



FIVE PEAKS CONSULTING
Monthly Engineering Report
Carson Truckee Water Conservancy District

September 11, 2023

MONTHLY ACTIVITIES- August 2023

- 1) Completed 2023 debris removal scoping. Scopes will be shared with contractors in the next week so work can commence ahead of flood season.
- 2) Finalizing the bi-annual USACE inspection – due to high river flows, this was delayed to late July. This will be sent to USACE in the next week.
- 3) Received USACE Truckee River field inspection report on June 27th. Provided CTWCD comments on the “Unacceptable” ratings which are generally associated with unpermitted alterations and working through list of action items to address each. This action item list will be provided to CTWCD Board when complete.
- 4) Worked with project proponent to finalize response to the “Incomplete Notice” from USACE in regards to RTC Arlington Bridges Replacement 408 application. Submitted to USACE on September 11th.
- 5) Attended Carson River tour on August 31st to see streambank damage due to heavy runoff this spring.
- 6) Completed close out inspection of NDOT SBX project. The path bedding was not completed per plans and is beginning to slough off to the river. Our team has followed up with NDOT and Ames and noted that issue needs to be corrected prior to flood season.
- 7) Sent the draft consent letter to Vero Fiber to complete maintenance to Sutro bridge conduit attachments. Waiting on Vero to execute.
- 8) Participated in monthly status calls with USACE on August 15th to discuss 408 review progress for City of Reno Booth Street Siphon project and RTC Arlington Bridges project and geotechnical borings. Provided permit review updates to project proponents.
- 9) Met with project proponent/consultant on August 25th to discuss encroachment located at 25 White Fir Drive. Received draft permit application and hydraulic model on September 8th.
- 10) Corresponded with project proponents for Sierra Street and Keystone Avenue bridge replacement projects. Attended Keystone project design team meeting on August 17th at RTC offices.
- 11) Corresponded with project proponent/consultant on upcoming Verdi bridge replacements. Provided upstream HEC-RAS model and 14,000 inundation shapefiles to determine permitting requirements.

- 12) Followed up with City of Reno on the sale of the property at 0 Riverside Drive to a private investor for multi family development. Five Peaks will continue to follow up with developer, as well as City of Reno real estate team.
- 13) Followed up with Washoe County regarding status of removal of exposed angle iron at Ambrose Dam. Waiting to draft letter to Charles Albright regarding the Board's current position on the project and obligations of the District until we connect with Washoe County.
- 14) Met with City of Reno (Trina Magoon and John Flansberg) on June 29th regarding Riverside Drive inundation, West Street Plaza and kayak park sediment. Received proposal from JUB to complete Riverside Drive conceptual design – attached to engineers report.
- 15) Review projects near river for Permit requirements; provide inundation maps for parcels, as required. This included discussions with NDOT regarding upcoming Verdi bridges work, as well as other various projects/parcels adjacent to the flood channel.

UPCOMING ACTIVITIES

- 1) Follow up with City of Reno on the meeting that was held on June 29th to confirm that West Street Plaza is included in their Flood Response Action Plan (FRAP), continue to discuss next steps for Riverside Drive inundation, and share modeling evaluation of the deposits within the kayak park to establish a river capacity maintenance plan with the City based on this evaluation.
- 2) Reach out to Boca/Stampede Bureau of Reclamation contact to schedule a CTWCD Board field trip for the spring.
- 3) Follow up on USACE Truckee River field inspection report. Prepare action plan for maintenance items that have been requested.
- 4) Continue to participate in monthly check in meeting with USACE. These are scheduled for the third Tuesday of every month.
- 5) Draft letter to Waste Management regarding their responsibility to keep the river bank that they own to OHWM secure and clear of encroachments and hazard trees.
- 6) Finalize work on guidance document and installation details for rip rap placement for erosion repairs within the 14,000 cfs flood channel. Discuss preliminary erosion guidelines with City of Reno and SWCA to possibly incorporate along with their vegetation management effort.
- 7) Continue to collaborate with the City Forester for the removal of hazard trees within the 14,000cfs flood channel if budget dollars permit.
- 8) Continue to collaborate with TRFMA and their modeling engineers to discuss status of their HEC-RAS modeling and future coordination.
- 9) Continue working with project proponents for encroachment permit applications for 25 White Fir Drive, One Truckee River Brodhead Park, USFWS fish passage projects, NDOT I-80 Verdi Bridge Replacement Project, Keystone/Booth/Sierra Bridges replacement project and other projects within the 14,000cfs flow channel.
- 10) 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.

