



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

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March 31, 2014

**MONTHLY ACTIVITIES**

- 1) Follow up with USACE on status of Virginia Street Bridge encroachment authorization;
- 2) Coordinate continuing channel maintenance focused at the north side channel upstream of Kietzke Lane Bridge;
- 3) Reviewing TRFMA 14,000cfs flow model and confirming survey data; updating survey as necessary. Field verification of model inputs;
- 4) Provide modeling and review of inputs and outputs to validate model prior applying to inspection issues;

**UPCOMING ACTIVITIES**

- 1) Semi- Annual River inspection and review of debris removal work for 2014.
- 2) Virginia Street Bridge Project USACE authorization for encroachment Permit and issue permit to City of Reno;
- 3) Survey of shoaling areas for modeling assessments and HEC-RAS Modeling of shoal areas; evaluate shoaling deposits for impacts to flow capacity.
- 4) Run 14,000cfs steady state HEC-RAS flow model to establish water surface elevations along key river locations to evaluate inspection issues.
- 5) Continued coordination with USACE regarding 14,000cfs model outcomes and evaluation of channel walls in downtown Reno and appropriate application of SWIF process;
- 6) Continued coordination with City of Reno for 1) Flood Response evaluation and incorporation into their plan, 2) Flap-gate Installation needs and project, 3) Vegetation Variance for trees along channel (if necessary);
- 7) Draft Vegetation Variance Application for Trees in Vegetation Free Zone if applicable under SWIF;
- 8) Finalize the Equipment Access/Entry Point Documentation and Mapping for the District Jurisdiction;

**SUMMARY REPORT**

The engineer continued to work with the survey data provided by TRFMA and the model to validate the model to existing conditions and field verify the data inputs. The model has been run and the outputs in some sections appear to be inconsistent with conditions; so field verifications

of existing conditions have been completed. It is clear that most of the shoaling areas are well documented in the model surveys, so it is not expected that additional survey will be necessary at this point. The modeler is working to evaluate the apparent inconsistencies (the river leaving the banks in areas which are expected to handle 14,000cfs within the banks), and then will run the model. The model will be run to evaluate water surface elevations and evaluate the issues raised by the USACE during the inspection including flap gates, flood response application of plywood and shoaling and vegetation impacts on the flow channel. This information will also be relayed to the USACE to assist them in evaluating the status of the walls through downtown and the use of the SWIF process.

The USACE has reportedly completed review of the City of Reno Virginia Street Bridge Project and is currently routing its review for approvals through the Corps channels. CTWCD has approved this encroachment and is awaiting the authorization from the USACE as required by the Martis Creek Agreement.

### **RECOMMENDATION**

It is recommended that the Board of Directors continue to pursue the approved action plan to correct issue identified during the USACE April Project Inspection and previous inspection as expeditiously as possible. Pending the outcome of USACE determination regarding the status of the walls in downtown Reno, some inspection issues may see modified requirements.