



**FIVE PEAKS CONSULTING**  
**Monthly Engineering Report**  
**Carson Truckee Water Conservancy District**

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March 10, 2025

**MONTHLY ACTIVITIES- February 2025**

- 1) The 2024/2025 debris removal is complete. All activity is documented in the attached photo narrative.
- 2) Completing the bi-annual river inspection report. This will be sent to USACE in March, along with the debris removal report.
- 3) USACE has issued their Letter of Permission for the Arlington Bridges Replacement. The CTWCD permit and the final invoice for funds spent beyond the initial permit fee has been provided to RTC. The final invoice totaled approximately \$35,000.
- 4) TRFMA voted at the February 14<sup>th</sup> Board meeting to move forward with Inter-Local Agreement between TRFMA and City of Reno to fund the full project. We received a draft agreement last week that Lucas and I are reviewing. We are currently planning a Fall 2025 start for the berm portion downstream of Booth Street as this falls under maintenance activity. We plan to begin environmental and cultural surveys in the spring to support 408 permitting for the portion downstream of Booth Street.
- 5) Met with USACE on February 18<sup>th</sup> to review permit status updates. Followed up with project proponents.
- 6) Corresponded with USACE regarding the status of the White Fir project. USACE noted that the prior hydraulics issues have been resolved. Cultural impact letters were sent out in February which started 30-day clock for concurrence. USACE is still estimating that a final decision will be issued in April.
- 7) Corresponded with project proponents for Sierra Street bridge replacement project and continued to participate in design review meetings. The design team is planning on 408 submittal in October 2025.
- 8) Corresponded with project proponents for Keystone Avenue bridge replacement project and participated in design review meetings. USACE will require a Drilling & Invasive Program Plan (DIPP) in this area which could impact review times. We submitted the application package to USACE on February 7<sup>th</sup>. We received Notice of Incomplete Submittal last week and are working to address.
- 9) Received application from NV Energy for two power line replacements in Verdi. CTWCD Board approved at the October meeting. Held a brief pre-application meeting during monthly call with USACE. Will not require formal pre-app or funding agreement. Re-submitted to

USACE on January 13<sup>th</sup>. We received Notice of Incomplete Submittal and have addressed all comments. Awaiting further direction from USACE.

- 10) Received application from Trout Unlimited for a fish weir project to support habitat for LCTs. Pre-application meeting with USACE was held on February 27<sup>th</sup>. Working with project proponent to address comments and prepare submittal package to USACE.
- 11) Received consultation request from Nevada Department of State Lands for a new AT&T fiber placed across the Truckee River to support TMWA's Fleish Power Plant. After further discussion with AT&T, this has been deemed maintenance and no permit will be required.
- 12) Received additional consultation request from NVDSL and OTR for projects located outside of CTWCD jurisdiction.
- 13) Received USACE Truckee River field inspection report on June 27, 2023. We received follow up from NV Energy that 1 of the 3 identified powerline crossings pre-dated the Martis Creek agreement. Other 2 crossings will require as-built 408 applications. We had a meeting with the City of Reno on March 15<sup>th</sup> to discuss additional flap gates required. Continuing to follow up with USACE inspection team.

## **UPCOMING ACTIVITIES**

- 1) Continue to respond to questions and provide support for Trout Unlimited fish passage project.
- 2) Distribute bi-annual river inspection report and 2024/2025 debris removal report.
- 3) Schedule meeting with Congressman Amodei's office to request 2025 meeting to discuss current CTWCD priorities.
- 4) Meet with One Truckee River to review 90% plans for Brodhead Park Restoration and provide guidance on whether a 408 permit will be required. Also provide guidance on their Urban Tree Workforce Program to ensure work does not require permitting.
- 5) Review and provide input on the TRFMA/City of Reno Inter-Local Agreement to support the Riverside Drive project.
- 6) Work with JUB to complete the 30% design for the Riverside Drive 14,000 cfs alternative and prepare for upcoming cultural and biological studies.
- 7) Follow up with Jones Street Condos on unauthorized construction within 14,000 cfs flood channel.
- 8) Follow up with City of Reno on the meeting that was held on June 29<sup>th</sup> to confirm that West Street Plaza is included in their Flood Response Action Plan (FRAP) and pursue a final encroachment permit.
- 9) Continue to participate in monthly check in meeting with USACE. These are scheduled for the third Tuesday of every month.
- 10) Continue to collaborate with the City Forester for the removal of hazard trees within the 14,000cfs flood channel if budget dollars permit.
- 11) Continue working with project proponents for encroachment permit applications for One Truckee River Brodhead Park, USFWS fish passage projects, NDOT I-80 Verdi Bridge