- 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

Our team has completed scoping the Fall 2023 Debris Removal Project so we can get contractors started early. Scopes of work will be distributed in the next week so contracts can be finalized.

Five Peaks attended a tour of the Carson River on August 31st to inspect streambank damage caused by heavy runoff this spring. We visited three locations in the Genoa area that experienced significant erosion that is impacting private property. There was a very good turnout with many agencies present including USACE Regulatory, NDEP, and many others.

Five Peaks has corresponded with project proponents for two new 408 applications including a private development at 25 White Fir Drive and NDOT bridge replacements in Verdi. We expect to include the 25 White Fir Drive application on the October agenda for approval.

Jeff Weagel from JUB shared a News 4 article indicating that the City of Reno Council recently voted to sell a City owned parcel at 0 Riverside Drive for discount to 'attainable' housing developer. Due to flooding of this property at flows around 8,500cfs (see inundation figure below), CTWCD had previously been assured that the City would not sell this parcel. Five Peaks followed up with Trina Magoon and was told that the floodway boundaries and floodplain elevations along with a 50-foot offset easement from top of bank were provided with the RFP and communicated through the process to the buyer and to Council. Preliminary plans indicate that the proposed building will not only be set back behind the CTWCD boundary, but will also have an open first floor for parking and support structure. Board should discuss next steps.



Five Peaks reached out to RTC regarding status of the Truckee River Path project that was permitted as project CTWCD 20-01 as construction was intended to be complete in December 2022. The Truckee River Path project was unable to be advanced as part of the NDOT SBX Project because necessary ROW/easements were not transferred by RSIC as originally committed such that a continuous pathway was not able to be provided. The RSIC is now internally working to determine if/how to advance necessary ROW/easements to facilitate advancement of the project – which would include final design and construction. The formal process of how RSIC advances the project is unclear, RTC is willing to provide project management, however, they are not able to fund final design or construction. Follow up will continue to see if this project is able to move forward.

RTC and Jacobs continue to progress environmental and engineering design for the Arlington Avenue Bridges Replacement Project. RTC would like to start construction in 2024. CTWCD provided comments and recommendations regarding the design of the Arlington Bridge Replacement, which was sent via letter to RTC in March 2021, 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. At this time, all of these requests are being incorporated into the design. FHWA is the lead federal agency so they are completing the overall NEPA decision for the project which is expected to be a Categorical Exclusion. A pre-application meeting for the overall Bridges Replacement project was held with USACE, as well as many other participating agencies, on January 26th. The hydraulic modeling shows that the bridge deck is not inundated at 14,000cfs which is important for USACE. This may still require acknowledgment in a letter from City of Reno, NDOT and/or FHWA regarding risk to the bridges at higher flow events. Other benefits of the project include removal of the sediment deposits in the kayak park, as well as a maintenance agreement with the City of Reno to keep the park free of future deposition. Additionally, the project includes an equipment access

