGENT (if different from Applicant):

Richard Wilkinson

Name

1702 County Road Suite A

Address

Minden

Douglas

Nevada

89423

City

County

State

Zip Code

richard.wilkinson@nv.nacdnet.net

(775)782-3661 Extension 3830

Email

Telephone #

PROJECT NAME: Genoa West Fork Carson River Bank Stabilization Phase 2

PROJECT LOCATION/ADDRESS: Latitude: 39° 1'47.11"N

Longitude: 119°49'1.70"W

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

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

The Carson Valley Conservation District will attempt to restore vertical cutbanks that are approximately $\frac{3}{4}$ of a mile long and 12 to 15 feet high. This unstable section of river has migrated into local agricultural fields causing impacts to local producers. The overall goal of this project would be to use a combination of traditional rip-rap and bio-engineering techniques to stabilize the soil, improve water quality and re-establish desirable vegetation for wildlife. The district considers this project a high priority since this area was severely impacted by recent flooding events in 2017. The district would like to partner with CWSD, CTWCD, NDOW, USFWS, Douglas County and NDEP to complete this river restoration project by the spring of 2020.

- Generate right of entry for landowner access already completed
- Complete formal survey of site after Spring runoff
- Engineered and stamped plan set already completed
- Apply for permits already completed
- Install rock key trenches or log veins phase 2 projects
- Place vertical willow bundles, willow mattress, COIR fabric and plants
- Place rock rip-rap along toe of bank phase 2 projects
- Re-seed disturbed areas as needed

Please see attached location map

Please see attached conceptual design

Please see attached project timeline

Please see attached pictures

Please see attached stamped engineer plans

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The project will help minimize erosion, improve water quality, re-establish desirable vegetation, and improve river function within the project reach. The project will help trap sediment and provide for natural recruitment of vegetation along the riverbank. The willow plantings will help hold the soil and provide a head start on the re-establishment of vegetation of the riverbank.

TOTAL ESTIMATED PROJECT COST: \$650,000.00
AMOUNT REQUESTED FROM CWSD: \$100,000.00

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.

PROJECT PARTNERS:

<u>Carson Truckee Water Conservancy District</u>	<u>\$25,000.00 Pending Fall</u>
<u>Carson Water Subconservancy District</u>	<u>\$100,000.00 Pending</u>
<u>Nevada Department of Environmental Protection</u>	<u>\$150,000 Approved</u>
<u>Nevada Division of Water Resources</u>	<u>\$150,000 Approved</u>
<u>Douglas County</u>	<u>\$100,000.00 Approved</u>
<u>Nevada Department of Wildlife/USFWS</u>	<u>\$25,000.00 Pending Fall</u>
<u>Nevada Dream Tags</u>	<u>\$50,000.00 Pending Fall</u>
<u>CVCD Landowners (In-kind & Cash) Supplies</u>	<u>\$50,000 Approved</u>
	<u>Totals: \$650,000.00</u>

ESTIMATED DATE PROJECT TO BEGIN: Engineering, Design to begin in the late summer or early fall of 2019 Please see the attached project timeline.

ESTIMATED TIME TO COMPLETE PROJECT: Final reporting will be by the June 30 of 2022

(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.

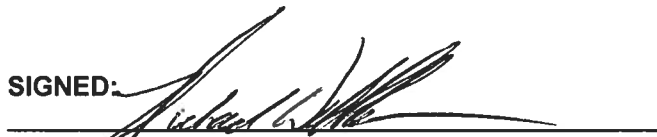
United States Army Corp. of Engineers
Nevada Department of Environmental Protection
Nevada Division of State Lands
State Historic Preservation Office
CVCD Landowner Access

Nationwide Permit
Working Waterways Permit
Right of Entry Permit
Archeological Section 106
Owners Right of Entry Permit

All these permits will start once the district receives adequate funding for the bank stabilization project. Since the CVCD only operates on soft funds we cannot justify starting the permit request process until we know that we have the project funded.

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

SIGNED: _____



NAME: _____

Richard Wilkins

TITLE: _____

Grant Manager / River Coordinator

DATE: _____

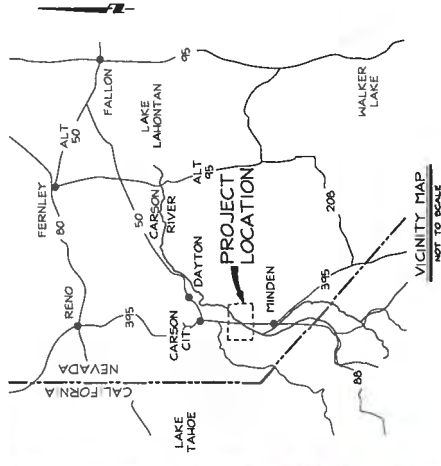
02-03-2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

PROJECT TIMELINE

Effective Date: February 2, 2021

Task	Spring 2021	Summer 2021	Fall 2021	Winter 2021	Spring 2022	Summer 2022
Start Project Stakeholder Process	XXX					
Start project review and permitting				XXX		
Landowner Notification and gaining right of entry access	XXX					
Photo Monitoring establish waypoints	XXX	XXX	XXX	XXX	XXX	XXX
Cross Sectional Surveys future Projects					XXX	
Submit draft plan and finalize permits					XXX	
Start bidding Process	XXX	XXX	XXX	XXX	XXX	
Construction & Stakeout						XXX
As-built Surveys						XXX
Project Management and Administration	XXX	XXX	XXX	XXX	XXX	XXX
Quarterly Reports and invoicing	XXX	XXX	XXX	XXX	XXX	XXX
Final Report						XXX

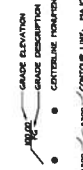
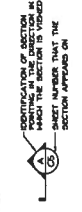
[illegible]

- C COVER SHEET
- C2 NOTES, LEGEND & ABBREVIATIONS
- C3 RUNNING RIVER RANCH SITE PLAN
- C4 PLYING J RANCH SITE PLAN - LOCAL
- C5 PLYING J RANCH SITE PLAN - LOCAL
- C6 PLYING J RANCH SITE PLAN - LOCAL
- C7 CHARNERY RANCH SITE PLAN - LOCAL
- C8 CHARNERY RANCH SITE PLAN - LOCAL
- C9 CHARNERY RANCH SITE PLAN - LOCAL
- C10 HOLBROOK RANCH SITE PLAN
- C11 DETAILS
- C12 DE-WATERING & TEMPORARY EROSION

APR 1941-01-007 BOLDING, SUZY
APR 1941-01-003 DUPONT, JOHN # HEAVEN, LAURIE
APR 1941-34-002-000 FLYING J BUNCH LLC
APR 1941-35-002-001 FLYING J BUNCH LLC
APR 1941-35-002-001 CHARNETT, HOWARDS # ALDA CS
APR 1941-35-002-002 CHARNETT, HOWARDS # ALDA CS
APR 1941-35-002-002 CHARNETT, HOWARDS # ALDA CS
APR 1941-35-002-002 CHARNETT, HOWARDS # ALDA CS
APR 1941-35-002-003 HOLMWOOD BEEF # CATTLE CO.

PROPERTY LINES SHOWN ARE APPROXIMATE ONLY
AND DO NOT REPRESENT A BOUNDARY SURVEY

[illegible]

**MEN
EXISTING**

WASHINGTON.....AMERICAN ASSOCIATION
HIGHWAY AND TRANSPORTATION
OFFICIALS

[illegible]

GENERAL

1. ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES AND/OR STRUCTURES ADJACENT TO IMPROVEMENTS DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEVIATION AND BIDDING PROCEDURES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY DISCREPANCIES IN THE IMPROVEMENT PLAN.
5. CONTRACTOR SHALL OBTAIN A PERMIT AND NO MO FROM THE STATE OF NEVADA, PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK SITE, RESOLVE CONSTRUCTION ISSUES AT THE END OF EACH WORKDAY, AND MAINTAIN ACCESS TO ALL ADJACENT PUBLIC ROADS, SIDEWALKS, ROUTES, ADJACENT STREETS AND STREET DRAIN SYSTEMS.

1. ALL BOOKS WILL BE OF
STANDARD SPECIFICATIONS
STANDARDS, AND SPECIAL
STORAGE OF ALL BOOKS

2. NOE SHALL BE STARTED WITHIN FIRST FIFTY FEET OF THE EXISTING HIGHWAY. SHOULDER AND ADJACENT PROPERTY CORNERS AT LEAST 7 INCHES DASH FROM NOE SHALL BE CAPTURED.
3. SLOPS SHALL BE NO STEEPER THAN 1 HORIZONTAL TO 3 VERTICAL.
4. FILLS SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC WORKS" AS APPLICABLE TO THE PROJECT.
5. FILL AREAS SHALL BE GRADED TO VEGETATION AND SOILS, REPAIRED, AND BE APPROVED BY THE CHIEF ENGINEER.
6. PROTECTIVE FILLINGS AND TEMPORARY DRAINAGE PITS SHALL BE USED TO PREVENT EROSION OF EXISTING EARTHWORK AND TO MAINTAIN THE PROPOSED EARTHWORK TO REMAIN.
7. DIRT SHALL BE CONTAMINATED BY THE INTERACTION OF THE ENGINEER, AND IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, THE PROPOSED EARTHWORK SHALL BE REGRADING TO THE PROPOSED EARTHWORK TO REMAIN.
8. ALL EXISTING SHALL BE REMOVED TO THE PROPOSED EARTHWORK TO REMAIN.
9. THE CHIEF ENGINEER OR SURVEYOR SHALL BE GRANTED STAKE FOR ALL GRADING.
10. THE ENGINEER SHALL APPROVE ALL GRADING INCLUDING CONSTRUCTION REQUIREMENTS AND THE STABILITY OF SLOPED GRADING, OR REPAIRING.
11. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
12. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
13. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
14. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
15. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
16. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
17. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
18. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
19. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.
20. THE CHIEF ENGINEER SHALL BE GRANTED STAKE FOR ALL GRADING.

EXISTING



HORIZONTAL: NAD 83, NAD 83 WEST ZONE PER CIPUS

DATUM
VERTICAL: NAVD83 PER CPUS AT BOA NO. 103
SITE BENCHMARK SHOWN ON SHEET C1.
ELEVATION: 463.64

VERTICAL, NAVY
4000 8000 12000

ELEVATION: 4665.64

NOTE

DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED FDE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX UNDISTURBED GROUND SHALL BE MADE AT 6" (150MM) IN A SMOOTH, HORIZONTAL-LIKE MANNER.

LEGEND


- ORDINARY HIGH WATER MARK
- ROCK TIE PROTECTION, ROCK REFUSAL TRENCH
- LOG VERN SIZE DETAIL ON SHEET C-11

[illegible]

RO Anderson

2020 CARSON RIVER BANK STABILIZATION PROJECTS
CARSON VALLEY CONSERVATION DISTRICT

FLYING J RANCH
SITE PLAN - LOCATION I

	DRAWN: JT	JOB: 1702-003
	ENGINEER: NRG	DRAWING: SEE PLOT STAMP
	SCALE: 1" = 40'	SHEET: C4
	DATE: 10.28.2020	OF: 12 SHEETS
	10/28/2020 10:53 AM 10/28/2020 10:53 AM	

[illegible]

DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED FDE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX. UNDISTURBED GROUND SHALL BE MADE AT 6:1 (HAY) IN A SMOOTH, MODERATELY STEEP SLOPE.

ORDINARY HIGH WATER MARK

LOG VIEW SEE DETAIL ON SHEET C1

ESTIMATED QUANTITIES

AREAL
EARTH WORK: 286 CY CUT, 274 CY FILL
RIP-RAP TOE PROTECTION: 4,044 S.F. 3' HIGH
LOG VAINS OR APPROVED EQUAL: 3 EACH

NOTE: NO GUARANTEE IS MADE CONCERNING THE
ACCURACY OF THE ESTIMATED QUANTITIES. THE
CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES
OF WORK ASSOCIATED WITH THE PROJECT

CONSTRUCTION NOTE

CREST LINE FAILED RIVER BANKS BY CUTTING PROPOSED CREST LINE AT RAY. USE MATERIAL GENERATED FROM THE CUT AS FILL IN CONNECTION WITH ADDITIONAL FILL MATERIAL FROM THE RIVER BANKS AS NECESSARY SEE RIVER BANK REGRADE DETAIL ON SHEET C-1.

INSTALL CH-RAIP FOR PROTECTION PER DETAIL ON SHEET C-1.

INSTALL LOG VIN (OR APPROVED ALTERNATE) APPROX. 25' HIGH TO PROTECT HIGHWAY AND DRAINAGE DITCHES. SEE DETAIL FOR HIGHWAY PROTECTION. SEE DETAIL FOR DETAIL OF HIGH RAMP. SEE SHEET C-1 FOR DETAIL.