Replacement Project, Keystone/Sierra Bridges replacement project, NV Energy powerline rebuilds, TMWA maintenance projects and other projects within the 14,000cfs flow channel.

- 12) 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.
- 13) 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**

The 408 application for 25 White Fir was finalized and sent to USACE on January 23<sup>rd</sup>, along with CTWCD's Statement of No Objection. We received initial comments from USACE on February 21<sup>st</sup>. Comments included requested additions to the Section 106 cultural report, real estate verification and request for categorical permission checklist. These comments were provided to the project proponent to address. The project proponent provided a complete response and the updated files were sent to USACE on May 8<sup>th</sup>. We received additional environmental and cultural comments on June 14<sup>th</sup> and provided a response on June 24<sup>th</sup>. We had a long discussion with USACE on September 17<sup>th</sup> and explained why we didn't think a 2D model should be required for this review. USACE indicated that they are seeing WSE increases beyond the threshold which is in conflict to what our modeling shows. USACE requested a blockage analysis, as well as a detailed table illustrating WSELs in existing and proposed models. USACE noted that this satisfied the hydraulic concerns and they are now working to close out the cultural consultation. We met USACE, Reno Sparks Indian Colony and the project proponent on February 10<sup>th</sup> to review tribal concerns. We clarified scope and area of potential effect – this was very helpful and RSIC is now comfortable with the project. We expect the Section 106 consultation to be completed in March and the final permission to be issued in April.

RTC and Jacobs has completed the design for the Arlington Avenue Bridges Replacement Project. RTC is hoping to receive USACE permission for the project in 2024 to allow construction to start in early 2025. FHWA is the lead federal agency so they are completing the overall NEPA decision and have issued a Categorical Exclusion. The hydraulic modeling shows that the bridge deck is not inundated at 14,000cfs which is important for USACE. 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 was originally submitted to USACE in March 2023. There were many rounds of comments from USACE, mostly involving the need for a 100% submittal that included the kayak park design. This was originally

scheduled to be complete in October 2023, but was not received until March 19<sup>th</sup>, 2024. There were extensive modeling comments and these were discussed with RTC and Jacobs on April 1<sup>st</sup>. We received a revised submittal on April 11<sup>th</sup>. The team met again on April 25<sup>th</sup> to review modeling concerns and plan set inconsistencies in more detail with a follow up meeting between the hydraulic modelers. We received a final submittal on May 6<sup>th</sup> and JUB subsequently approved the set to be submitted to USACE for review. The CTWCD Board agreed to resubmit the application to USACE to continue their review of the project. This was packaged and sent to USACE on June 10, 2024. At the request of RTC, USACE received emails from Congressman Amodei's and Senator Cortez Masto's offices regarding USACE's delays and impacts on the overall project. We have emailed RTC asking for a meeting to discuss why congressional support was requested. The 401 WQC was received in October and USACE issued their Notice of Complete Submittal. We received the USACE Letter of Permission on January 21<sup>st</sup>. We have prepared the final permit, as well as a final invoice to cover outstanding permitting fees. The project proponent has requested a variance to access the flood channel prior to July 1 – this will be presented at the March Board meeting.

