



**TRI SAGE CONSULTING**  
**Monthly Report**  
**Carson Truckee Water Conservancy District**

---

January 6, 2022

**MONTHLY ACTIVITIES- November/December 2021**

- 1) Completed USACE Semi Annual Inspection with Superintendent.
- 2) Coordinated with City of Reno regarding debris collection in the Cochran Ditch at Wingfield Park and held field meeting to discuss.
- 3) Closely monitored river flows during weather event in late December. Completed follow up field inspections to inventory debris and erosion.
- 4) Completed debris removal project at the island downstream of Wingfield Park and at Mayberry Park with Nevada Environmental prior to the flood event in late December.
- 5) Issued written authorization to Q&D/Ames to complete construction within the floodway during flood season on the NDOT SBX project. Provided notification on December 17<sup>th</sup> of expected high flow event.
- 6) Finalize Debris Removal Scope of Work Documents and Contracts; field inspect removal needs & access and request pricing. Work to continue in November pending river flows.
- 7) Coordinated with Washoe County on next steps for removal of the South Side Diversion (Ambrose Dam).
- 8) Issued updated grant schedule and criteria for 2022-2023 grant window.
- 9) Correspond with Farr West Engineering regarding City of Reno Siphon project at Booth Street. Provided HEC-RAS model to support proposed modeling.
- 10) Followed up with SWCA regarding One Truckee River Vegetation Management project and provided HEC-RAS model.
- 11) Held project meetings with Jacobs and RTC regarding Arlington Bridges replacement. Provided HEC-RAS model to support proposed modeling.
- 12) Attended field meeting with Atkins regarding TMWA's proposed Glendale Portage Path. Provided HEC-RAS model to support proposed modeling.
- 13) Reviewed proposed City of Reno Portland Loo project in Bicentennial Park upstream of Wingfield Park.
- 14) Review projects near river for Permit requirements; provide inundation maps for parcels, as required.
- 15) Work with Ron on a plan moving forward for the West Street Plaza and Riverside Drive encroachments.

## **UPCOMING ACTIVITIES**

- 1) Finalize and submit the USACE Semi Annual Inspection Report.
- 2) Prepare for the next quarterly meeting with the USACE to allow for regular communication, as well as updates on permit status. Upcoming discussion to include the Arlington Bridges Replacement and the Booth Street Siphon project.
- 3) Finalize work on guidance document and installation details for rip rap placement for erosion repairs within the 14,000 cfs flood channel. Discuss preliminary erosion guidelines with City or Reno and SWCA to possibly incorporate along with their vegetation management effort.
- 4) Finalize revisions to draft of new CTWCD grant agreement and incorporate final comments before sending to Todd and Ernie for review.
- 5) Continue to collaborate with the City Forester for the removal of hazard trees within the 14,000cfs flood channel if budget dollars permit.
- 6) Continue to collaborate with TRFMA and their modeling engineers to discuss status of their HEC-RAS modeling and future coordination.
- 7) Schedule meeting with City of Reno Public Works Engineer, Parks Managers and Clean and Safe Manager to discuss erosion repairs needed between Champion Park and Fisherman's Park II.
- 8) Work with the City of Reno to pursue a permanent encroachment permit for the West Street Plaza and any associated projects.
- 9) Continue to evaluate and discuss temporary flood control measures including flow limitations, cost, storage, installation requirements and options for West Street Plaza and Booth-Riverside Drive areas.
- 10) Request an updated copy of the City of Reno Flood Fighting Plan from the Public Works Department.
- 11) Continue working with project proponents for encroachment permit applications for City of Reno Siphon at Booth Street, RTC Mixed Use Path, USFWS fish passage projects, Arlington Bridges replacement project and other projects within the 14,000cfs flow channel.
- 12) Share modeling evaluation of the deposits within the Kayak Park Project in Wingfield Park with the City of Reno and establish a river capacity maintenance plan with the City based on this evaluation.
- 13) Schedule informational meetings with potential entities with river crossings to inform them of CTWCD maintenance activities/capabilities and 408 Encroachment Permit requirements for projects along and across the river. Communicate changes to the 408 Permit process with likely applicants including the City, and utilities; update on Categorical Permission review and differences. Communicate updated fees and Fee Policy for 408 Permit Review if approved by the Board.
- 14) Continued coordination with City of Reno for 1) Flood Response evaluation and incorporation of Interim Risk Reduction Measures into their Flood Response Plan for West Street Plaza, Oxbow Park Platform and Riverside Drive, and 2) Flap-gate Installation Phase 2 needs assessment and installation project.