[illegible]

NOTE

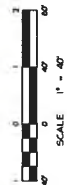
DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED TOE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX. UNDISTURBED GROUND SHALL BE MADE AT 9:1 (MAX.) IN A SMOOTH & MEDIAN-LIKE MANNER.

LEGEND

ORDINARY HIGH WATER MARK

ROCK TOE PROTECTION, ROCK REFUSAL TRENCH

LOG VIEW SEE DETAIL ON SHEET CH

[illegible]

RO Anderson

2020 CARSON RIVER BANK STABILIZATION PROJECTS
CARSON VALLEY CONSERVATION DISTRICT

FLYING J RANCH
SITE PLAN - LOCATION 3

DRAWN:	JT	JOB:	1702-0093
ENGINEER:	NRG	DRAWING:	
SCALE:	1" = 40'	SEE PLOT STAMP	
DATE:	10.28.2020	SHEET:	C6
			OF 12 SHEETS

BID SET 10.28.2020



NOTE

DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED TOE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX UNDISTURBED GROUND SHALL BE MADE AT THE (MAX.) IN A SMOOTH & HORIZONTAL-LIKE MANNER.

LEGEND

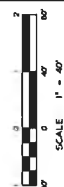
PROBABLY HIGH WATER MARK

 ROCK TOE PROTECTION, ROCK REMOVAL, TRENCH

LOG VIEW SIZE DETAIL ON BULLET CH


[illegible]

RO Anderson
 1984-1985 CHS CO-ED EDITOR



2020 CARSON RIVER BANK STABILIZATION PROJECTS
CARSON VALLEY CONSERVATION DISTRICT

CHARNEY RANCH
SITE PLAN - LOCATION I

	DRAWN:	JT	JOB:	1702-003
	ENGINEER:	NRG	DRAWING:	
	SCALE:	1" = 40'	SEE PLOT STAMP	
	DATE:	10/28/2020	SHEET:	C7 OF 12 SHEETS



Completed Phase I



NOTE

NOTES OF EXAMINATION & SURVEY SHALL NOT BE USED FOR ANY PURPOSES OTHER THAN THAT FOR WHICH THEY WERE PREPARED. THE ENGINEER'S LIABILITY SHALL BE LIMITED TO THE WORK AND MATERIALS SPECIFICALLY IDENTIFIED IN THE CONTRACT DOCUMENTS.

LEGEND

- ORDINARY HIGH WATER MARK
- ROCK TIE PROTECTION, ROCK DETAIL TRENCH
- LOC. FOR SEE DETAIL ON SHEET C10

ESTIMATED QUANTITIES

ESTIMATE: 446 CY CUT, 486 CY FILL
 1.5% SLOPE ON IMPROVED SOIL, 3% SLOPE ON UNIMPROVED SOIL, 10% SLOPE ON ROCK
 NOTE: NO GUARANTEE IS MADE CONCERNING THE ACCURACY OF THE QUANTITIES LISTED ABOVE. THE CONTRACTOR SHALL ESTIMATE THE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.

CONSTRUCT ON NOTE

1. REGRADE BANK FOR DETAIL SEE DETAIL C10
2. REGRADE BANK FOR DETAIL SEE DETAIL C10
3. REGRADE BANK FOR DETAIL SEE DETAIL C10
4. REGRADE BANK FOR DETAIL SEE DETAIL C10
5. REGRADE BANK FOR DETAIL SEE DETAIL C10

MATCH LINE - SEE SHEET C10



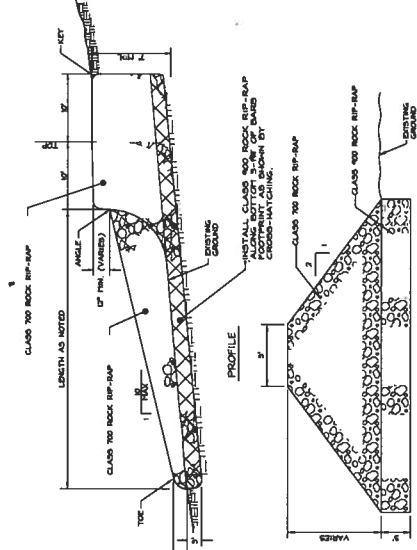
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Phase II

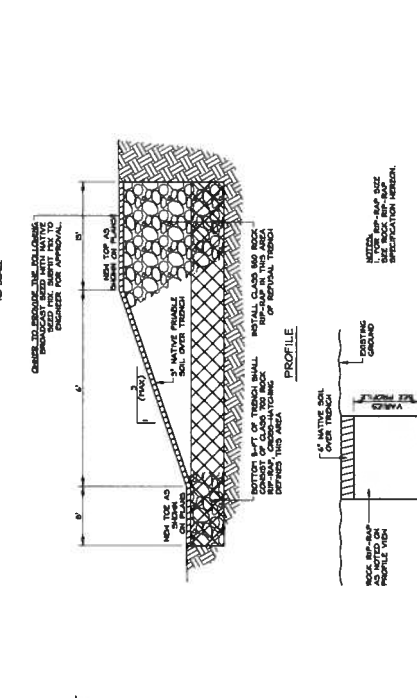
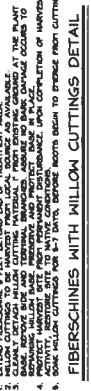


NO.	DATE	REVISION BLOCK	BY		R O Anderson 7600 Holladay Road Suite 100 San Diego, CA 92121 Phone: 619.481.1111 Fax: 619.481.1112 Email: ro@roanderson.com Website: www.roanderson.com	2020 CARSON RIVER BANK STABILIZATION PROJECTS CARSON VALLEY CONSERVATION DISTRICT	HOLBROOK RANCH SITE PLAN	JOB: 1702-003 DRAWN: JT ENGINEER: DRAMINE NGS: SEE EDOT STAMP SCALE: 1" = 40' DATE: 10.26.2020 OF: 12 SHEETS C10
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2. RIP-RAP WITH A SPECIFIC GRAVITY OF LESS THAN 2.5 WILL NOT BE ALLOWED.
3. RIP-RAP SHALL BE GUARDED WITH FRACTURED FACES.
4. RIP-RAP SHALL HAVE AN EARTH TONE WHICH BLENDS WITH SURROUNDING ENVIRONMENT.



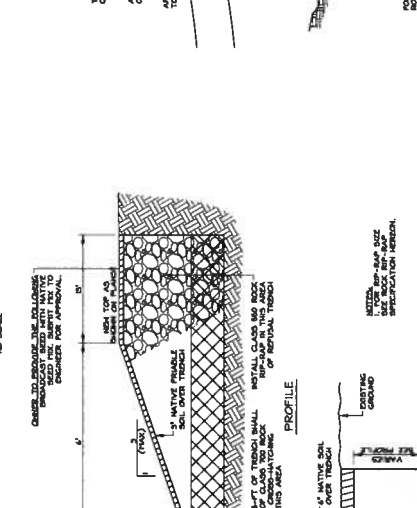
TIME



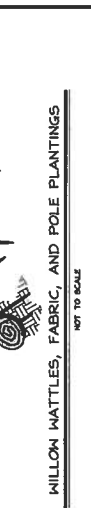
NO SCALE



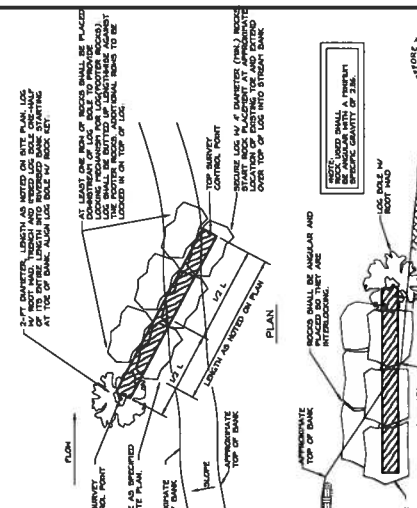
EQUAL APPROVED BY THE ENGINEER.



NO SCALE



EXISTING CIRCLED



NO SCALE

1. PLAN SECTION IS GENERIC; IT WILL REQUIRE ADJUSTMENT AS FIELD BY CONTRACTOR.
2. PLAN ASSUMES WORK IS CONDUCTED AT EXTREMELY LOW FLOOD CONDITIONS.
3. CONTRACTOR SHALL BATHY THEMSELVES THAT LOCATION WHERE TEMPORARY LOW-FLOOD CHANNEL IS CUT WILL ALLOW ENOUGH BARRIER AREA TO SATISFY ALL REQUIREMENTS OF PROJECT.
4. LOW-FLOOD CHANNEL SHALL BE FILLED & REFORMED TO EX. CONDITIONS.

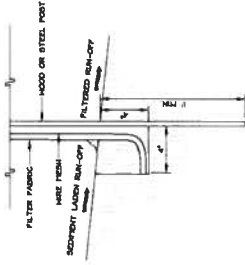
1. CONTRACTOR SHALL STEAM CLEAN ALL EQUIPMENT THAT WILL BE WORKING IN RIVER BED AT SHOP PRIOR TO COMMENCING CONSTRUCTION.

2. CONTRACTOR SHALL MAINTAIN INTEGRITY OF SOFT FORCE AND STRAIN GAGE BARBERS DURING THE COURSE OF CONSTRUCTION.
3. CONTRACTOR SHALL USE DEEP PANS OR ABSORBENT MATS DURING PILING AND SPILLAGE TO PREVENT AGAINST SPILLS.
4. SPILLED PETROLEUM PRODUCTS, CONTAMINATED SOILS OR WATER, AND ACCUMULATED SEDIMENTS SHALL BE CLEANED UP AND PROPERLY DISPOSED OF AT A LICENSED FACILITY. DISPOSAL OF SUCH MATERIALS TO THE RIVER CHANNEL OR OTHERS IS PROHIBITED.

[illegible]

1. IN CASE OF EMERGENCY CALL CARBON VALLEY CONSERVATION DISTRICT (7804 MILKWOOD, @ 774-782-3441 X 1000 OR ENGINEER @ 774-782-2522).

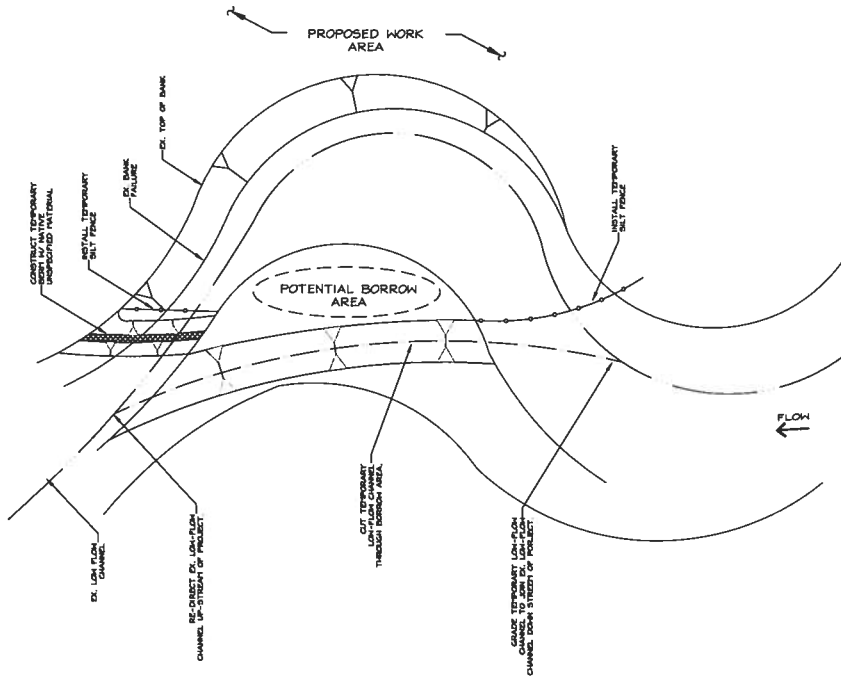
- [illegible]



SILT FENCE
NO SCALE

- [illegible]

1. SLY FENCE:
 - a. FILTER FABRIC SHALL BE 4" WIDE, TENSILE STRENGTH 100 LBS., EQUIVALENT OPENING SIZE TO
 - b. POSTS SHALL BE 8" LONG (MIN.), 4"x4" WOOD OR 1.5 LBS./YD STEEL.
 - c. WIRE FENCE SHALL BE 4" WIDE, 6" PITCH, 14 GAUGE WIRE (MINIMUM).
 - d. STAPLES (FOR WOOD POSTS) SHALL BE HEAVY DUTY 1" LONG, 14 GAUGE (MINIMUM).
 - e. WIRE (FOR STEEL POSTS)




TYPICAL DE-WATERING & EROSION CONTROL PLAN

[illegible]

2020 CARSON RIVER BANK STABILIZATION PROJECTS
CARSON VALLEY CONSERVATION DISTRICT

SE-WATERING & TEMPORARY EROSION CONTROL PLAN

	DRAWN: JT	JOB: 1702-009
	ENGINEER: NRG	DRAWING: SEE PLOT STAMP
	SCALE: AS NOTED	SHEET: C12
	DATE: 10-28-2000	OF 13 SHEETS

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

6

APPLICANT: Dayton Valley Conservation District
Name
P.O. Box 1807
Address
Dayton Lyon NV 879403
City County State Zip Code
rholley.dvcd@yahoo.com 775-246-6220, ext 1878
Email Telephone #

APPLICANT'S AGENT (if different from Applicant):

Rob Holley, District Manager
Name
same
Address

City County State Zip Code
Email Telephone #

PROJECT NAME: Existing Project Inspection/Survey and Prioritization/Completion of Repairs

PROJECT LOCATION/ADDRESS: Middle Carson River from Carson River Canyon to Fort Churchill State Park

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

This project is designed to survey present condition of completed projects, establish a prioritized list of repairs based on various criteria, and begin repairs accordingly. Additionally, this project addresses the need for an updated and current project inventory (location, construction type/size, etc) for submission to State Lands as part of an ongoing effort to inventory projects completed on State property, and to establish an effective and efficient permitting process for maintenance of those projects. This is part of DVCD's plan to address severe and ongoing bank erosion, loss of mature cottonwood trees (into the river), and loss of private agricultural land.

