



TRI SAGE CONSULTING
Monthly Report
Carson Truckee Water Conservancy District

February 2, 2018

MONTHLY ACTIVITIES- November, December, January

- 1) Prepared and submitted all documents to DEM for Grant Award for Project CTWCA04;
- 2) Responded to auditor inquires for three initial projects submitted to DEM for reimbursements; reimbursements totaling \$21,439.20 have been received by the District.
- 3) Review supplemental NDOT Verdi Bridge Scour application submitted studies and technical support for the project design;
- 4) Meet with NDOT Verdi Project Team regarding temporary diversion plan modifications and impacts to permitting; awaiting updated plans for temporary diversion for review prior to approval of 408 Permit.
- 5) Complete pre-flood season December river inspection for USACE Semi- Annual reporting as required by the Martis Agreement and identified additional debris removal needs.
- 6) Complete Semi-Annual Inspection Report and submit to USACE
- 7) Seek debris removal quotes from DF. Drumm, pursue authorization by the Board Chairman to perform work under existing contract; schedule and monitor debris removal work.
- 8) Prepare NDEP Working in Water Reports for Q4 and Draft Q1 Debris removal work report through 1/17/18; additional debris removed in Q1 will be added to this draft report.
- 9) Request update from USACE regarding City Stoker Storm Drain Permit timing & request review of draft permit language.
- 10) Review TMWA Verdi Pipeline and issue a No Permit Required email for this project which uses existing casing for river crossing.
- 11) Request TMWA facilities surveys to include details for river modeling needs to be made available to the District; approved by TMWA.
- 12) Completed effort to update the 14,000cfs flow model near the Spaghetti Bowl NDOT project reach; provided model to NDOT team for 408 Permitting.

UPCOMING ACTIVITIES

- 1) 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.
- 2) Communicate changes to the 408 Permit process with likely applicants including the City, and utilities; update on Categorical Permission review once in place.
- 3) 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.
- 4) 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.
- 5) Work with the City of Reno to pursue a permanent encroachment permit for the West Street Plaza and any associated projects.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) Finalize the Equipment Access/Entry Point Documentation and Mapping for the District Jurisdiction;

SUMMARY REPORT

During this period, Tri Sage has responded to numerous inquiries from DEM regarding District submittals for Projects and Grant Awards CTWCA01, CTWCA02, and CTWCA03. These three projects have been reimbursed to the District at 75% of the Grant Awards for a total reimbursement of \$21,439.20. Also, during this period, Tri Sage prepared and submitted on behalf of Ron Penrose District Superintendent all documentation for the final District Grant Award CTWCA04. This included a Project Change Request Form to reduce the grant amount due to the elimination of the Stagg Lane debris removal work and it also included a request for the reallocation of contractor bid savings to the project management category of the Grant. This change was approved by DEM via email; however proper FEMA forms documenting the request were required to be filed. All supporting documentation was submitted to DEM with the final Fourth Quarterly Financial Report and Quarterly Progress Report which requested reimbursement of 75% of the Grant Award as adjusted totaling \$52,162.50. Within the past weeks, DEM contacted the District requesting quarterly reports for the first three quarters; the District had previously been informed that these quarterly reports were to start the quarter following the Grant Award in late August. Quarterly forms were prepared and submitted. DEM is currently working to process the Project Change Request for extension of the performance period for this work into September; this request was originally submitted in July and later followed up with proper forms

requests in September. DEM is reportedly working methodically to process all project for this flood event and will continue to process or requests as they came in to DEM.

The NDOT Bridge Scour project application was reviewed and supplemental information provided has now been reviewed. The NDOT team provided a supplemental technical memo for support of the project with the USACE review based on the District's review and questions; This has been provided to the USACE. The NDOT Team is pursuing dewatering and temporary diversion concepts that are now different than the initial application; the District engineer attended a project team meeting to discuss options for dewatering. The District is waiting on this updated dewatering plan and information to review and, assuming it is acceptable, will recommend Board approval of the 408 Permit. NDOT also must resubmit this updated dewatering plan information to USFWS for review as part of their regulatory permit review. As of this writing no updated diversion plan has been submitted; if the information is provided timely, we will work to review in time for the February meeting and if not, approval will get pushed out to the March Meeting. According to USACE, this project is under review at this time.

The Semi-annual inspection was completed the first week of December by Tri Sage and Superintendent Penrose; Chairman Westergard was unable to attend this inspection. During the inspection, six areas were identified with debris that had the potential to enter the flow at elevated river levels. DF Drumm was contacted to perform this work under the existing agreement from the flood work earlier in 2017; this agreement specifically allowed for additional debris to be added to this work if mutually agreed upon. DF Drumm's superintendent Matt Setty was responsive to a request for quotes for removal of this debris and Chairman Westergard approved the work to remove \$8463.50 of debris. The work was scheduled and completed by Drumm's team as quoted. Tri Sage monitored the work and drafted the Q! NDEP Working in Waters Report for this work. Any additional work in the river during the first quarter will be added to this report prior to the submittal. The draft report has been provided to the Board as an attachment to the December Semi Annual Inspection Report drafted and submitted to the USACE.

TMWA is planning to install a pipeline across the river in Verdi to serve customers who facilities have failed; this project will use an existing casing beneath the river and all excavations will be outside of the estimated 14,000cfs flow channel. The plan was reviewed and a No Permit Required email was issued to for this project.

Work has been completed on the 14,000cfs model development for the Kietzke to Glendale section of the river that is needed for the "Spaghetti Bowl" project reviews. The modeling engineer built the model and has completed the work to integrate this section into the base model and to calibrate the new section based on known flows. TMWA has agreed to upgrade several surveys they plan to perform on hydroelectric and other river facilities to include elevation information that will be useful and necessary to the District in creating the flow models for these upstream reaches which are currently not modeled. Beyond these two items, the additional upstream modeling needs discussed at the July Board meeting have not been dealt with yet due to other more pressing needs with the District. At that meeting of the

Board, Tri Sage was directed to go out to the project proponents and impacted agencies and see if these parties are willing to contribute to the development of the flow model in areas that impact their jurisdictions. This will be done later this year when time permits.

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.

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.