



TRI SAGE CONSULTING
Monthly Report
Carson Truckee Water Conservancy District

May 11, 2020

MONTHLY ACTIVITIES- March - April 2020

- 1) Review of RTC Mixed Use Path Permit Application; conference call and follow up on scour analysis.
- 2) Call with USACE regarding review of RTC project and possible need for 214 Funding Agreement to get project reviewed; follow up with RTC.
- 3) Work with City Forester to remove dead trees from riverbank near Lake St Bridge; obtain contractor quotes and property owner authorization; monitor work.
- 4) Draft letter to Assistant City Manager Commending City Forester for collaboration efforts with the District.
- 5) Coordinate flow modeling work for site access and field collection of data on river structures; Flow model should be completed in the next month with structures modeled and sections calibrated
- 6) Confirm with USACE Regulatory No Permit Required for County Verdi Path.
- 7) Review projects for NVE Gas Pipeline crossing on Mayberry Pedestrian Bridge and discuss permitting application process and application details with NVE; email NV State Lands confirming the need for this project to apply for a permit.
- 8) Discuss 408 Permit requirements for fish passage projects at upstream diversion locations with USFWS engineer; discuss District Jurisdictional limits.
- 9) Review project for TMWA Washoe Flume repairs and issue a No Permit Required email to TMWA.
- 10) Draft a Proposal for Board review and input for a change to the fees and structure for Permit Reviews.
- 11) Transitioning engineering support has been put on hold during this COVID Period and Lori Williams is continuing to support District needs.

UPCOMING ACTIVITIES

- 1) Complete Semi-Annual Inspection once run-off is complete and river flows resume normal levels and draft report for USACE; scout trees and debris for fall removal project during inspection.

- 2) Continue working with project proponents for encroachment permit applications for RTC Mixed Use Path, USFWS fish passage projects, Arlington Bridge replacement review and other projects within the 14,000cfs flow channel.
- 3) Collaborate with the City Forester for the removal of beaver damaged trees within the 14,000cfs flood channel.
- 4) Continue transitioning Tri Sage Lead Engineer.
- 5) Continue evaluation of the deposits within the Kayak Park Project in Wingfield Park and establish a river capacity maintenance plan with the City based on this evaluation.
- 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 structure for 408 Permit Review if approved by the Board.
- 7) Draft and mail letters to homeowners along Idlewild Drive notifying them of encroachment requirements and limitations.
- 8) Discuss 2-D Model updates with TRFMA and opportunity for CTWCD to use this model update; when completed model will be made available to CTWCD by TRFMA.
- 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) Run 14,000cfs steady state HEC-RAS flow model to establish water surface elevations along key river locations to evaluate issues; complete sections upstream and downstream of downtown and produce inundation map layer for addition to County maps.
- 12) Continued coordination with City of Reno for 1) Flood Response evaluation and incorporation of Interim Risk Reduction Measures into their Flood Response Plan, and 2) Flap-gate Installation Phase 2 needs assessment and installation project.
- 13) Finalize the Equipment Access/Entry Point Documentation and Mapping for the District jurisdiction;

SUMMARY REPORT

Tri Sage continued with Debris and Tree Removal project work within the budget previously approved by the Board and has been coordinating the removal of dead trees from the riverbank. Tri Sage worked with the City of Reno forester to prioritize trees for removal and selected four trees along the path and bank downstream of the Lake St Bridge by the District's contractor. These trees were all dead and have been dropping large branches into the river flood channel over the past several years which have been removed by prior debris project work. The City was interested in eliminating the risk to pedestrians using the path and the District was interested in eliminating the need to remove debris annually and to

eliminate the sources once and for all. The District removed four trees and the City removed an additional two trees as well as dead branches on several trees along this bank. This collaboration with the City has been successful in eliminating many dead and eroded trees which were likely to end up in the river. The District sent a letter to the City commending the efforts of the City Forester Matt Basile to work with the District.

The RTC Mixed Use Path Project application for a 408 Encroachment Permit has been received and reviewed. A conference call was held with the project team to discuss the application and get answers to several questions and based on this call the RTC team issued a supplement to the application. The subsequent review of the scour analysis for this project has revealed some inconsistencies in the application and drawings so a formal request for information is being prepared by the District's engineer. Unfortunately, the transmittal of the application to the USACE Flood branch for review and authorization occurred at the time when the USACE had just discontinued work at their office. Through a series of emails and conference calls and transmittals, Tri Sage was able to get the documents into the hands of the USACE on April 6th; Tri Sage is now requesting 30day confirmation of completeness as required under the USACE policies. During this project transmission challenge, the USACE suggested that the project applicant may want to enter into a 214 Funding Agreement for the PAID review of the project. The USACE project manager who works with the District believes that their budget dollars for 408 Application reviews will be cut this summer and project reviews may be curtailed; she suggested that entering a funding agreement would allow for paid review should reviews be curtailed. This project for the mixed-use path is still under review by the District's engineer and waiting updated information.