The CTWCD board voted at the March 2024 meeting to approve funding a Riverside Drive alternatives analysis by JUB. We received the draft report on May 10<sup>th</sup> that included conceptual designs for all three alternatives, as well as cost estimates. The report was shared with City of Reno and TRFMA on July 2<sup>nd</sup>. On July 16<sup>th</sup>, we had a preliminary discussion with USACE. They consider Alternative B to be a substantial alteration to the federal flood project that could entail major permitting effort. After further discussion with CTWCD Board, City of Reno and TRFMA, we all agree that Alternative A (14,000cfs) is more suitable for everyone's needs as the majority of this alternative would fall under maintenance activity. We did a site walk with JUB and City of Reno on September 19<sup>th</sup> to better refine the scope. JUB has prepared a 30% scope of work and cost estimate for the downstream maintenance section for the Board's consideration. We presented the project scope and cost estimate to the TRFMA Board at their December meeting. TRFMA approved an item on their February 14<sup>th</sup> agenda to move forward with an Inter-Local Agreement to fund the Riverside Drive project per the cost estimates attached at the end of this report. The following roles/responsibilities have been proposed:

1. CTWCD – Fund and manage final design of 14,000 cfs containment. This could be via floodwall, revisions to channel bank grading or a mixture of these solutions.
2. City of Reno – Fund and manage design of pedestrian path and landscape restoration, manage public outreach, issue bidding and construction documents, manage project construction.
3. TRFMA – Design review and construction funding.

We received a draft application from RTC/Parametrix to support 408 permitting for the geotechnical borings for the Keystone Bridge. A pre-application meeting with USACE was held on August 27<sup>th</sup>. USACE has determined that a Drilling & Invasive Program Plan (DIPP) will be required in this location due to the dike included in the original federal project. RTC received NEPA determination from NDOT/FHWA on September 9<sup>th</sup>. CTWCD Board approved the project at the September Board meeting, but will not be submitted until the DIPP is complete. We completed review of the updated application

and sent to USACE on February 7<sup>th</sup>. USACE provided a Notice of Incomplete Submittal and we are working with the proponent to address.

USACE has issued their permission for the City of Reno's Booth Street Sewer Siphon project. The project proponent requested a meeting on April 16<sup>th</sup> to discuss the possibility of sleeving the existing pipe instead of boring a new pipe. We discussed implications with the permit. They have decided to sleeve the pipe, but we will still issue the 408 permit so it is documented in the federal flood project.

Tri Sage accompanied USACE on a field inspection of the Truckee River during the week of June 13<sup>th</sup>. 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 13<sup>th</sup> at Idlewild Park continuing east to the East 2<sup>nd</sup> Street bridge. The inspection continued on Tuesday, June 14<sup>th</sup> at Glendale Bridge to John Champion Park to inspect east end of the CTWCD jurisdiction. A draft report was received via email on June 27<sup>th</sup>. 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 Parametrix (Verdi and Keystone bridge replacements) and NVENV (Trout Unlimited J-hook weir structures). 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). Preliminary review indicates that CTWCD's model is more conservative and TRFMA's model is more accurate because it is a full 2D model. We had an in depth discussion with JUB to review the pros and cons of merging the CTWCD and TRFMA models from Mayberry Park to Glendale. This would be a substantial effort as the models have two different purposes.

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.

## Riverside Drive Berm Restoration

### DRAFT Conceptual Design Opinion of Probable Construction Costs

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. Opinion of probable construction costs prepared by J-U-B Engineers, Inc.