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The project is intended to accomplish the following objectives:

1. Thoroughly inspect each project site (30+) and establish a prioritized list of project repairs (based on multiple factors including affected infrastructure, utilities present, riparian function, mercury sequestration, cottonwood gallery protection, etc.).
2. Establish project site list (including all completed projects regardless of repair needs) for State Land's use in establishing inventory and efficient multi-year permitting.
3. Begin implementing repair efforts based on the aforementioned priorities.

In addition to current and requested funds from CWSD, funds have been granted via NDEP 319(h), Lyon County, and the Nevada Conservation District Program. All funding will go to this project and related activities. Several of these sites are within the area of historic mill sites and add potentially contaminated soil to the waterway as they erode. Additionally, mature cottonwood trees at these sites continue to fall into the river, posing a significant danger to the Dayton Bridge and downstream diversions. Funding requested of CWSD will address inventory of repairs needed, work with State Lands and Dayton area stakeholders, and work related to repairs. Additionally, CWSD's annual weed funding helps support this project by controlling noxious weeds on project sites and adjacent lands.

Through the inventory and maintenance/repair effort, this project provides for continued and much needed repair efforts that will address bridge and infrastructure safety, diversion protection, flood plain function, residential and agricultural property protection, water quality/riparian function, and protection of the cottonwood gallery.

TOTAL ESTIMATED PROJECT COST: \$188,000.00

AMOUNT REQUESTED FROM CWSD: \$100,000.00

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.

NDEP 319(h) - \$50,000.00 – approved (pending workplan and contract)
Lyon County - \$30,000 –current (approved) and next fiscal year (pending)
Nevada CD Program - \$8,000.00 – current (approved) and next fiscal year (pending)

ESTIMATED DATE PROJECT TO BEGIN: immediately (project inventory survey)

ESTIMATED TIME TO COMPLETE PROJECT: Spring 2022

(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.

NDEP Working in Waterways – current
Presently, when working from the river bank, repairs fall within the parameters of NRS 322 and do not currently require further permitting, as the work does not involve working in, or altering the river bed.

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

SIGNED: 

NAME: Rob Holley

TITLE: District Manager

DATE: 02/04/2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

7

APPLICANT: Lahontan Conservation District
Name
111 Sheckler Road
Address
Fallon NV 89406
City County State Zip Code
christy.sullivan@nv.nacdnet.net (775) 423-5124 exe
101
Email Telephone #

APPLICANT'S AGENT (if different from Applicant):

Same
Name
Address
City County State Zip Code
Email Telephone #

PROJECT NAME: Lower Carson River

PROJECT LOCATION/ADDRESS: Carson River Channel Below Diversion Dam to
the Carson River Sink

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

- Continue with a long-term monitoring program on the lower Carson River.
- Beaver and beaver dam removal to improve water flow in the channel.
- Clear brush and sediment back to original riverbank starting at Diversion Dam and continuing downstream.
- Remove sediment build-up above and below Sheckler Bridge.
- Remove sediment build-up above and below McLean Bridge.
- Remove sediment build-up above and below Highway 50 Bridge.
- Remove sediment build-up above and below Highway 95 Bridge.
- Remove sediment build-up above and below Bafford Bridge.

Create a river channel that is clear of obstructions/abstraction and provides a free flow at natural choke points. For example, the Reno Highway Bridge 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. Additional sheets may be attached.

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.

TOTAL ESTIMATED PROJECT COST: \$50,000.00
AMOUNT REQUESTED FROM CWSD: \$25,000.00

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.

Churchill County Grant Funding	\$ 6,975.00
In-kind Match:	
Lahontan Conservation District	\$ 8,000.00
Administration and Equipment	
Landowners Equipment and	<u>\$ 10,000.00</u>
Labor	
Total	\$ 24,975.00

Truckee-Carson Irrigation District – Maintenance including personnel and equipment

ESTIMATED DATE PROJECT TO BEGIN: November 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: March 30, 2022
(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, 2020 to June 30, 2021 (Pending July 1, 2021 to June 30, 2022)

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

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.

Improvement Criteria Achieved:

- 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 for the Carson River.

SIGNED: 

NAME: Bill Washburn

TITLE: Chairman

DATE: February 4, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

Highway 50 Bridge



95 N Bridge



Bafford Bridge



McLean Bridge



CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING



APPLICANT: Sierra Nevada Journeys

Name

190 East Liberty Street

Address

Reno

Washoe

NV

89501

City

County

State

Zip Code

joan@sierranevadajourneys.org

775-355-1688

Email

Telephone #

APPLICANT'S AGENT (if different from Applicant):

Name

Address

City

County

State

Zip Code

Email

Telephone #

PROJECT NAME: Family Watershed Nights for Carson River Watershed Communities

PROJECT LOCATION/ADDRESS: Four schools in Carson City and/or Douglas Counties

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

Funding from the Carson Water Subconservancy District will serve over 500 children and their parents in communities within the Carson River Watershed with four community-building and educational events called Family Watershed Nights (FWN). FWNs invite K-8 students, their parents and siblings to attend a fun, family-friendly evening, which provides watershed education at the family level and reinforces STEM concepts in the classroom. Through hands-on activities, participants will gain a sense of ownership and stewardship for the health of their community watershed.

Please see attached for further information.

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

1) Provide four watershed family events for four schools within the Carson River Watershed, including Carson City Minden or Gardnerville (i.e., Carson City and/or Douglas Counties), 2) Collaborate with partners and local experts, such as CWSD staff and NDEP professionals to lead watershed activities at these events, 3) Engage 500 individuals (students, parents and siblings) in hands-on watershed-themed activities, 4) 100% of participants will gain hands-on experience with: a. Various watershed models; b. Defining current issues impacting the Carson River Watershed, c. Identifying solutions and ideas for helping to protect local watersheds, 5) This year SNJ would like to have a pre-planning meeting with CWSD in case the FWNs transitions to a virtual learning platform due to possible COVID-19 restrictions.

Please see attached for further information.

TOTAL ESTIMATED PROJECT COST: \$4,250.40

AMOUNT REQUESTED FROM CWSD: \$3,278.88

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.

Microsoft Corporation: \$971

ESTIMATED DATE PROJECT TO BEGIN: August 2021

ESTIMATED TIME TO COMPLETE PROJECT: June 2022

(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.

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

SIGNED: 

NAME: Joan Grover

TITLE: Director of Development and Grants

DATE: January 28, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

Providing Family Watershed Nights for Carson River Watershed Communities

A Proposal to the Carson Water Subconservancy District

Project Description (continued)

Through funding from the Carson Water Subconservancy District (CWSD), Sierra Nevada Journeys (SNJ) will deliver four Family Watershed Nights (FWN) to schools located in Carson City and/or Douglas counties. FWNs target K-8 students and their families, offering an exciting 1.5-hour event that fosters engagement, curiosity, innovation, and teamwork, all centered on the STEM fields and watershed education. Students, their parents and siblings attend this family event at no charge and enjoy various activity stations that include mini-challenges and family-based team projects.



Most recently, CWSD funded the delivery of four FWNs featuring watershed-focused mini-challenges where participants also receive the Carson River Watershed Map. Area teachers, students and families have expressed gratitude for the CWSD's support of this program and SNJ hopes this partnership will continue. With funding from CWSD, SNJ will work to serve an increased number of schools as well as assess, evaluate, and refine current watershed-focused stations.

SNJ will measure the success of these Family Watershed Nights by the number of attendees, engagement of the participants, and feedback from the educators at the school sites. Students are evaluated by the worksheets they complete with their family during the event often for extra credit by their teacher.

SNJ Family Nights are an established program offering. We have successfully conducted several hundred Family Nights in northern Nevada over the last 11 years with participation ranging between 50-250 attendees at each event. Our program consistently receives high marks from parents, students, teachers and principals for being fun, professional and informative.

In the event of possible COVID-19 restrictions, SNJ stands ready to implement virtual Family Watershed Nights. We have successfully transitioned our family nights during the pandemic, consisting of 30-minute events hosted on the virtual platform and run by SNJ educators. We provide the participants with a list of activities to choose from for their event ahead of time. They can either choose two activities or one longer main design challenge. These events have been very engaging for families, and we have received wonderful feedback from schools and partners saying that the events were easy for participation.

Project Benefits (continued)

In our own pre-assessments, we have found that only 17% of students could 1) list one way to protect their own watershed, and 2) describe why it would be helpful. This illustrates that children are not learning about local issues facing their watersheds. A recent national study from The Nature Conservancy might reveal why. The report notes that students who have had a personal experience in nature are increasingly uncommon: "The vast majority of today's children use a computer, watch television or play video games on a daily basis, but only about 10 percent say they are spending time outdoors every day."

However, students who have experienced nature are:

- Significantly more likely to express concern about water pollution, air pollution, global warming, and the condition of the environment;
- More than twice as likely to “strongly agree” that protecting the environment is “cool”;
- More than twice as likely to consider themselves a “strong environmentalist,”; and
- Substantially more likely to express interest in studying the environment in college, working in a job related to nature, or joining an environmental club at their school.¹



Through SNJ’s interactive programs we focus on teaching through nature and encourage local youth and their families to have meaningful experiences outdoors, thereby increasing their likelihood to value nature, engage with it and feel empowered to care for it. Moreover, FWNs successfully teach children and their families about specific local issues facing the Carson River Watershed and actions they can take to prevent further degradation of this river ecosystem.

We know that parent engagement is critical to student success, particularly in low-income homes. Children from diverse cultural backgrounds tend to do better when parents and professionals collaborate to bridge the gap between the culture at home and the learning institution. Schools and teachers need support in reaching out to the families of their students. This is where Sierra Nevada Journeys can help bridge the gap. Family Watershed Nights address a crucial concern and provide knowledge and awareness of water issues at the family level.

Our initiative helps engage students and their families by encouraging them to adopt environmental stewardship practices aimed at reducing point-source water pollution. Through fun and hands-on activities, students and their families learn more about their local watershed and become better stewards of the Carson River. Beyond the environmental impact, SNJ’s Family Watershed Nights also:

- ✚ Involve parents in their child’s education, regardless of their own education level, ethnicity, and socio-economic status;
- ✚ Use hands-on science as the vehicle for exploration, which provides a language-neutral context;
- ✚ Provide a meaningful family activity that is linked to learning, building on parent’s instinctual desire to help their child’s academic success;
- ✚ Help forge a sense of trust between the school and the families, encouraging families to become involved in their child’s school; and,

¹ The Nature Conservancy, Connecting America’s Youth to Nature, 2012 Retrieved from: <http://www.nature.org/newsfeatures/kids-in-nature/youth-and-nature-poll-results.pdf>

- ✚ Provide a means for the local community to engage in helping support low-income children and their success in learning.

In addition to our passionate and credentialed education team, we also have a volunteer model in place in which we can seamlessly integrate volunteers into our Family Watershed Night. A rich experience for the volunteers, assisting at an SNJ Family Night provides another interaction point between the community and the school.

**CARSON WATER SUBCONSERVANCY DISTRICT
FY 2021-22 REQUEST FOR FUNDING APPLICATION**

9

APPLICANT: River Wranglers
Name
POB 1612
Address
Dayton Lyon NV 89403
City County State Zip Code
rw@riverwranglers.org 775.386.2743
Email Telephone #

APPLICANT'S AGENT (if different from Applicant):

Darcy Phillips
Name

Address

City County State Zip Code

Email Telephone #

PROJECT NAME: Conserve the Carson River Workdays

PROJECT LOCATION/ADDRESS: Multiple locations in the Carson River Watershed

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

River Wranglers continues the Conserve the Carson River Workdays (CCRWD) throughout the watershed. As everything changed in 2020, so did we. We split our project into two separate components - the work and the education – for the most part. We plan to continue that in 2021-2022 as circumstances require. We have moved to a virtual platform; however, we plan to incorporate this virtual content into our regular programming once we can return to in-person field trips. This programming is interactive and engaging. Additionally, we give each participating student a backpack filled with corresponding activities and supplies. These backpacks have become the new t-shirts. It is a way to give the students some hands-on activities and help them to feel they didn't miss out as much given they couldn't have a field trip.