Much work has been completed on the flow model development upstream of Booth Bridge and this project is on schedule for completion prior to the end of the fiscal year. The modeling engineer has created hundreds of cross sections for the new sections of river model. Field reconnaissance has been completed to acquire measurements of river structures and these major structures have been input and incorporated into the new flow model. Field investigations have also been completed to collect data on channel roughness factors for model calibrations and verification of other factors to be incorporated into the flow model at various locations. The new flow model for the upstream reaches is on track for completion by the end of May as originally planned. The District plans to make the inundation boundaries and elevations from this model available to the County and City for integration into their GIS mapping layers for timely determination of when a 408 Permit is required. In addition, this upstream modeling effort has already paid off for the evaluation of projects adjacent to the river and the determination of whether a 408 Permit is required for the work. In the future, we are expecting applications for several fish bypass projects at diversion structures and this model will allow the designers of those fish projects to have established pre- project flow models on which to base designs and make applications. The project will be booked as a capital asset for the District and we expect the authorized budget, including a portion approved through the budget augmentation, to be spent prior to fiscal year end.

Tri Sage has responded to several project inquiries from a variety of sources to evaluate whether a 408 Permit will be required for the project. USACE Regulatory sent a request for the Washoe County Verdi Path Project and this project as proactively planned by the County to stay above the 14,000cfs flow channel does NOT require a Permit. State Lands forwarded a project for a proposed NV Energy Gas pipeline proposed to cross the river on the Mayberry Walking bridge; this crossing project as well as the 408 permitting process was discussed with the applicant and NV Energy is looking for a routing alternative to this crossing as a 408 Permit is required for such a crossing. TMWA has submitted plans to rebuild a failed flume near Boomtown and this project was determined to be outside the 14,000cfs flood channel so no 408 Permit is required for this work. Tri Sage also discussed jurisdiction and the need for 408 Permits with the engineer for several fish bypass projects that are expected to be pursued over the next few years. All of these projects relied on the new flow model work that is underway for these upstream jurisdictional reaches.

As proposed by Tri Sage at a prior Board meeting, Tri Sage has drafted a new fee structure proposal for the Board's consideration. The basis of this proposal is to remove the District from becoming a collection agency for permit review fees and to generally have projects deposit sufficient funds upfront for the anticipated project review based complexity of the project. Unused funds would be returned to the applicant and additional fees would be invoiced to the applicant following the review. No review work will be started prior to receiving the review fees and the permit will not be issued until all fees, including any costs to the District for obtaining payment, are paid in full. This proposal also suggests an increase in the hourly review rate which is more aligned with current costs; this hourly rate should be reviewed annually to insure it adequately covers engineering rates. This proposal has been provided separately for review and discussion by the District Board under a specific agenda item.

In a letter sent to the Assistant City Manager of Reno several months back, the District requested the City respond to the letter with information regarding the regulations and ordinances to prevent encroachments in the flood channel as provided in the assurances the City offered to the USACE for the Martis Agreement. The District also requested information related to how these City regulations and ordinances are being implemented relative to maintaining a flood channel free of encroachments. To date the City has not responded to the District's request and Tri Sage will contact the temporary Assistant City Manager to get a status.

The evaluation of the Kayak Park sedimentation was put on hold while the modeling engineer focused on creating the new upstream flow model for the District. Once the flow model work is complete, the engineer will get back to evaluation of the sedimentation in the kayak park and how this impacts the flow channel capacity. Once the evaluation is complete the findings will be discussed with the City and a plan for maintenance of the Kayak Park can be established using this flow model information.

Superintendent Penrose is participating in the RTC Arlington Bridge Working Group to evaluate bridge replacement options. Superintendent Penrose can update the Board on any outcomes. The modeling engineer will provide the updated base model with the updated kayak park to the project engineer for this RTC Project.

The transition of the Tri Sage Team District lead from Lori Williams to Kayla Dowty has been put on hold temporarily due to the pandemic. Once more normal work flow can be pursued this transition will be resumed; at this time Williams continues to support all District work. .

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.