



TRI SAGE CONSULTING
Monthly Report
Carson Truckee Water Conservancy District

April 6, 2021

MONTHLY ACTIVITIES- March 2021

- 1) Send letter to RTC re: CTWCD's comments and recommendations regarding the design of the Arlington Bridge Replacement.
- 2) Continue work on guidance document and installation details for rip rap placement for erosion repairs within the 14,000 cfs flood channel.
- 3) Continue contacting USACE on the status of review of the RTC Mixed-Use Path Permit; the technical reviews have been completed and Mike Fong is working on the memo for USACE signature.
- 4) Received notice from RTC that Kimberlee Leonard will be taking a new position at USACE. We will need to stay in close contact to find out who will fill her position. Tri Sage will continue to push for a quarterly meeting with the USACE to allow for regular communication, as well as updates on permit status.
- 5) Send follow up letter to the City of Reno regarding encroachments and assurances provided in the Martis Creek Agreement.
- 6) Met with the City of Reno regarding the unauthorized encroachment at 700 Riverside Drive. Drafted a letter on the City's behalf that could be sent to the property owner notifying them of the new channel mapping and possible flood risk.
- 7) Met with TRFMA and their modeling engineers to discuss status of their HEC-RAS modeling and future collaboration.
- 8) Met with Washoe County to introduce CTWCD and discuss encroachments and assurances provided in the Martis Creek Agreement.
- 9) Send letter to NRCS regarding District's request to be involved as a Project Stakeholder.
- 10) Draft CTWCD grant agreement.
- 11) Participate in US Bureau of Reclamation's Truckee Basin Water Management Option Pilot Alternative Operational Scenarios Development working groups.
- 12) Continue coordination with Resource Concepts Inc regarding CTWCD's participation in the development of the One Truckee River Vegetation Management and Restoration Planning Technical Working Group. Requested that the District be included in the project kick-off meeting and future participation can be discussed.
- 13) Review projects near river for Permit requirements; provide inundation maps for parcels. Projects this month included the construction of a single family residence in Verdi (APN 038-028-47) and a guest house at 4837 Idlewild Drive.

- 14) Coordinated a spring debris removal project in collaboration with the City of Reno to focus on beaver damaged trees that pose a direct risk to the river channel. Specific areas of work include Idlewild Park near the City of Reno maintenance office and the island at Wingfield Park.
- 15) Met with the Federal Water Master to better understand the Truckee River Operations and requirements under TROA.
- 16) Transitioning engineering continues as needed; Lori Williams will transition to a support role rather than the lead on new projects and inquiries going forward.

UPCOMING ACTIVITIES

- 1) Continue to collaborate with the City Forester for the removal of hazard trees within the 14,000cfs flood channel if budget dollars permit.
- 2) 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.
- 3) Continue working with project proponents for encroachment permit applications for RTC Mixed Use Path, USFWS fish passage projects, Arlington Bridge replacement project and other projects within the 14,000cfs flow channel.
- 4) 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.
- 5) Work with USACE to schedule a quarterly meeting with staff to discuss status of pending permits, as well as upcoming projects.
- 6) 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.
- 7) Request an updated copy of the City of Reno Flood Fighting Plan from the Public Works Department.
- 8) Follow up with TRFMA to find out when completed model will be made available to CTWCD by TRFMA engineers.
- 9) Work with the City of Reno to pursue a permanent encroachment permit for the West Street Plaza and any associated projects.
- 10) 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.
- 11) 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 worked with the City Forester to finalize the scope for several trees that are dead and leaning toward the river that both the City and CTWCD would like to remove. We requested quotes from CTWCD contractors, Noah's Park Tree Care and NV Environmental, for the priority work and discuss the collaboration with City crews for each location. Debris removal began at Wingfield Park on the island near the Cochran Ditch diversion on April 5th. The City crews fell the trees that had been decimated by beaver activity and the CTWCD contractor helped to remove the logs from the river channel. Work will continue in April for additional areas along Idlewild Drive and in Idlewild Park.

The RTC Mixed Use Path Project application for a 408 Encroachment Permit has been approved unanimously by the District Board and is still pending review by the USACE. Tri Sage continues to contact Kimberlee Leonard but has not received a response. The RTC Project Manager has been successful in making contact and received an update that the hydraulic review was complete and Kimberlee was working to package the technical information to be passed on to another department to draft the memo. It is imperative that RTC have the permit in hand no later than May 1st to meet their scheduling requirements to complete the project. This is now considered highest priority to help push this permit through.