We plan to continue small, more family-oriented river workdays on the weekends, and we introduce informal education into these workdays with discussions about why we are doing what we are doing, the importance of the health of the watershed, and other relevant topics. As part of this workday piece, we have completed a list of all the areas we've wrapped trees in the last 25 years, and we plan to survey them and rewrap them as necessary. We plan to continue the good work of prior years with water quality testing, marking storm drains, cleaning up trash, and working on stream bank stabilization. We are requesting \$6,000 per county for these projects and supplies for students. We use local conservation district employees to supervise and prep for these river projects. In addition, we work with city, state, federal, and county partners. The remaining \$2,000 would cover administration and travel costs related to the grant.

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

Our goal is to reach every school in the watershed communities that wants our programming – this is easier with virtual content, but also more difficult because teachers are overwhelmed. We are networking with schools and districts as possible to increase our reach.

Ultimately, our large goal is to bring awareness to non-point source pollution issues in our watershed. By working off the issues the CWSD watershed survey brought forward, we are able to increase knowledge of people's relationship to the watershed and the river. By reaching the children, our hope is to make them aware for life, and if they bring their parents along in their awareness, all the better.

Our work links all the communities in the watershed while providing virtual conservation activities for the students supported by some individual hands-on content. By educating them about the water cycle, the geography of the watershed, the importance of conservation work and their role in non-point source pollution, the students connect themselves to the watershed itself, allowing for lifelong stewardship.

As always, we thank CWSD for your continued support at all levels of our work – through lending us staff, providing us office space, and supporting us financially, you make our work possible.

TOTAL ESTIMATED PROJECT COST: \$100,000

AMOUNT REQUESTED FROM CWSD: \$26,000

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.

Funds from the CWSD grant are used as a cash match for the 319h grant from the Nevada Division of Environmental Protection. The NDEP grant covers the cost of salary and mileage associated with this grant. We have increased our fundraising efforts as our costs continue to increase. We plan to apply for other local grants to help with the increased cost of supplies as the filled backpacks cost significantly more than t-shirts. We hope this cost is a temporary one, however.

ESTIMATED DATE PROJECT TO BEGIN: July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: June 30, 2022

(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.

Signature: Darcy Phillips

Name (please print): Darcy Phillips

Title: Executive Director

Date: 1/28/2021

Please submit your application via US Mail to: CWSD, 777 E. William Street, Suite #110A, Carson City, NV 89701 or via email to edjames@cwsd.org. All submissions must be received no later than February 5, 2021 to be considered for FY 2021-22 funding.

CWSD reserves the right to deny any and/or all applications for funding.

**CARSON WATER SUBCONSERVANCY DISTRICT
FY 2021-22 REQUEST FOR FUNDING APPLICATION**

10

APPLICANT: Alpine Watershed Group Contact: Kimra McAfee
Name

P.O. Box 296
Address

Markleeville Alpine CA 96120
City County 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

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

Alpine Watershed Group (AWG) seeks funding for the fiscal year 2021-2022 from the Carson Water Subconservancy District for the coordination of its Upper Carson River watershed programs. AWG's mission is to preserve and enhance the natural system functions of Alpine County's watersheds for future generations. For 20 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 will staff: 1) involve local citizens in watershed stewardship; 2) plan and implement 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 nearby Nevada. The recreational offerings and magnificent nature in Alpine County depend on the clean water 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 forums, seminars, and newsletters allows 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: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

Our organization's goals are to:

- Monitor and restore Alpine County watersheds
- Inspire community involvement and build public awareness around watershed issues
- Build organizational capacity for a sustainable future

Our 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
- Improve the administration and management of river and stream systems
- Assist water users and the general public in understanding current water issues

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 to become eligible for funding from the US Environmental Protection Agency's 319 Grant Program. AWG continues to work closely with the Regional Board as part of the West Fork Carson River Multiple Pollutants Vision Project. In the past year, AWG partnered with the Regional Board to host a series of forums to inform their Vision Project document. We helped recruit presenters and lead discussions to get input on roads, restoration, recreation (planned for March 2021), and ranching (planned for May 2021) in relation to improving water quality. In the coming year, we will continue to work with the Regional Board to assist in finalizing their Vision Project Plan, including continuing to liaison with CWSD staff so the Vision Project Plan complements CWSD's *Carson River Watershed Adaptive Stewardship Plan*, and the upper watershed in California at last becomes eligible for 319 funding, as the Nevada parts of the watershed have been.

Concurrent with the Regional Board's efforts, for the last two years AWG has been undertaking a planning and partnership development effort funded by a US Bureau of Reclamation (USBR) WaterSMART Cooperative Watershed Management Program grant. With the help of AWG's new Watershed Program Assistant Ky Osguthorpe, we will complete this effort by the end of June

2021. As part of this process, AWG solicited project ideas through a survey and our January 2021 meeting discussion, and this spring Ky will be working with a Projects Committee to get expert guidance in refining and prioritizing the project ideas gathered. This USBR-funded report will serve as a blueprint to guide AWG's projects and programs in coming years, and it will be a valuable tool for fundraising for these projects and programs. One of our goals is to elevate the East Fork Carson River to the same level of watershed planning as the West Fork Carson River.

Following is a summary of AWG's monitoring, restoration, and education program plans and projects in the coming year.

Monitoring

- Continuing our long-standing river monitor program, collecting data at eight sites in the Carson River watershed four times/year
- Conducting Year 3 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
- Using the remaining monitoring funds from the South Lake Tahoe Public Utility District to conduct targeted Year 4 monitoring of the treated effluent released in Alpine County for Contaminants of Emerging Concern including Pharmaceuticals and Personal Care Products, possibly including testing for the presence of microplastics; working with Alpine County to explore ways to continue funding this monitoring program
- Entering data from 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 the river monitor and HAB monitoring programs
- Developing our GIS database for the county's watersheds

Restoration

Hope Valley Restoration & Aquatic Habitat Enhancement Project – 11/2016 to 12/2024

This project will stabilize 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 will increase bank stability.

Update: Construction was completed in fall 2020, and the first annual monitoring report is 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.

Grover Hot Springs Meadow Restoration & Community Engagement – Ongoing

The Grover Hot Springs Meadow Restoration Project was completed in 2020. This project reduced user impacts throughout the meadow and reestablished the continuity of flow through the meadow by creating an elevated ADA accessible trail. Interpretive signage along the new trail enhances the visitor experience while educating visitors about the fragile meadow ecosystem. The project included work to stabilize banks along Hot Springs Creek and to remove invasive,

nonnative species. AWG plans to continue supporting State Parks staff with weed management, brush box maintenance, and community engagement, both in volunteer stewardship opportunities and in environmental education activities. Due to COVID-19, State Parks was unable to coordinate with the Washoe Cultural Committee to finalize content for the planned cultural interpretive panel. AWG plans to continue working toward this goal, including providing sign layout when final content is ready.

Faith Valley Project – American Rivers lead, 6/2017 to 5/2023

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: *American Rivers has procured funding for project implementation, and the first phase of implementation is planned for summer 2021.*

West Fork Carson Project – National Forest Foundation lead, 9/2021 to 10/2024 (estimated)

The National Forest Foundation is working on a Master Stewardship Agreement with the Humboldt-Toiyabe National Forest and is pursuing funding to execute a portion of the West Fork Carson Project for conifer removal in the Hope Valley area. AWG has been asked to be a project partner to provide community outreach and aspen monitoring for the proposed project. The grant application to California Department of Fish and Wildlife is in process; because the budget has not been finalized, this projected funding is not included in the below funding list.

Education and Community Outreach

- 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
- Depending on the pandemic and public safety, engaging community members and visitors through our annual Earth Day and Creek Day workdays, and expanding volunteer opportunities through other events such as Adopt-A-Highway cleanups, Grover State Park workdays in collaboration with California State Parks Foundation's Park Champions program, and tool maintenance events; 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 region
- Continuing to expand our programs with Diamond Valley School and working to reach Alpine County youth when they move on to Douglas High School
- Building a stronger partnership with the Hung-A-Lel-Ti (Woodfords) community of the federally-recognized Washoe Tribe of NV and CA
- Continuing to partner with Alpine Trails Association on graffiti tracking and removal coordination and trash pick-ups; AWG core volunteers will continue to remove trash along AWG's Adopt-A-Highway stretch from the Carson River Resort to the Highway 89 cutoff to Monitor Pass even if expanded volunteer opportunities to assist cannot safely be done in 2021
- Depending on the pandemic and the restart of public events, expanding watershed awareness by ongoing tabling presence at events throughout the region; continuing to be creative in how to expand watershed awareness, such as through our now-virtual bimonthly watershed group meetings and social media, and by upgrading our outdated website

TOTAL ESTIMATED PROJECT COST: \$93,459

AMOUNT REQUESTED FROM CWSD: \$25,000

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.

The committed and projected matching funds are as follows:

Alpine County from South Tahoe Public Utility District	
– committed	\$ 7,000
Alpine County Tobacco Control Program – committed	\$ 4,000
American Rivers – committed	\$ 5,000
California Department of Fish & Wildlife Kirkwood Settlement	
– committed	\$ 6,500
Clarence E. Heller Foundation – pending	\$20,080
Partners Advancing Climate Equity (PACE) – pending	\$ 8,000
Trout Unlimited - Sagebrush Chapter – committed	\$10,879
Individual contributions – projected	\$ 7,000

ESTIMATED DATE PROJECT TO BEGIN: July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: June 30, 2022

(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.

We are working to schedule this item for approval by the Alpine County Board of Supervisors on March 2, 2021.

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

Amidst the pandemic, in 2020 AWG was still able to safely utilize volunteers for three of the four water quality sampling events, as well as for Adopt-A-Highway cleanups. Volunteers contributed a total of 85 hours on these efforts as well as assisting with projects including harmful algal bloom sample collection, benthic macroinvertebrate sample collection, Hope Valley Project time-lapse camera installation, replacement signage installation, and temporary fencing and signage removal. If we cannot resume Earth Day and Creek Day in 2021-2022, we hope to take what we have learned in 2020 to help us coordinate interested local volunteers in tackling needed projects like invasive weed removal and trash removal. In 2020, we worked only with long-time river monitor volunteers, but we hope to be able to safely utilize some of our new recruits in 2021.

Alpine County is truly unique with its low population, abundant wildlife habitat, and high quality recreational resources that attract visitors from far beyond the county boundary. We greatly appreciate the long-time support of CWSD to help 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 for considering this grant application.

Signature: 

