



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

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April 2, 2018

**MONTHLY ACTIVITIES- March**

- 1) Finalize draft permit for NDOT Verdi Bridge Scour to include USACE language and route for execution by the parties;
- 2) Prepare invoice and backup support for NDOT permit review costs of \$2762.50 and deliver check payment to newly opened District office.
- 3) Meet with USFWS regarding Permit Grantee and Steamboat Dam Project maintenance/liability responsibilities; USFWS cannot assume these responsibilities.
- 4) Provide USFWS with preliminary permit review observations, inconsistencies and model deficiencies for the Steamboat Dam Retrofit Project.
- 5) Inspect Kietzke for possible trees downed by beaver activity and inspect side channel to insure it is clean and flowing prior to elevated river flows.

**UPCOMING ACTIVITIES**

- 1) Inspect Truckee River channel following high flow event forecast for April 7<sup>th</sup> 2018 and beyond.
- 2) Follow-up with local agencies and project applicants on possible participation in the flow model updates for their impacted areas; bring findings back to District Board for discussion.
- 3) Communicate changes to the 408 Permit process with likely applicants including the City, and utilities; update on Categorical Permission review once in place.
- 4) Continue working with project proponents for encroachment permit applications for City of Reno Stoker Storm Drain addition, USFWS fish passage and NDOT Verdi Bridge Scour Projects.
- 5) Discuss 2-D Model updates with TRFMA and opportunity for CTWCD to use this model update; Model nearly completed and will be made available to CTWCD by TRFMA.
- 6) Work with the City of Reno to pursue a permanent encroachment permit for the West Street Plaza and any associated projects.
- 7) 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.

- 8) 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.
- 9) 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 needs assessment and project.
- 10) Finalize the Equipment Access/Entry Point Documentation and Mapping for the District Jurisdiction;

## **SUMMARY REPORT**

During this period, Tri Sage has not had any requests for information from DEM for the FEMA Grant Award CTWC A04; amount of the award is \$52,162.50.

The NDOT Bridge Scour Project permit has been updated with the language provided by USACE Flood. The final permit has been executed by NDOT and will be executed by Chairman Westergard this week and then will be mailed to USACE Sacramento for final authorization once the project has completed its review. An invoice with backup documentation was prepared for this NDOT permit review by the District and submitted to the Project; the invoice for \$2762.50 has been paid in full to the District. We are currently waiting on approval of this permit by USACE Flood.

Tri Sage met with the USFWS, Steamboat Canal, TMWA and Otis Bay to discuss responsibility for maintenance and operation of the new structure; USFWS cannot assume such ongoing responsibilities and thus cannot be the signatory to the CTWCD 408 Permit. A draft permit was provided to the parties so that they could see the responsibilities assumed by the Grantee under a typical 408 Permit. The ownership and responsibility for this project will have to clearly be defined in an agreement prior to the permit being issued such that the District will be ensured that the party to the agreement can and will take on the permit requirements. USFWS was also provided a detailed review of the permit application informing them of deficiencies in the model, the inconsistencies found in the referenced reports and possible design issues related to these matters. The project as proposed increases the water surface elevation of the 14,000cfs flow by approximately 1.5 ft which is 15 times the USACE allowable standard.

Tri Sage did a partial inspection of the river channel above and below the Kietzke Bridge based on the previously identified beaver activity in this reach. Flows were already up to approximately 2000cfs at the time of the inspection and it was noted that one large branchy tree has eroded from the bank and is now in the flow; however, until flows subside this tree will not be able to be removed from the channel or this removal may best be combined with our annual work in the fall. The City of Reno Parks department has removed several beaver damaged trees along the river bank in this section because the trees were damaged beyond repair; this is ideal because these removed trees no longer pose a threat to the flood channel. There was new beaver activity noted during this inspection; however, none close to

the river bank at this time. The side channel was open and flowing freely which was a concern that this activity in the area would down trees and plug this flow channel area. Two atmospheric rivers are forecast over the next week to ten days, so river flows can be expected to become elevated.

The City of Reno is continuing with their review of the Flap-Gate requirements in order to address the USACE inspection issue; the city has engaged an engineering firm to design the flap-gates for installation at several locations and will pursue permitting and installations in the coming year. This project may be placed on hold due to high river flows and funding limitations following the flood of 2017 and high flows are now expected to occur this spring further delaying this project.

The City is evaluating alternatives for the West Street Plaza interim risk reduction measures to be incorporated into the City's Flood Response Plan while the City works with a potential developer who is interested in the West Street Plaza. The City is working toward an application for a permanent encroachment permit for this project pending the outcome of work with the potential developer.

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.