## **SUMMARY REPORT**

Tri Sage completed the Semi-Annual inspection as required by the USACE under the Martis Agreement. The report for this inspection has been drafted and will be included along with the debris removal report for submittal to the USACE. During the inspection it was noted that a few of the parapet wall railing posts were deteriorating near Sierra Street and exposed rebar was rusting; in one case the wall is beginning to crack from the top down. The City of Reno will be notified again of this failure and the need for repairs prior to this deterioration causing failure of the flow channel wall. Tri Sage noted that the gabion walls along Riverside need to be cleared of vegetation and will request that the City of Reno complete this work this upcoming spring. During the inspection, the recently completed flow modeling and associated inundation mapping was utilized to better assess the flood channel boundaries for evaluation of tree and debris removal needs. Otherwise, there were no notable findings during the inspection.

Tri Sage met with the City of Reno on November 10th to discuss the debris blockage at the Cochran Ditch intake on the corner of Sierra Street and Island Avenue. There was a fairly substantial blockage starting approximately 100 feet upstream of the intake grate. The debris consisted of mostly wood debris, with the largest pieces being about 18 inches in diameter and 10-15 feet long. Downstream of the footbridge connecting Wingfield Park and Island Avenue, there was larger debris including a 40' log that would typically fall within CTWCD's debris removal scope. We discussed the possibility of partnering with the City of Reno with CTWCD focusing on the larger debris, especially on the blockage next to the footbridge. The City did move forward with hiring a contractor to clean out the Cochran Ditch and the City of Reno's Forester removed the log and an additional willow on November 23<sup>rd</sup> before we could even get a contractor out there!

The Fall 2021 Debris Removal Project continued in December with a rushed project on December 20<sup>th</sup> ahead of projected high flow events. Nevada Environmental removed a large log at Wingfield Park, as well as another large downed tree at Mayberry Park. Additional work is still being scoped and debris removal projects will continue through the next few months. Tri Sage is reassessing the debris removal scopes as much of the planned debris was transported downstream during the high flow event. In January, we will work to remove a dead elm in Broadhead Park, as well as a dead tree leaning toward the river along the walking path west of Idlewild Park.

There was a large weather event in late December and Tri Sage monitored river conditions closely while staying in contact with the Federal Water Master regarding weather and river forecasts. Tri Sage also notified the City of Reno and Ames/Q&D of the possible flood conditions to make sure their projects were secured.

RTC has selected Jacobs as the most qualified consultant to provide environmental and engineering design services for the Arlington Avenue Bridges Replacement Project. RTC is kicking off the NEPA/Design Phase of this Project that will replace two bridges over the Truckee River on Arlington

Avenue from Island Avenue to First Street. RTC would like to start construction in 2024. Tri Sage has held two meetings with the Jacobs team to provide information on the 408 permitting process, as well as history and details of the CTWCD HEC-RAS model. Tri Sage reiterated CTWCD's comments and recommendations regarding the design of the Arlington Bridge Replacement, which was sent via letter to RTC in March 201, including the need for access to the river from the bridge deck, as well as from the river banks, and the requirement that the water surface elevation is not increased by more than 0.1 ft as a result of the project. Jacobs is planning to pursue a Categorical Permission for the USACE 408 Permit.