ramp from Island Avenue to support future maintenance access to the kayak park. The application for the bridges replacement was received February 24th to support inclusion on the March Board agenda. Review and comments have been provided to RTC/Jacobs by Five Peaks and the technical modeling reviewers. The CTWCD Board voted to approve the project at the March 2023 meeting. Five Peaks and JUB completed technical review of the package and submitted to USACE on April 26, 2023. We received an Incomplete Letter from USACE on May 25th with some questions and requests for additional information. This was immediately forwarded to the project proponent. A monthly status call with USACE was held on May 26th and one specific comment that may impact the overall permit review is that USACE is unsure that they will be able to adopt FHWA's categorical exemption. There has since a coordination call with FHWA and USACE to confirm that the CatEx fully covers the project description. Five Peaks completed a site walk with the Jacobs engineer on June 2nd to review the USACE Incomplete Letter comments and begin developing responses. The response to the Incomplete Letter was sent to USACE on July 10th. We received additional comments from USACE regarding the hydraulics (localized increase of WSEL greater than 0.1ft) on August 7th and full response from project proponent was provided on September 11th. Five Peaks will continue to have a monthly check-in call with the project proponent, as well as USACE to meet on overall project status. USACE is confident that a permission could be issued to support late 2024 construction.

RTC also submitted a 408 application for the geotechnical exploration that they need to complete to support final bridge design. This was submitted to USACE as application CTWCD 23-01. USACE provided an Incomplete Letter on February 17th. This included request for clarification on jurisdiction of the bridge, as well as an update on the status of NEPA permitting. RTC/Jacobs prepared a response and this was directed back to USACE on February 22nd. At this time, the USACE technical reviews will progress. RTC received their Section 7 concurrence letter from USFWS on April 18th and a programmatic categorical exemption from FHWA/NDOT on April 26th. USACE confirmed on June 1st that they had everything they needed to proceed with the 408 permit and anticipated a final decision to be issued in July. USACE permission was received on July 21st and the permit has been fully executed as of August 7th! Borings are scheduled for October.

CTWCD met with Trina Magoon and John Flansberg from the City of Reno at City Hall on June 29th. Kayla Dowty, Lori Williams and Todd Westergard attended. Overall, it was a great meeting with positive communication. Meeting notes are as follows:

- Kayak Park - there was discussion of the maintenance agreement governing the removal of sediment at the whitewater park.
 - We clarified that the maintenance agreement exists in the form of the Martis Agreement.
 - John Flansberg confirmed with Travis Truhill (City of Reno) that the Martis Agreement would be useful in designating additional funding and a separate maintenance agreement would not be needed.
- Riverside Drive – there was discussion regarding USACE's interpretation of Riverside Drive: that although the original USACE Project did not contain the 14,000cfs flow at Riverside, it is

the now the responsibility of CTWCD & City of Reno to maintain flow in the channel/prevent flooding at the design capacity.

- We noted that CTWCD's ability to directly construct improvements necessary to mitigate/prevent flooding in that location are limited, and that role must be largely filled by City of Reno.
- CTWCD and others have documentation of the original design deficiencies in the Riverside vicinity. Updated models show several breakouts at approx. 11,000cfs. TRFMA recognizes the need for improvements in this location and has included it in their published improvement plans.
- The bridge replacement projects being undertaken by RTC will influence and be influenced by flood mitigation improvements at Riverside. We may be able to expand the Keystone bridge replacement to mitigate the flood risk within the project area.
- J-U-B has prepared a proposal to CTWCD to design a floodwall along Riverside Drive between the Keystone Avenue Bridge and the Arlington Avenue Bridge. The design flow rate to mitigate is 14,000cfs.
- West Street Plaza – there was discussion regarding improvements at West Street Plaza result in inundation of properties adjacent. There is effectively a hole in the flood wall.
 - These improvements were not permitted. USACE confirmed that a 408 encroachment application would be required to get the alteration permitted.
 - City of Reno should include emergency provisions for containing flow at this location during flood events (Plywood in openings). These provisions should be included in their Flood Response Emergency Plan (FRAP). City of Reno to confirm – CTWCD to follow up.