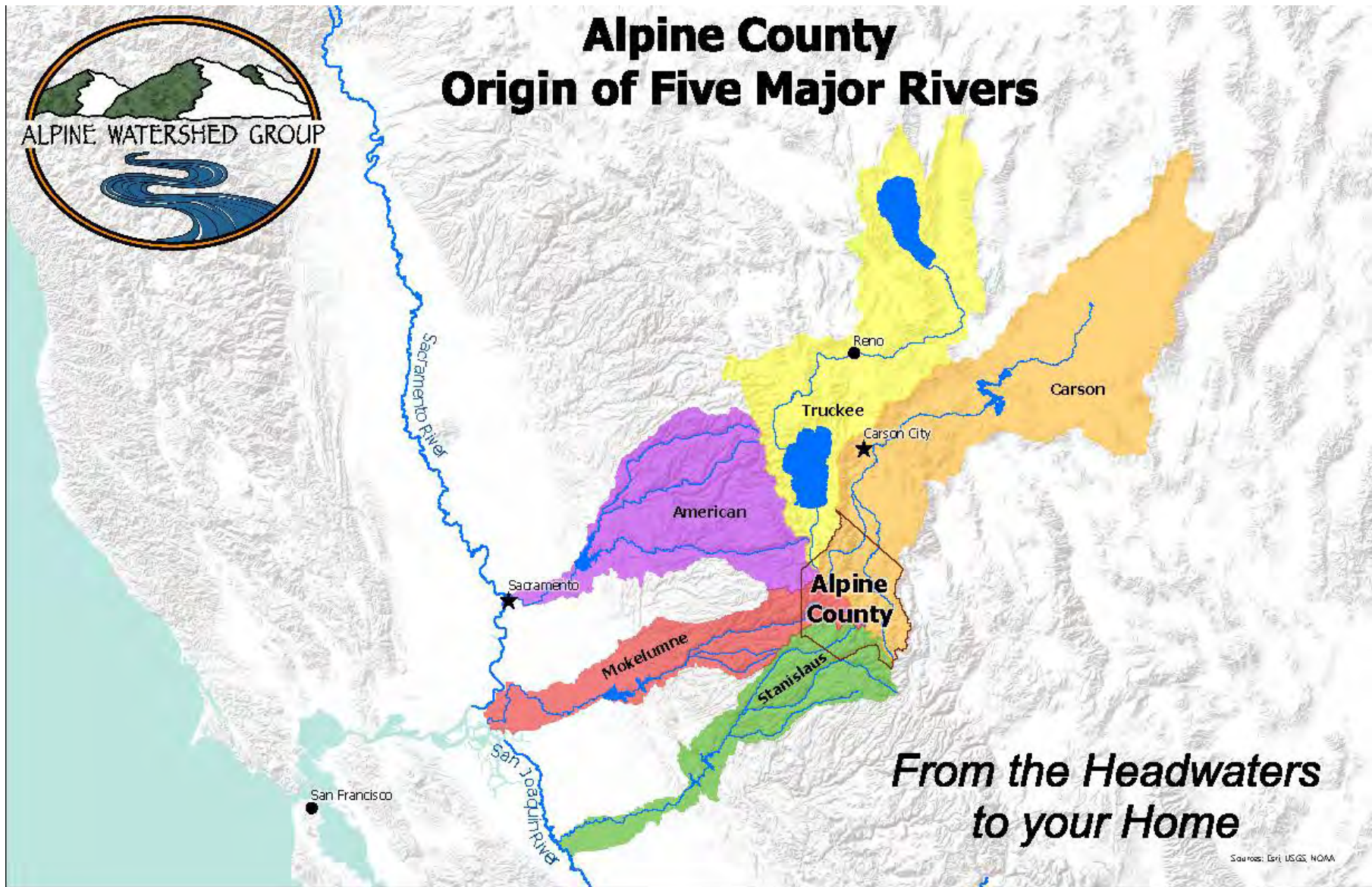
Name (please print): Kimra D. McAfee

Title: Executive Director

Date: February 5, 2021



Alpine County Origin of Five Major Rivers



**CARSON WATER SUBCONSERVANCY DISTRICT
FY 2021-22 REQUEST FOR FUNDING APPLICATION**

11

APPLICANT: Alpine Watershed Group Contact: Kimra McAfee
Name

P.O. Box 296
Address

Markleeville Alpine CA 96120
City County 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: Markleeville Creek Floodplain Restoration Project

PROJECT LOCATION/ADDRESS: Heritage Park and Nature Area, Markleeville, CA – park is located east of Alpine County Administration at 99 Water St.

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

Alpine Watershed Group (AWG) seeks funding for the fiscal year 2021-2022 from the Carson Water Subconservancy District to support finalizing planning for the Markleeville Creek Floodplain Restoration Project. Markleeville Creek is a major tributary to the East Fork of the Carson River supplying water to agricultural users, ranches, and thousands of residents in downstream communities. The Markleeville Creek Floodplain Restoration Project is intended to re-establish the natural meandering form and function of Markleeville Creek at the site of the former US Forest Service (USFS) Markleeville Guard Station. The project will re-create the natural floodplain and riparian streamside habitat by removing the unnecessary floodwalls and artificial fill material, improving in-stream habitat with bioengineered structures that will create pools for fish habitat, and revegetating disturbed areas with native species.

There are two other projects in the vicinity of the Markleeville Creek Floodplain Restoration Project that will precede implementation of the floodplain restoration project. While these projects have complicated the restoration project and slowed down its progress, they have also provided

invaluable opportunities for the best possible restoration project to improve water quality and reduce flooding. As a Carson River headwaters area, this project also serves to protect the water quality for downstream users.

- In 2021-2022, Caltrans is replacing the bridge over Markleeville Creek directly upstream of the project. When the sewer relocation project and floodplain restoration project designs were advanced to 95% construction plans in 2014, the Caltrans project was only to consist of increasing the bridge's width. In April 2019, Caltrans announced updated plans to completely replace the antiquated bridge. This expanded project creates two new opportunities: (1) by removing the old bridge footings, the bridge pinch-point will be reduced; increased flows under the bridge will reduce the sheer forces downstream, and the increased flow can spread and infiltrate across the restored floodplain; however, the changed scope of work requires reworking of the floodplain restoration project's hydraulic modeling and possible changes to the final design plans; and (2) Caltrans and Alpine County are working on two agreements, one for Caltrans to fund removal of the old bridge abutments, and a second for Caltrans to provide significant funding for the restoration project as environmental mitigation for the trees being removed during the bridge replacement project.
- Markleeville Public Utility District (MPUD) is upgrading aging infrastructure in 2022 or 2023 to reduce the threat of sewage overflows into the creek. Currently, 25-year flood events or greater threaten the integrity of MPUD's sewer system that runs through the property. Presently four unsealed sewer manholes and a lift station lie within the 25-year floodplain. A flood event of even moderate significance could cause a sewage spill, jeopardizing water quality. The unsealed sewer manholes and pump station within the project area are not accessible for emergency measures during flood conditions.

AWG has been working closely with Alpine County and MPUD for over a decade to address the imminent threat of a sewage overflow and to restore the river channel and floodplain. A longer-term shared goal is for Heritage Park and Nature Area to become the gem of downtown Markleeville, with public access to the beautiful creek and interpretive signage to educate visitors about the watershed. The first issue overcome was that of incompatible uses—the USFS Markleeville Guard Station site located next to the creek repeatedly flooded, despite the “protection” provided by the floodwall. The channelization has resulted in accelerated stream flow, property flooding, increased erosion, streambed incision, and bank failures. Over the years, AWG was a critical partner in procuring grants for the county to acquire the property from the USFS and achieve preliminary and then 95% construction plans, including completion of California Environmental Quality Act (CEQA) requirements and draft project permits. AWG also played a key role in community outreach and coordination of a Technical Advisory Committee to guide the design process.

Efforts to fund implementation of the sewer relocation project and the floodplain restoration project are now, at long last, coming together. Funding from CWSD will provide a critical match for the approved Tahoe-Sierra Integrated Regional Water Management (IRWM) implementation grant, and it will support planning progress and help to leverage the final chunk of funding needed via the Caltrans mitigation funds.

Through this project, AWG staff will: 1) coordinate with Alpine County, Caltrans, and MPUD to keep project planning and funding agreements moving forward; 2) continue to coordinate and collect pre-project water quality monitoring data; 3) strengthen community partnerships and provide community outreach for the project, including working to refine public access feature

plans for implementation after completion of the floodplain restoration project; and 4) continue work on developing and implementing a site weed management plan, including ongoing involvement of volunteers to remove invasive, nonnative plants prior to project construction. Attached please find an aerial location map of the project site; a photograph of the existing floodwall, alongside an artist's rendering of the completed project; a panoramic photo showing the park in relation to the town of Markleeville; and the Floodplain Restoration and Public Access Facilities figure from the 2014 plan set. Drone footage of the project site can be viewed here: <https://www.youtube.com/watch?v=Vb5uOzieBA0&feature=youtu.be>

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The project goals are to:

- Restore the natural stream channel and floodplain functions to reduce damaging effects of floods, enhance fish and wildlife habitat, and treat stormwater runoff
- Provide public access for recreation such as walking paths, picnicking, and parking
- Upgrade aging sewer infrastructure located in the floodplain to reduce the potential for system overflows and the threat of water quality impairments (through MPUD's project)

The objectives and resulting benefits of the floodplain restoration project are to:

- Remove the floodwall to reconnect the creek with its floodplain, trapping sediments and nutrients during overbank events to improve water quality
- Improve instream fish habitat by installing root wads on the stream banks to create pools for fish
- Revegetate the project area with native plants, providing enhanced riparian and floodplain habitat for insects and wildlife
- Remove invasive, nonnative plants, engaging volunteer help both pre-project and for long-term maintenance
- Treat roadway runoff with a bioswale catchment designed to capture stormwater before it enters the creek, filtering excess sediment, nutrients, and pollutants
- Create creek access points and recreation features resulting in an enhanced public parkland in downtown Markleeville — This scenic, recreational, and educational resource will serve both residents and tourists, including the many visitors from nearby Nevada who enjoy the outdoor recreation opportunities Alpine County provides. The features will promote watershed awareness and inspire and provide opportunities for stewardship.
- Increase resiliency to climate change — Climate models described in Section 2.7 of the Tahoe-Sierra IRWM Plan project a shift towards more precipitation in the form of rain instead of snow. Increasing temperatures could result in more accelerated melt due to more occurrences of rain-on-snow events with potential increases in erosion and sedimentation. By re-connecting Markleeville Creek with its floodplain, this project will create a more resilient landscape for absorbing shifts in peak flows and reducing downstream flooding impacts.

Protecting and enhancing the headwaters is a critical start to maintaining healthy water quality conditions throughout the watershed's region. This project is listed as a proposed floodplain restoration/river rehabilitation project in Table 8.3 of the *Carson River Watershed Adaptive Stewardship Plan* and meets 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

TOTAL ESTIMATED PROJECT COST: \$1,415,433

AMOUNT REQUESTED FROM CWSD: \$27,911

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.

The committed and projected matching funds are as follows:

Caltrans for Abutment Removal (Minor B Project)	\$100,000
Caltrans Mitigation Funds (Right of Way Dollars)	\$900,000
Tahoe Sierra Integrated Regional Water Management (IRWM) Implementation Grant	\$387,522

ESTIMATED DATE PROJECT TO BEGIN: Project is ongoing; funding request beginning July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: Implementation to be completed in 2023; monitoring required from Caltrans mitigation funding through 2028

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

This CWSD Funding Request is for July 1, 2021-June 30, 2022. It is anticipated that the agreements for the remainder of the project funding will be in place by June 30, 2022.

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.

We are working to schedule this item for approval by the Alpine County Board of Supervisors in March 2021.

CEQA Notice of Determination – Completed June 23, 2015; MPUD and AWG will each be completing an addendum to the CEQA documents as part of their respective projects; MPUD anticipates approval in late 2021; AWG anticipates approval in spring 2022.

The following approvals have not yet been requested. We anticipate these approvals in summer 2022.

- Clean Water Act Section 401 for California State Water Resources Control Board
- Clean Water Act Section 404 for US Army Corps of Engineers
- Lake or Streambed Alteration Agreement for California Department of Fish & Wildlife
- Right of Way Encroachment Permit for Caltrans
- National Historic Preservation Act Section 106 for California Office of Historic Preservation
- Construction Permit for Great Basin Unified Air Pollution Control District

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

Alpine County is truly unique with its low permanent population and high quality recreational resources that attract visitors from far beyond the county boundary. We greatly appreciate the long-time support of CWSD to help our small, community-based nonprofit serve as Alpine County's environmental organization to steward the Carson River headwaters. For 20 years we have been engaging residents and visitors in hands-on restoration projects and water quality monitoring. Thank you very much for considering this additional funding request to help us accomplish this long-planned and much-needed project. We look forward to welcoming visitors from the rest of the watershed to a protected and enhanced Heritage Park and Nature Area, featuring creek accessibility for all.