After the small flood event in October, Tri Sage completed a site inspection at the NDOT SBX project. There was small equipment, material, debris, as well as sanitary facilities that were being stored below the Kietzke bridge that fell within CTWCD's 14,000 cfs jurisdiction. It is a condition of the 408 permit that "In the event flows in the Truckee River are predicted to exceed 8,000 cfs during the construction period, the Grantee and/or designee or contractor shall remove all the construction equipment, material and/or de-watering appurtenances above estimated 100-year flow elevation or from area of potential impact before river flow exceeds conditions for safe operation of equipment within the river channel." River flows during the evening of October 24<sup>th</sup> were forecasted to be approximately 10,000 cfs. We immediately contacted Ames/Q&D reminding them of this permit condition, as well as the requirement to formally request the Board's permission to continue work in the floodway during flood season. Ames/Q&D responded immediately and submitted an updated letter for the Board's consideration at the November Board meeting and the formal approval from the Board was sent to Ames/Q&D on November 12<sup>th</sup>. Tri Sage still continues to complete regular inspections of this project.

We continue to collaborate with the City of Reno Forester and his team. They are still planning a willow mastication project and collaboration for debris removal in the downtown area when river flows reduce. We are also discussing some opportunities for teaming on a few hazard trees that the Forester has identified for potential removal.

An on-site kick-off meeting was held on November 12<sup>th</sup> to review the One Truckee River (OTR) Vegetation Management Pilot Project at Broadhead Park and receive input from relevant stakeholders. OTR has received funding for a pilot restoration project at Broadhead Park from Truckee River Fund. Both Lori Williams and Kayla Dowty attended that kick-off meeting. SWCA has put together a very comprehensive framework plan and support tools that is intended to support future revegetation projects along the river. Tri Sage (Lori Williams) participated in the final technical working group for the One Truckee River (OTR) Vegetation Management Planning effort on December 2<sup>nd</sup> to provide feedback on that framework. Additionally, Tri Sage followed up this month to provide the most current HEC-RAS model to further support the project as it moves into technical design phase.

USACE scheduled a quarterly meeting with CTWCD to allow for regular discussion and updates. The first meeting was held on May 27<sup>th</sup> and was very productive. Mike Fong provided a standing agenda to

include review of the status of any permits currently under review, discussion of any upcoming permits that are expected to be submitted, review of USACE's categorical permissions and open discussion on what is currently going on in our area. Tri Sage was able to update them on some of the recent activity within our jurisdiction and there was really good discussion on each of the topics. Tri Sage is planning to request another meeting to review the upcoming 408 projects.

Washoe County reached out to CTWCD in early June because they were contacted by an avid river rafter about an abandoned diversion structure near Ambrose Park in west Reno. The County is concerned that the structure poses a risk for rafters and other river recreationists. They asked whether the structure could be removed and if it would require a 408 Encroachment Permit. Tri Sage contacted the Federal Water Master's office to find out the history of the structure, as well as ownership. The Water Master said that the old diversion structure was part of the old South Side Canal and that all of the water rights in the South Side Canal were transferred to the Lake Ditch (state permit 11489, certificate 4827) in 1948. Since there aren't any valid water rights served by the structure and the ditch has long been abandoned, no one "owns" the structure. Additionally, Tri Sage researched the Martis Creek Agreement and it seems that the diversion structure was likely "grandfathered" in. A field meet was held on August 18<sup>th</sup> to further discuss the project and the permit impacts. Washoe County is looking for funding opportunities to complete the project. Tri Sage followed up via phone call to USACE and confirmed that a 408 permit would not be required for removal of the structure. This information was passed on to the County. County staff is planning to present the project to the parks commission to ask for support and then work on a plan to secure project funding. Tri Sage received an update from the County in early January stating that the County does not have capacity to move forward on this project this year. The project would have to be managed by their Capital Improvements Project team because it would be over \$100k and there is not enough staff to include this project in this year's improvements. There is support from upper management, but it is not as high of a priority as other projects. Washoe County Parks did add the Ambrose dam removal project to our 5-year CIP list and hope to circle back next year. Independently, the District received a call from Charles Albright who represents the paddling community and is very passionate about this project. He is working to request Congressional support and would like to make a presentation to the Board at the February meeting to ask for a letter of support.