RTC held kick-off meetings for the Sierra Street and Keystone Avenue bridge replacements. The Keystone kick-off was held on June 29th. Five Peaks was unable to attend as it was the same day/time as our meeting with the City of Reno. Our team attended the first design committee meeting on August 7th and submitted preliminary requirements for CTWCD permit. The Sierra kick-off was held on July 10th. Five Peaks was unable to attend due to pre-planned vacation. Our team attended a brief meeting to discuss freeboard requirements and will continue to attend the design committee meetings.

Farr West Engineering is completing the design for the Booth Street Sewer Siphon project on behalf of the City of Reno. This project will require a bore under the river. A 408 Encroachment Permit will be required as the requirements apply to any projects going over, under or thru the 14,000 CFS flood channel. Tri Sage provided the current 408 application, as well as the HEC-RAS model for that section of the river, and let them know they could expect an 18 month permitting window. A siphon project was previously completed by Farr West and CoR near Kuenzli and the City Maintenance Yard. Some hurdles of that project were addressing the scour, as well as the depth of bore. A pre-application meeting with USACE was held on March 28th. This included the project proponents, as well as the Flood branch of the USACE to ensure all NEPA requirements are being met and hopefully streamline

the environmental review of the permit. There is no federal funding for this project and no disturbance below OHWM so USACE Flood will be the lead federal agency for the project. In general, the Farr West team was very well prepared for the call and was able to respond to all of the questions from USACE. They also included their biological and cultural sub-consultants which was very helpful for the discussion. USACE urged Farr West/City of Reno to use the HDD Categorical Permission checklist and include with their application. Farr West submitted a complete application on May 20th. It was a very thorough application and the technical review was simple to complete. The Board voted to approve this permit and submit to USACE for review at the June Board meeting. A Statement of No Objection was drafted and the permit was uploaded to the FTP file share on June 30, 2022. The 408 permissions group provided an initial review of the application and comments/requests for additional information. Farr West provided response to USACE's comments and this information has been sent to USACE to support continued permit review. USACE provided comments for the Biological Assessment on May 26th and the proponent provided revisions on June 27th. The biggest concern at this point is the cultural review as there is some confusion regarding the historical significance of the rock wall in Idlewild Park. USACE, SHPO and City of Reno are currently coordinating on a solution. USACE is anticipating a final decision to be issued in late 2023.

An application for conduit attachment to the Sutro Bridge was received from Vero Fiber. Five Peaks confirmed with the City that there is space available to reconfigure the bridge attachments. A consent letter has been drafted, similar to the one sent to Uprise, and has been sent to the project proponent for review and comment. We have received the \$1,000 check to cover the permit fees and are waiting for Vero to execute the letter.

Washoe County reached out to CTWCD in early June 2021 because they were contacted by the recreational paddling community about an abandoned diversion structure near Ambrose Park in west Reno. The County is concerned that the structure poses a risk for rafters and other river recreationists. They asked whether the structure could be removed and if it would require a 408 Encroachment Permit. Tri Sage contacted the Federal Water Master's office to find out the history of the structure, as well as ownership. The Water Master said that the old diversion structure was part of the old South Side Canal and that all of the water rights in the South Side Canal were transferred to the Lake Ditch (state permit 11489, certificate 4827) in 1948. Since there aren't any valid water rights served by the structure and the ditch has long been abandoned, no one "owns" the structure. Additionally, Tri Sage researched the Martis Creek Agreement and it seems that the diversion structure was likely "grandfathered" in. A field meet was held on August 18th to further discuss the project and the permit impacts. Washoe County is looking for funding opportunities to complete the project. Tri Sage followed up via phone call to USACE and confirmed that a 408 permit would not be required for removal of the structure. This information was passed on to the County. Tri Sage received an update from the County in early January 2022 stating that the County does not have capacity to move forward on this project this year. The project would have to be managed by their Capital Improvements Project team because it would be over \$100k and there is not enough staff to include this project in this year's improvements. There is support