Signature: 

Name (please print): Kimra D. McAfee

Title: Executive Director

Date: February 5, 2021

Markleeville Creek Floodplain Restoration Project Location Map (Aerial)



Markleeville Creek Floodplain Restoration Project Photograph and Artist's Rendering



Existing creek prior to floodwall removal

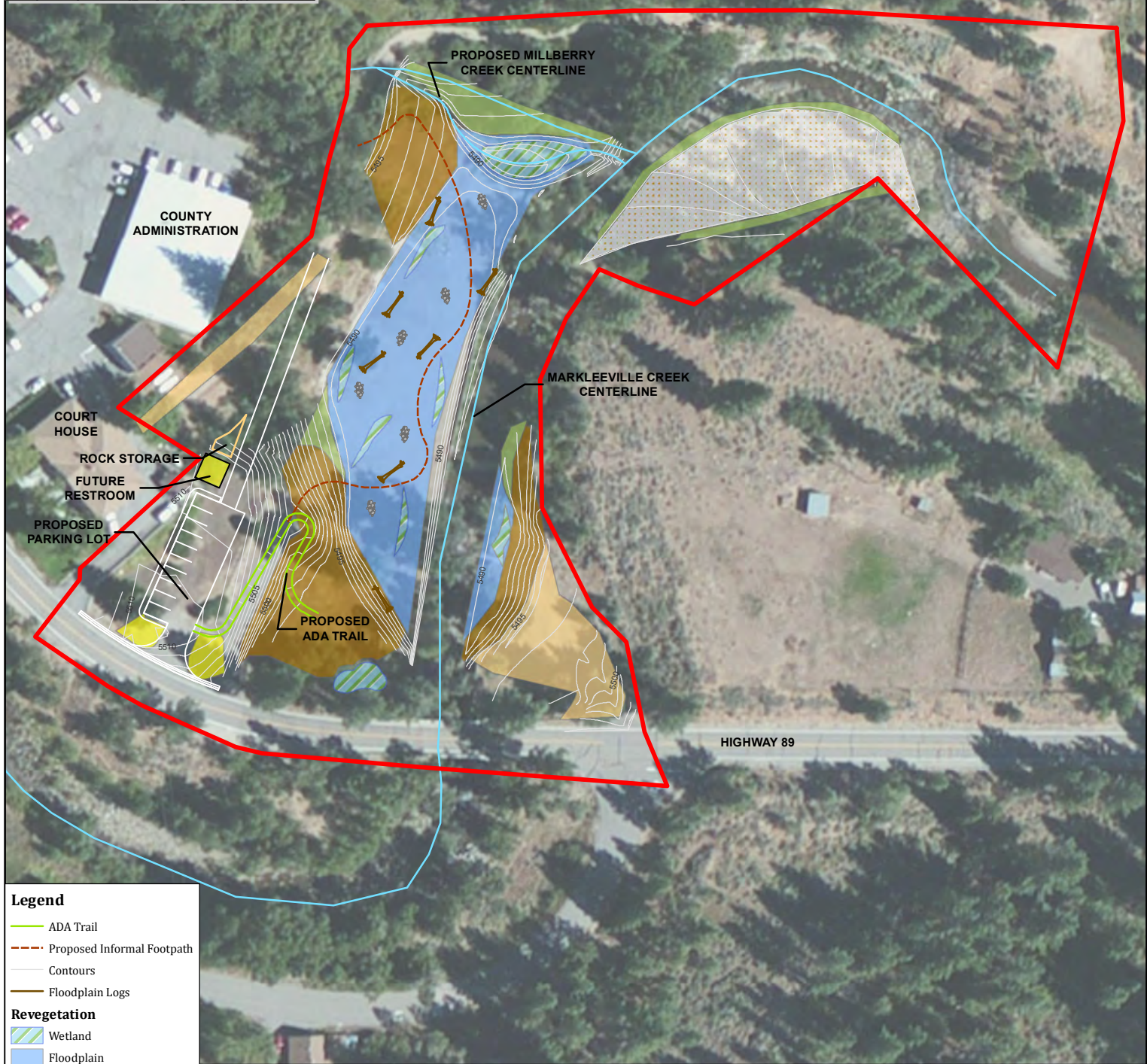


Artist's rendering of creek after floodplain restoration project completion; note that rendering does not show public access components

Heritage Park and Nature Area in Relation to Markleeville



This photograph shows the location of Heritage Park and Nature Area in relation to the town of Markleeville; visible along Highway 89 on the left side of the photo is Markleeville General Store; visible at the right side of the photo is the bridge over Markleeville Creek that Caltrans will be replacing in 2021-2022



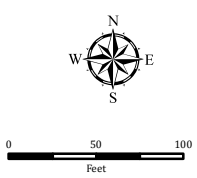
Legend

- ADA Trail
- Proposed Informal Footpath
- Contours
- Floodplain Logs

Revegetation

- Wetland
- Floodplain
- Woody Riparian
- Gravel/Cobble Bar
- Upland
- Upland Transition
- Xeriscaping
- Boulder Cluster
- Project Area

Floodplain Restoration
and Public Access Facilities
Markleeville Creek Restoration Project
Markleeville, CA



Cardno ENTRIX

Delimited by: Bonnie Peterson, Cardno ENTRIX
Mapping Specialist: Sarah Jennings, Cardno ENTRIX
Preparation Date: 1/13/2014
Revision: 01/13/2014

Note: "This exhibit depicts information and data produced in accordance with the U.S. Army Corps of Engineers wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual. Sources have not been independently verified and may be subject to minor adjustments if exact locations are required."
Preparation: 10/13/2013 San Francisco, California © PPS 0400 Feet
Aerial Date: Source: Bing Imagery 7/10/2013

CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING

12

APPLICANT: ALPINE CO. Fish and game commission
Name
20188 State Route 89
Address
MARKLEEville ALPINE CA 96120
City County State Zip Code
wngentry@icloud.com 707-889-3943
Email Telephone #

APPLICANT'S AGENT (if different from Applicant):

WALT Gentry
Name
20188 State Route 89
Address
markleeville ALPINE CA 96120
City County State Zip Code
wngentry@icloud.com 707-889-3943
Email Telephone #

PROJECT NAME: Fish stocking

PROJECT LOCATION/ADDRESS: East & West Fork Carson Rivers
markleeville & Silver Crk's Lake ALPINE

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

Stocking Rainbow trout in ALPINE Co. WATERWAYS

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

Stocking WATERWAYS in ALPINE Co. to Promote
Tourism benefiting ALL Businesses.

TOTAL ESTIMATED PROJECT COST: \$196,000

AMOUNT REQUESTED FROM CWSD: \$50,000

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.

At this point we have lost funding of \$40,000
From Chamber of Commerce and \$56,000 from SLTPAD
We are starting with \$22,000 and will be going to
the Board of Supervisors to Request Funding

ESTIMATED DATE PROJECT TO BEGIN: 05/1/2021

ESTIMATED TIME TO COMPLETE PROJECT: 11/1/2021

(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.

Private Stocking Permit From State of CA
Application for Importation Permit From State of CA.
Estimated time of approval 4-1-2021

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

SIGNED:

Walt Gentry

NAME:

WALT GENTRY

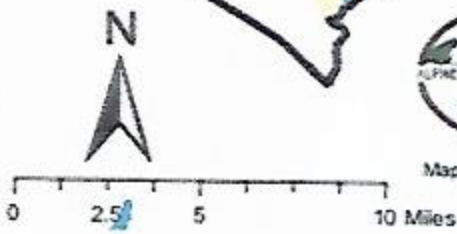
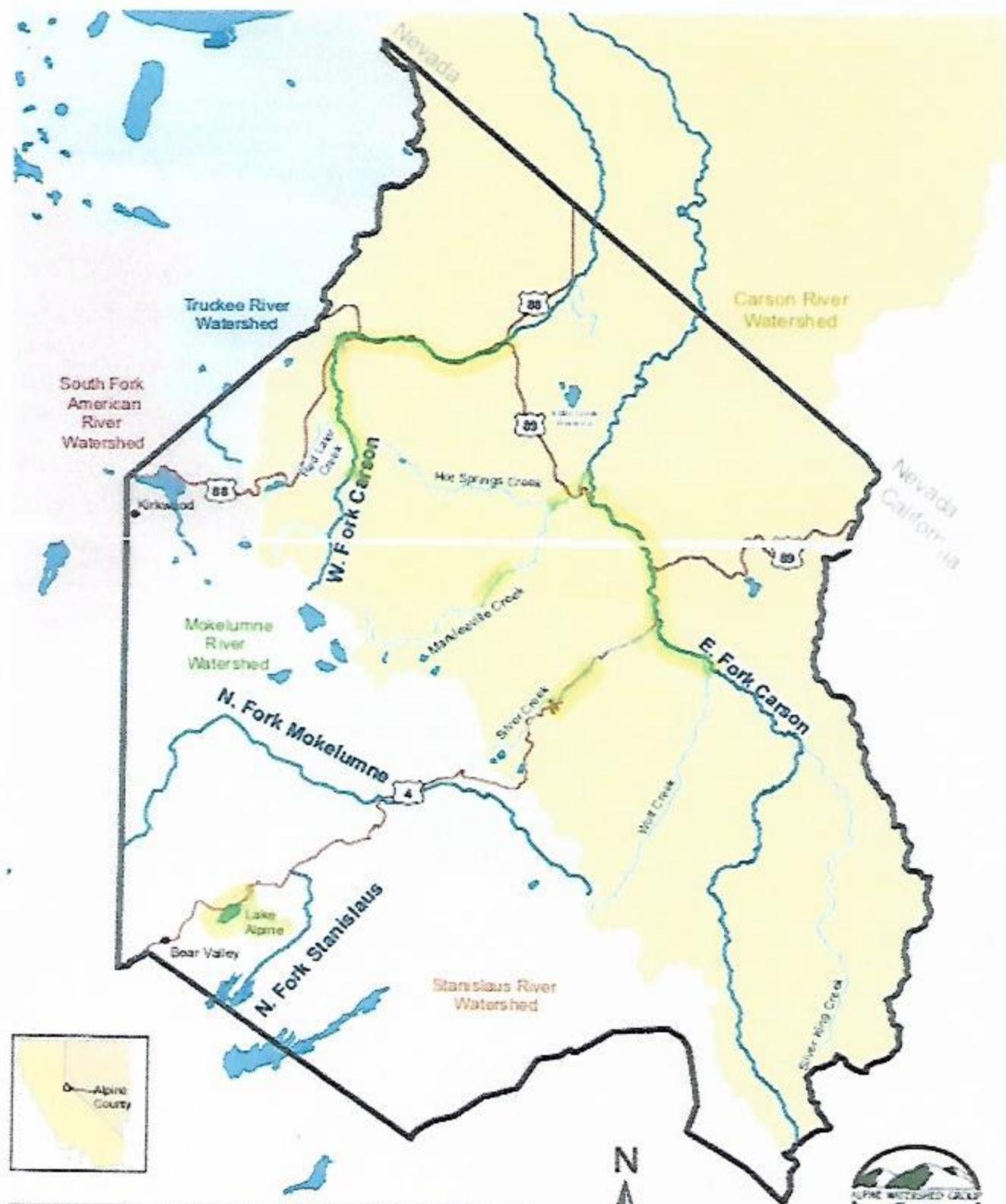
TITLE:

Fish and game chairman

DATE:

2/4/2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.



Map by Mo Loden

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

13

APPLICANT: Town of Gardnerville - Erik Nilssen

Name _____
1407 Highway 395 N
Address _____
Gardnerville Douglas NV 89410
City _____ County _____ State _____ Zip Code _____
Email ehnilssen@douglasnv.us Telephone # 775-782-7134

APPLICANT'S AGENT (if different from Applicant):

Name _____
Address _____
City _____ County _____ State _____ Zip Code _____
Email _____ Telephone # _____

PROJECT NAME: Gardnerville Station Outlet Piping

PROJECT LOCATION/ADDRESS: 1395 Highway 395 N
Gardnerville, NV

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

The Town installed a 13,000 CF underground detention reservoir under the Town owned Gardnerville Station in 2020. NDOT is going to connect to the reservoir in 2022. The Town must install a pipe from the reservoir to the Martin Slough along with pumps to get the storm water into the pipes and to the slough. The project will reduce flooding in the S-Curve section of US 395 as well as prevent direct discharge of storm water from the highway to the Martin Slough and will allow for suspended solids to settle out of the storm water.

PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The Town believes the goals No.1 and No. 2 will be improved by this project. The project will provide 13,000 cubic feet of flood water storage to aid in regional flood improvements. The project will reduce flooding on a US Highway improving transportation. The project will allow for the settlement of suspended solids including polluted highway runoff to settle out instead of directly discharging into the Martin Slough.

TOTAL ESTIMATED PROJECT COST: \$270,000

AMOUNT REQUESTED FROM CWSD: \$70,000

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.

The Town is the only funding source. NDOT will be completing work in 2022 to connect to the reservoir

ESTIMATED DATE PROJECT TO BEGIN: Late Fall 2021 or early Spring 2022

ESTIMATED TIME TO COMPLETE PROJECT: 30 days
(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.

We believe we will need an both a Douglas County Site Improvement Permit and Building Permit. The Town anticipates submitting these permits within the next two months.