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. GIS files of the 14,000cfs flow channel have been sent to both the City of Reno mapping and also to Washoe County mapping for use by project applicants in determining if project is in the flood channel and may require a 408 Permit. This month, Tri Sage worked to gain clarity on the dates of the aerial imagery that is included in the PDF inundation maps. We worked with JUB Engineers to add the photo date to each sheet of the set.

In March, Tri Sage identified a new apartment complex at 700 Riverside Drive that was within the 14,000 cfs inundation but had been approved by City of Reno without a 408 encroachment permit. Tri Sage contacted the City and requested clarity on whether the district mapping that was provided in October 2020 was considered during the planning evaluation and approval. Tri Sage met with City representatives via Zoom on March 18th to discuss the impetus for this discrepancy. In short, it was discovered that this property was not flagged for a 408 permit as it is considered to be outside of the flood channel and the current FEMA maps do not indicate significant flooding, which is inconsistent with the current CTWCD model. As follow up, Tri Sage requested that the City contact the property owner and let them know that their parcel would be impacted under a 100-year flood event. Additionally, this spurred a meeting with TRFMA to discuss model inconsistencies and collaboration.

In summary, as TRFMA works to finalize their model, the current CTWCD model should be used as the best tool for identifying parcels inundated at 14,000 cfs and thus requiring a 408 permit.

Tri Sage is currently participating in the US Bureau of Reclamation's Truckee Basin Water Management Option Pilot (WMOP) Alternative Operational Scenarios Development workshops. The workshops are being handled as a series of virtual meetings attended by a large group of river stakeholders. The purpose of the study is to evaluate opportunities and constraints to operating the reservoirs and river with more flexibility during flood events and using specific flood storage in reservoirs. Criteria for possible changes to the flood operations include no increase to flooding and no impacts to water rights and other limitations. Lori Williams has been attending these workshops on behalf of the District. The process has taken time to level set a common understanding of the baseline conditions including the current Water Control Manual criteria and other river agreements for all participants. Participants have brainstormed the changes to the system (dam modifications, gate remote operators, flood projects etc) as well as improvements in technology which have improved flood event forecasting, snow melt forecasting, flow models etc. which are available today and were not in 1985 when the current manual was published. Participants have brainstormed objectives and possible scenarios that should be evaluated for updating the Water Control Manual including ideas such as allowing more flexibility for dates at which flood space can begin to fill based on forecasts and such rather than rigid rule curves, possibly allowing flows greater than 6000cfs through Reno and other opportunities. Constraints and limitations have also been identified as well as the data that will be needed to evaluate options from both a qualitative and technical level. The study and any proposed changes to the Water Control Manual will likely take years to implement, but this process and study is a good start to future updates.

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.

Tri Sage sent the letter to RTC to formally document CTWCD's comments and recommendations regarding the design of the Arlington Bridge Replacement. Specifically, the letter includes the District's requested design features 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.

Tri Sage has had several discussions with various employees at the City of Reno regarding the 14,000cfs flood channel extents and projects to prevent camping in the river area. During a site meeting at Champion Park on December 4th, 2020, the river stretch between the Kietzke bridge and the Wells bridge was assessed for erosion repair. Much of those banks have significant erosion that should be repaired. Tri Sage is continuing work on a guidance document and supporting installation details to be distributed to the City of Reno and other agencies to aid in future erosion control projects. When this

document is complete, a follow up meeting will be scheduled with the City to highlight specific areas of concern.

Tri Sage and CTWCD Board Member, John Enloe, met with Washoe County on April 1st to introduce the District, as well as discuss channel encroachments and remind them of assurances that they committed to in the Martis Agreement. It was a very good discussion and allowed us to remind them that they have access to the current CTWCD mapping and ask that they continue to use it on projects near the river that come across their planning office.

Tri Sage continues to work on a draft grant agreement that could accompany the current grant process to provide more concrete dates and requirements to fulfill the grant.

The transition of the Tri Sage Team District lead from Lori Williams to Kayla Dowty is nearly complete. The inspection and reporting work and much District information has been shared through the inspection and reporting process. Transitioning will continue as requests and work comes in.

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.