from upper management, but it is not as high of a priority as other projects. Washoe County Parks did add the Ambrose dam removal project to the 5-year CIP list and hope to circle back next year. The Board directed at the February 2022 meeting to have legal reach out to State Lands regarding ownership of the structure. This letter was finalized and mailed to NVDSL on March 31st. Tri Sage followed up via email on May 12th and received a response that the NVDSL administrator was preparing a reply. After the June Board meeting, Tri Sage followed up with a voicemail to Ellery Stahler, NVDSL Deputy Administrator. A phone call with Ms. Stahler and Charles Donohue, NVDSL Administrator, was held on June 28th. NVDSL indicated that they did not have any additional information beyond what CTWCD had provided on the history and ownership of the structure. They suggested that the agencies work together to address the concerns from the paddling community as there are other river users that would like to see the structure remain. Discussion was held in regards to improving the safety of the structure, specifically removal of the exposed rebar. A phone call with Dave Solaro indicated that the rebar would likely be completed in October when river flows are low. Tri Sage followed up with Dave Solaro and Alexis Hill on August 30th and again on October 10th to confirm the work has been scheduled. Dave responded that his crews visited the structure and did not see any exposed rebar. A site visit on December 7th showed heavy angle exposed. The Board direction at the November meeting was for Tri Sage to schedule a meeting with Ron Penrose and Dave Solaro – this call occurred on February 6th. Washoe County had planned to do this work in late November but winter storms hit and river flows haven't come back down – this may need to wait until late summer. They plan to remove all exposed metal from the structure. Washoe County stressed that a full public input process would need to take place for a removal scope could be developed. And the scope (whether full, partial or no removal) would be very important to securing funding. Kayla followed up with Charles Albright via phone call the next day to provide him with a status update on the overall project. As Washoe County is handling the immediate safety concern and USACE 408 will not require a permit associated with this structure, no further action is required of CTWCD. Kayla will prepare a letter to Mr. Albright to address the District's position and send to Leo for review. Five Peaks continues to follow up with Washoe County to confirm whether the exposed angle iron has been removed. Based on our latest inspection in late July, the exposed metal is still present.

Tri Sage accompanied USACE on a field inspection of the Truckee River during the week of June 13th. Federal projects are supposed to be completed every 5 years, but the last inspection of the Truckee River was in 2013. The inspection kicked off on Monday, June 13th at Idlewild Park continuing east to the East 2nd Street bridge. The inspection continued on Tuesday, June 14th at Glendale Bridge to John Champion Park to inspect east end of the CTWCD jurisdiction. USACE will provide an inspection report indicating any areas that require maintenance. This has not yet been received. Some items expected to be noted are a larger push of the City of Reno Flap Gate program, as well as some minor channel wall maintenance in areas of degradation. A draft report was received via email on June 27th. Five Peaks has provided comments to USACE. We are also working on developing an action/follow up plan for the “unacceptable” ratings and maintenance items.

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. Five Peaks has recently shared the model with several project proponents including 6925 Eagle Creek Court private residence, Stantec (Sutro Fiber Project), Terraphase Engineering (25 White Fir Development), RTC (Keystone & Booth Bridge Replacements), Jacobs (Arlington Bridges Replacement), Farr West (Booth Street Siphon), Atkins (Glendale Portage Path) and SWCA (Truckee River Re-Vegetation Projects). We will continue to work with TRFMA on coordination of our HEC-RAS models. JUB recently received a version of the TRFMA model that was used to develop the FEMA Physical Map Revision (PMR).

Tri Sage has nearly finalized the guidance document and supporting installation details to be distributed to the City of Reno and other agencies to aid in future erosion control projects which may help to deter new encroachments.

The section that pertained to the USACE April 2013 Inspection report has been eliminated from this report; we expect that this section will be added in again to address maintenance items in the USACE June 2022 inspection report.