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

SIGNED:

Erik Nilssen

NAME:

Erik Nilssen

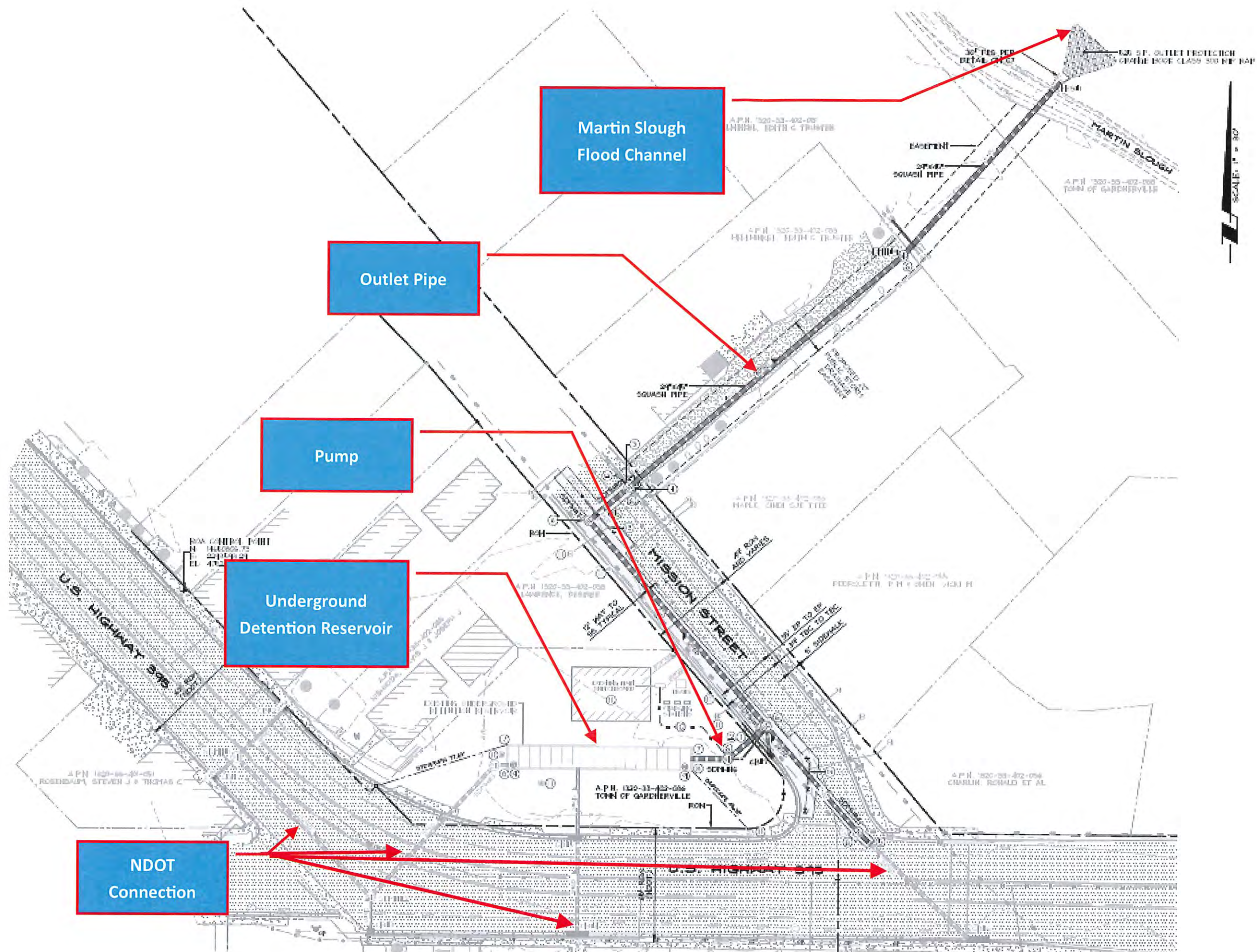
TITLE:

Town Manager

DATE:

2-3-21

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.



**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

14

APPLICANT: Churchill County, c/o Jim Barbee, County Manager

Name

155 N. Taylor St., Ste 153

Address

Fallon

Churchill

NV

89406

City

County

State

Zip Code

jbarbee@churchillcounty.org

(775) 423-5136

Email

Telephone #

APPLICANT'S AGENT (if different from Applicant):

Chris Mahannah, P.E. Mahannah & Associates, LLC

Name

P.O. Box 2494

Address

Reno

Washoe

NV

89505

City

County

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

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. Additional sheets may be attached.

See attached Exhibit A & copy of Power Point presentation dated 12/14/20 which was presented to Churchill County BOC at a workshop for new Commissioners providing an overview of water resource related issues in Basin 101, including the water level monitoring program.

TOTAL ESTIMATED PROJECT COST: \$54,000.00

AMOUNT REQUESTED FROM CWSD: \$44,000

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.

ESTIMATED DATE PROJECT TO BEGIN: 7/1/21

ESTIMATED TIME TO COMPLETE PROJECT: 6/30/24

(If completion date is greater than a year, please indicate how much funding is needed in each fiscal year.) FY21/22: \$14,500; FY22/23: \$14,500; FY23/24: \$15,000

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 & copy of Power Point presentation dated 12/14/20 which was presented to Churchill County BOC at a workshop for new Commissioners providing 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: 02/04/2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

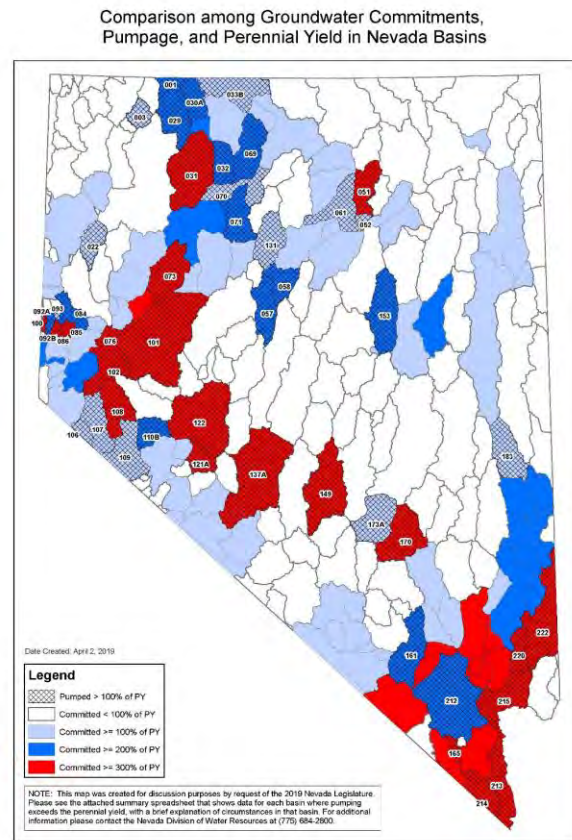
Exhibit A

Introduction:

The Lahontan Valley aquifer system consist 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. As shown on the State Engineer map below, committed rights exceed PY by over 300% and estimates of pumping exceed the PY as well. This map was presented in the last Legislative session by the State Engineer to demonstrate the status of basin over appropriation throughout the state. For this reason, 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 2/1/18. 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 #2018-13 in the amount totaling \$56,000 was provided for a 3-year term which ends 6/30/21. It is anticipated there will be a few thousand dollars remaining under the current contract, therefore this 3-year funding request was reduced to a request of \$44,000 from CWSD. This \$12,000 reduction in our request is more reflective of historical "actual" expenditures; and takes into account an increase in Churchill County's match. The county is proposing contribution of in-kind services for administrative costs as well as a direct match of \$10,000 of the total project cost. Therefore, the funding request for this application is seeking \$44,000 for a 3-year 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 FY23/24.

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 a presentation to the Churchill County BOCC on 2/1/18. 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 as a result 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

YEAR	ALLOCATION	CUTOFF DATE
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 have 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 is currently funded to construct a redundant municipal well (SC#2) 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.

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 FY23/24, however it is anticipated for this program to be successful as a long-term management tool, it be continued as an ongoing effort. Ongoing data summary presentations similar to that given to the Churchill County BOCC on 2/1/18 & the attached at the new Commissioners workshop on 12/14/20 will be provided, including a map of wells monitored in the Churchill and USGS networks, key hydrographs and discussion of the data or any trends observed.

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FLOOD PROTECTION PROJECT FUNDING**

15

APPLICANT: Truckee-Carson Irrigation District

Name

PO Box 1356

Address

Fallon

City

Churchill

County

Nevada

State

89407-1356

Zip Code

775-423-2141

Telephone Number

775-423-5354

Fax Number

PROJECT NAME: Carson River Diversion Dam

PROJECT LOCATION: Approximately 5 miles downstream of the Lahontan Dam

in Churchill County, Nevada.

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

This project consists of the application of a product, Aqualastic™, more fully described in the attachment hereto, to the concrete surfaces of the Carson River Diversion Dam (Dam). The Dam is located approximately five (5) miles downstream of Lahontan Dam in Churchill County, Nevada. Aqualastic™ is a polyurea elastomeric coating that when applied to concrete serves to seal cracks preventing damage to facilities, check undesired flows, and prevent water loss. (See product description enclosed herewith). We have used this product extensively in the Newlands Project and with particular success on the Truckee Canal. (See the District's "Testimonial" enclosed herewith).

The Dam is a United States Bureau of Reclamation facility constructed in 1906. (See photographs enclosed herewith). It serves to divert water released from Lahontan Dam, flowing in the Carson River channel, in one of three (3) ways: 1. Through a series of gates directing continuing flow in the Carson River Channel; 2. Through the head-works of the V-Line Canal; and, 3. Through the head-works of the T-Line Canal. The Dam is 24 feet long with a 225-foot long, 31-foot high concrete control section. In flood operations conducted in 2017, we diverted approximately 3,320 cfs of flow from Lahontan Dam. Then, at the Carson Diversion Dam, we diverted as much as 1,700 cfs. into the V-Line Canal, 1,200 cfs. in the Carson River Channel (the Carson River gates are capable of 1,950 cfs), and approximately 200 cfs in the T-Line Canal.

Pivotal to continuing water management of water on the Carson River, is our ability to make diversions through the Diversion Dam. In this application we seek to apply Aqualastic™ to cracks in the concrete of the dam thus encapsulating degraded sections of concrete. As stated previously, the Diversion Dam is very old; and, the useful life of its concrete was exceeded long-long ago. While, our hope is to replace the Diversion Dam in the future, its use in both regular operations and in flood operation remains absolutely essential. Application of Aqualastic™ will serve to prolong the life of the Diversion Dam –protecting it against potential failure particularly amidst flood operations. Protecting the dam from failure serves, ultimately, to protect all property owners on the Carson River below it from flood waters that could not be controlled.

TOTAL ESTIMATED PROJECT COST: \$50,000.00

AMOUNT REQUESTED FROM CWSD: \$50,000.00

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.

No other funding source identified. Aqualastic™, is a sole source product that must be applied by an individual bearing product application certification. The District will contribute time and materials in preparation of application of the product, including, removal of debris and facility cleaning as necessary.

ESTIMATED DATE PROJECT TO BEGIN:

Following the award of the Grant, project is for the 2021-2022 Fiscal year, post water season.

ESTIMATED TIME TO COMPLETE PROJECT:

Approximately one (1) week.

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

See enclosures.

SIGNED: 

NAME: Rusty D. Jardine, Esq.

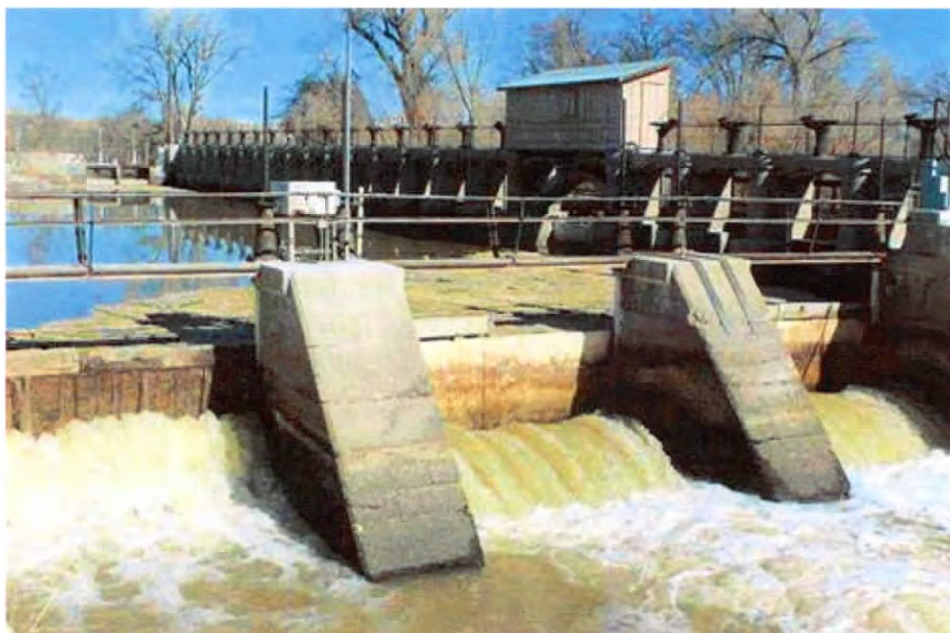
TITLE: General Manager

DATE: February 4, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.



*Carson River
Diversion Dam
— downstream
view*



Carson River
Diversion Dam
— V-Line Canal
Headworks.



How the water flows | NevadaAppeal.com

Images may be subject to copyright. [Learn More](#)

*Carson River
Diversion Dam
- Down stream
view in
flood operations
2017*

[Home](#)[AquaLastic® System](#)[Projects](#)[Testimonials](#)[Online Quote](#)[Customer Service](#)[Certified Applicators](#)[Contact Us](#)[Home](#)

The AquaLastic® Concrete Repair System

Prolong the Life of and Protect your Infrastructure

Our solution is a complete concrete repair system capable of fixing many different areas and types of degradation problems in concrete, earthen

and metal canals, flumes, spillways, flood control channels, dams and other structures.

The AquaLastic® Concrete Repair System has millions of linear feet of successful application over more than 23 years in many irrigation districts and government run projects in the Western United States and has a highly proven track record. It is a non-toxic product that has been extensively tested and is safe in irrigation waters, including potable water.