Tri Sage held initial discussions with Farr West Engineering who is completing the design for the Booth Street Siphon project on behalf of the City of Reno. This project will require a bore under the river. A 408 Encroachment Permit will be required as the requirements applies to any projects going over, under or thru the 14,000 CFS flood channel. Tri Sage provided the current 408 application, as well as the HEC-RAS model for that section of the river, and let them know they could expect an 18 month permitting window. A siphon project was previously completed by Farr West and CoR and some hurdles were addressing the scour, as well as the depth of bore. Tri Sage also alerted them that it would be best to keep all excavation outside of the 14,000 CFS channel which could be difficult due to the inundation in this area on the north side of the river.

Tri Sage had a field meeting with Atkins Engineering in regards to the proposed plans for TMWA's Glendale Portage Path. At the recommendation from Lori, Atkins has kept all grading and encroachment activity outside of the 14,000 cfs boundary upstream of the Glendale Bridge. They are proposing some new path grading downstream of the bridge which falls under the Nevada Department of Water Resource's jurisdiction below 6,000 cfs. We provided the CTWCD HEC-RAS model to support mapping of that 6,000 cfs boundary, but no 408 permit application is expected for this project.

Tri Sage had a discussion with City of Reno regarding a proposed Portland Loo installation in Bicentennial Park just upstream from the Arlington Bridge. Tri Sage completed a Water Surface Elevation figure for the proposed location and confirmed that it is outside of the 14,000 cfs boundary, so no 408 permit will be required for this work.

The river flow model work is completed and the inundation maps for the entire jurisdictional reach are now available. The new inundation maps have been a very helpful tool in all of the engineering work required to support the District. In September, Tri Sage provided the model to a project developer in Verdi to support master planning efforts. Additionally, Tri Sage will share the model with the Bureau of Reclamation and One Truckee River to support their river improvement efforts.

Due to the large volume of consultation requests, Tri Sage revised the CTWCD policy to include a \$350 consultation fee for requests that come in that require determination and review of whether a 408 permit will be required. The Board approved this fee addition at the June meeting. Tri Sage will work with Mary Pat to get the updated permit fee policy posted to the CTWCD website.

Tri Sage's participation in the US Bureau of Reclamation's Truckee Basin Water Management Option Pilot (WMOP) Alternative Operational Scenarios Development workshops is complete for now. Tri Sage will share the CTWCD river model with the BoR to support their continued efforts.

Tri Sage has nearly finalized the guidance document and supporting installation details to be distributed to the City of Reno and other agencies to aid in future erosion control projects which may help to deter new encroachments.

Tri Sage is nearly complete with the draft grant agreement that could accompany the current grant process to provide more concrete dates and requirements to fulfill the grant. As discussed at a previous Board meeting, the draft agreement will be sent to Todd and Ernie for their review.

The model updates in the area of the kayak park indicate that any sediments in the flow channel at this location further reduce the channel capacity and are likely to over-top the banks/walls along Island Avenue. This finding will soon be shared with the City of Reno as a maintenance criteria for the kayak park.

The transition of the Tri Sage Team District lead from Lori Williams to Kayla Dowty is complete. The inspection and reporting work and much District information has been shared through the inspection and reporting process. Kayla continues to call Lori on an as needed basis when questions come in that require historical reference.

The section that pertained to the USACE April 2013 Inspection report has been eliminated from this report; and it is recommend the District continue to pursue improvements and correction of items noted in that last inspection report. The District has addressed or is currently addressing those items through its work.