As American technology and manufactured in the USA, AquaLastic® has the highest and most reliable standards by an ISO 9001 qualified company, bringing high efficiency, longevity and major cost savings when compared to other methods of concrete canal repair.

Our system is a valuable tool for funding and grants opportunities because it offers many improvements and water efficiency options, and may also be utilized for job creation. It is a flexible solution to many issues currently facing irrigation, as *each repair program is designed to suit the individual requirements of the customer.*



Conserve

Conserve the most valuable of our natural resources – water.



Reduce

Reduce your losses and increase your delivery efficiency.

[See How AquaLastic® Works](#)

[View Our Testimonials](#)



Testimonials

TCID



" Like other irrigation districts throughout the Western United States, the Truckee-Carson Irrigation District (Nevada) has benefited greatly from the application of AquaLastic®, a polyurea elastomeric coating, to structures in the Newlands Federal Reclamation Project. We view AquaLastic® as an excellent product with which to encapsulate degraded sections of concrete -including canal linings, thus arresting the advance of facility deterioration. AquaLastic® has been applied broadly to sections of lining in the Truckee Canal; and, after many years in use, the product continues to perform without fail its role which includes the elimination of seepage from the Canal.

Rusty D. Jardine, Esq.
District Manager

Davis & Weber Counties Canal Company



" Our secondary reservoir has been leaking through the joints for years. In the past, we've tried to clean the joints out and seal them as best we could, even replacing sections with new concrete. AquaLastic was our last attempt to seal the reservoir without completely replacing the

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PROJECT GOALS AND BENEFITS: Briefly describe the project goals and benefits to be realized if the project is implemented. Additional sheets may be attached.

The Plan of Study will present a comprehensive planning approach to the preparation of the Basin Study, including:

- Description of the Basin Study management structure
- Identification of additional agencies and organizations to participate as cost-share partners or stakeholders in the Basin Study
- Description of cost share or in-kind services proposed by each cost-share partner
- Assessment of model development which is underway or has been completed in the Carson Basin to determine if these models, or others, can be used in the climate impact assessments and performance analysis of adaptation strategies proposed in the Carson Basin Study
- Identification of models that need to be developed for completion of the Basin Study with an estimated cost and schedule
- Description of study approach for water supply and demand assessment, system risk and reliability analysis, and development of adaptation strategies
- Identification of Basin Study stakeholders
- Development of Public Involvement Plan
- Development of Basin Study schedule and budget

TOTAL ESTIMATED PROJECT COST: \$150,000
AMOUNT REQUESTED FROM CWSD: \$25,000 plus In-kind service

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.

USBR WaterSmart Grant

ESTIMATED DATE PROJECT TO BEGIN: N/A

ESTIMATED TIME TO COMPLETE PROJECT: N/A

(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

SIGNED: Edwin D. James

NAME: Edwin James

TITLE: General Manager

**CARSON WATER SUBCONSERVANCY DISTRICT
REQUEST FOR FUNDING**

17

APPLICANT: Megan Poff
U.S. Geological Survey
160 N. Stephanie St.
Henderson, NV 89074
mpoff@usgs.gov

702-595-6837

APPLICANT'S AGENT (if different from Applicant):

Name

Address

City

County

State

Zip Code

Email

Telephone #

PROJECT NAME: Surface-Water Monitoring Program in West-Central Nevada

PROJECT LOCATION/ADDRESS: West-Central Nevada

PROJECT DESCRIPTION: This funding request is for the continuation of the cooperative monitoring program between Carson Water Subconservancy District and the U.S. Geological Survey for surface-water monitoring program activities in the Carson River Basin for CWSD fiscal years (FY) 2021-2022 (July 1, 2021 – June 30, 2023). Surface-water O&M costs include maintaining the streamgaging equipment at 10 gaging stations, real-time monitoring and display of water information, making streamflow measurements, computing streamflow, quality assurance, and data publication and archive in NWIS (National Water Information System) database.

PROJECT GOALS AND BENEFITS: Streamflow information and flow measurements provided at real-time and non-real-time gages in the Carson River Basin define hydrologic conditions throughout the basin, such as sources, sinks, and fluxes of water. Accurate flow data from streamgages provide critical information for water accounting for legal agreements, river and project operations, hazard forecasts, water-quality assessments, and research (such as interaction of water systems; groundwater/surface-water interactions).

TOTAL ESTIMATED PROJECT COST: \$263,518

AMOUNT REQUESTED FROM CWSD: \$158,111

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.

Pending availability of funds from the Cooperative Water Program, U.S. Geological Survey will provide \$105,407 toward this program.

Costs of the program are increasing because of increasing equipment and personnel costs. The 2021 USGS Nevada Water Science Center standard for awarding funds from the Cooperative Water Program is 35% USGS, 65% cooperator. However, in recognition of the long-standing program that Carson Water Subconservancy District has operated in cooperation with the USGS and also to assist with the cost increases, the USGS proposes to provide 40% matching funds to this agreement if it is fully funded.

ESTIMATED DATE PROJECT TO BEGIN: July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: Two years ending on June 30, 2023

For CWSD FY21 (July 1, 2021-June 30, 2022), amount requested from CWSD is: \$77,022 (USGS will provide \$51,348)

For CWSD FY22 (July 1, 2022-June 30, 2023), amount requested from CWSD is: \$81,089 (USGS will provide \$54,059)

PERMIT REQUIREMENTS: No permit required to proceed.

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

SIGNED:

NAME: Megan Poff
TITLE: Nevada Data Chief

DATE: January 29, 2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

FY2021-2022 Carson Water Subconservancy District/U.S. Geological Survey Cooperative Water-Resources Monitoring Program

Station Number	Location	FY2021 (July 1, 2021 – June 30, 2022)			FY2022 (July 1, 2022 – June 30, 2023)			Total JFA		
		CWSD	USGS*	Total FY21	CWSD	USGS*	Total FY22	CWSD	USGS*	Total JFA
10308200	East Fork Carson River below Markleeville Creek nr Markleeville, Ca (Daily streamflow & DCP) ¹	5,700	3,800	9,500	5,970	3,980	9,950	11,670	7,780	19,450
10310000	West Fork Carson River at Woodfords, CA (Daily Streamflow & DCP) ²	7,230	4,820	12,050	7,560	5,040	12,600	14,790	9,860	24,650
	Additional measurements during summer at West Fork Carson – Woodfords and Carson River nr Carson City (12 additional discharge measurements)	3,000	2,000	5,000	3,840	2,560	6,400	6,840	4,560	11,400
10310405	Carson River near Genoa, NV (Daily Streamflow)	9,660	6,440	16,100	10,080	6,720	16,800	19,740	13,160	32,900
10310400	Daggett Creek near Genoa, NV (Daily Streamflow)	9,660	6,440	16,100	10,080	6,720	16,800	19,740	13,160	32,900
10310500	Clear Creek nr Carson City, NV(Daily Streamflow and DCP)	11,400	7,600	19,000	11,940	7,960	19,900	23,340	15,560	38,900
10311000	Carson River at Carson City, NV (Daily Streamflow) ^{2,4}	3,774	2,516	6,290	3,774	2,516	6,290	7,548	5,032	12,580
10311000	Carson River at Deer Run Road, NV (Daily streamflow and DCP)	11,400	7,600	19,000	11,940	7,960	19,900	23,340	15,560	38,900
10311700	Carson River at Dayton, NV (DCP, daily streamflow December through March)	3,798	2,532	6,330	3,978	2,652	6,630	7,776	5,184	12,960
10312000	Carson River at Fort Churchill, NV (Daily Streamflow & DCP) ³	5,700	3,800	9,500	5,957	3,971	9,928	11,657	7,771	19,428
10348460	Franktown Creek nr Carson City, NV (Daily Streamflow and DCP, May – Oct.)	5,700	3,800	9,500	5,970	3,980	9,950	11,670	7,780	19,450
Total		77,022	51,348	128,370	81,089	54,059	135,148	158,111	105,407	263,518

*USGS contributions are subject to availability of Federal Matching Funds.

¹Bureau of Reclamation provides a portion of the funding.

²Carson-Truckee Water Conservancy District provides a portion of the funding.

³Nevada Department of Environmental Protection provides a portion of the funding.

⁴USGS National Streamflow Information Program (NSIP) provides a portion of the funding.

DCP: Data Collection Platform

CARSON WATER SUBCONSERVANCY DISTRICT REQUEST FOR FUNDING

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APPLICANT: Megan Poff
U.S. Geological Survey
160 N. Stephanie St.
Henderson, NV 89074
mpoff@usgs.gov

702-595-6837

APPLICANT'S AGENT (if different from Applicant):

Name

Address

City

County

State

Zip Code

Email

Telephone #

PROJECT NAME: Groundwater and Water-Quality Monitoring Program in West-Central Nevada

PROJECT LOCATION/ADDRESS: West-Central Nevada

PROJECT DESCRIPTION: This funding request is for the continuation of the cooperative monitoring program between Carson Water Subconservancy District (CWSD) and the U.S. Geological Survey (USGS) for groundwater and water-quality monitoring program activities in Douglas and Lyon Counties, NV, for CWSD fiscal years (FY) 2021-2022 (July 1, 2021 – June 30, 2023). Groundwater monitoring includes water-level data collection, data entry, quality assurance, and data publication and archive in NWIS (National Water Information System) database. Monitoring includes a quarterly network of 20 wells in Carson Valley and Fish Springs, and an annual network of 10 wells in the Fish Springs and Silver Springs areas that may be subject to water-level changes.

Water-quality monitoring includes sample collection, chemical analyses for selected constituents and indicators, supplies, data entry, quality assurance, and data publication and archive in NWIS (National Water Information System) database. Monitoring includes an annual network of 6 domestic wells and a semi-annual network of 5 wells.

PROJECT GOALS AND BENEFITS: Streamflow information and flow measurements provided at real-time and non-real-time gages in the Carson River Basin define hydrologic conditions throughout the basin, such as sources, sinks, and fluxes of water. Accurate flow data from streamgages provide critical information for water accounting for legal agreements, river and project operations, hazard forecasts, water-quality assessments, and research (such as interaction of water systems; groundwater/surface-water interactions).

TOTAL ESTIMATED PROJECT COST: \$57,300
AMOUNT REQUESTED FROM CWSD: \$34,380

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.

Pending availability of funds from the Cooperative Water Program, U.S. Geological Survey will provide \$22,920 toward this program.

Costs of the program are increasing because of increasing equipment and personnel costs. The 2021 USGS Nevada Water Science Center standard for awarding funds from the Cooperative Water Program is 35% USGS, 65% cooperator. However, in recognition of the long-standing program that Carson Water Subconservancy District has operated in cooperation with the USGS and also to assist with the cost increases, the USGS proposes to provide 40% matching funds to this agreement if it is fully funded.

ESTIMATED DATE PROJECT TO BEGIN: July 1, 2021

ESTIMATED TIME TO COMPLETE PROJECT: Two years ending on June 30, 2023

For CWSD FY21 (July 1, 2021-June 30, 2022), amount requested from CWSD is: \$16,800 (USGS will provide \$11,200)

For CWSD FY22 (July 1, 2022-June 30, 2023), amount requested from CWSD is: \$17,580 (USGS will provide \$11,720)

PERMIT REQUIREMENTS: No permit required to proceed.

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

SIGNED:

NAME: Megan Poff
TITLE: Nevada Data Chief
DATE: 1/29/2021

THE CARSON WATER SUBCONSERVANCY DISTRICT RESERVES THE RIGHT TO DENY ANY AND/OR ALL APPLICATIONS FOR FUNDING.

**FY2021-2022 Carson Water Subconservancy District/U.S. Geological Survey Cooperative Water-Resources
Groundwater and Water-Quality Monitoring Program**

July 1, 2021 – June 30, 2022

Task	CWSD	USGS	Total Task Funding
Groundwater levels (20 wells quarterly, 10 wells annually, and includes all supplies and materials, data entry and quality assurance, landowner communications, and monitoring network evaluation/review)	8,100	5,400	13,500
Water-quality sampling (sample six wells annually and 5 wells two times per year, and includes all supplies and materials, data entry and quality assurance, and laboratory costs)	8,700	5,800	14,500
CWSD FY2021 Total	16,800	11,200	28,000

July 1, 2022 – June 30, 2023

Task	CWSD	USGS	Total Task Funding
Groundwater levels (20 wells quarterly, 10 wells annually, and includes all supplies and materials, data entry and quality assurance, landowner communications, and monitoring network evaluation/review)	8,340	5,560	13,900
Water-quality sampling (sample six wells annually and 5 wells two times per year, and includes all supplies and materials, data entry and quality assurance, and laboratory costs)	9,240	6,160	15,400
CWSD FY2022 Total	17,580	11,720	29,300
Agency Total Funding	34,380	22,920	57,300

¹ Annual groundwater level measurements at ten wells in Silver Springs and Fish Springs areas started in CWSD FY2015.

² Water-quality constituents and indicators include field values, major ions, trace elements, low-level nutrients, and physical properties.