### Riverside Drive Berm 30% Design Conceptual Design Opinion of Probable Cost

Date:

2/12/2025

Project	Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total
Berm	1	Mobilization/Demobilization (7%)	LS	1	\$ 72,345.00	\$ 72,345.00
	2	Environmental Protection - Water/Air Pollution and Erosion Controls	LS	1	\$ 75,000.00	\$ 75,000.00
	3	Traffic Control	LS	1	\$ 25,000.00	\$ 25,000.00
	4	Clearing, Grubbing, and Stripping	AC	2.00	\$ 10,000.00	\$ 20,000.00
	5	Demolish Existing Sidewalk & Pedestrian Ramps	SF	9,490	\$ 10.00	\$ 94,900.00
	6	Remove, Salvage, and Re-Install Garbage Receptacle	EA	5	\$ 500.00	\$ 2,500.00
	7	Remove, Salvage, and Re-Install Bench	EA	6	\$ 750.00	\$ 4,500.00
	8	Remove, Salvage, and Re-Install Sign	EA	7	\$ 500.00	\$ 3,500.00
	9	Bank Stabilization	CY	800	\$ 120.00	\$ 96,000.00
	10	Earthwork - Strip Organics to 2" Depth, remove and dispose	CY	62	\$ 40.00	\$ 2,480.00
	11	Earthwork - Fill (import)	CY	577	\$ 20.00	\$ 11,540.00
	12	Furnish and Install Cast-In-Place Concrete 4" Depth Sidewalk with 4" Base Course	SF	17,034	\$ 20.00	\$ 340,680.00
	13	Furnish and Install Cast-In-Place Concrete Ramp	EA	3	\$ 10,000.00	\$ 30,000.00
	14	Remove, Salvage, and Re-Install Electric Box	EA	7	\$ 1,000.00	\$ 7,000.00
	15	Remove, Salvage, and Re-Install Irrigation Control Valve	EA	12	\$ 250.00	\$ 3,000.00
	16	Remove, Salvage, and Re-Install Water Valve	EA	4	\$ 2,000.00	\$ 8,000.00
	17	Furnish and Install Irrigation System	SF	69,800	\$ 1.00	\$ 69,800.00
	18	Furnish and Install Turf	SF	69,800	\$ 2.00	\$ 139,600.00
	19	Tree Mitigation - Moderate	LS	1	\$ 81,250.00	\$ 81,250.00
	20	Tree Mitigation - Significant	LS	1	\$ 18,750.00	\$ 18,750.00
					<b>Construction Subtotal</b>	\$ 1,105,800
					<b>25% Contingency</b>	\$ 276,500
					<b>Contingent Construction Subtotal</b>	\$ <b>1,382,300</b>
					<b>Planning, Design, Permitting &amp; CM</b>	\$ 346,000
					<b>TOTAL</b>	\$ <b>1,728,300</b>

## Riverside Drive Floodwall

### DRAFT Conceptual Design Opinion of Probable Construction Costs

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### Riverside Drive Floodwall 10% Design Conceptual Design Opinion of Probable Cost

Date:

2/13/2025

Project	Bid Item No.	Pay Item Description	Unit	Quantity	Unit Price	Extended Total
Floodwall	1	Mobilization/Demobilization (7%)	LS	1	\$ 76,760.07	\$ 76,760.07
	2	Environmental Protection - Water/Air Pollution and Erosion Controls	LS	1	\$ 75,000.00	\$ 75,000.00
	3	Removal and Control of Water	LS	1	\$ 50,000.00	\$ 50,000.00
	4	Traffic Control	LS	1	\$ 25,000.00	\$ 25,000.00
	5	Clearing, Grubbing, and Stripping	AC	0.40	\$ 10,000.00	\$ 3,964.99
	6	Demo Existing Sidewalk	SF	675	\$ 5.00	\$ 3,375.00
	7	Demo Existing Roadway	SF	5181	\$ 5.00	\$ 25,907.26
	8	Remove and Replace Riprap Armoring	CY	600	\$ 250.00	\$ 150,000.00
	9	Low-Permeability Fill	CY	1732	\$ 45.00	\$ 77,946.75
	10	Earthwork - Excavation	CY	1386	\$ 40.00	\$ 55,428.80
	11	Furnish and Install Cast-In-Place Concrete Floodwall	CY	219	\$ 1,700.00	\$ 372,157.55
	12	Furnish and Install 6-inch Slotted HDPE Drain Pipe, Toe Drain	LF	407	\$ 95.00	\$ 38,636.50
	13	Furnish and Install Filter Gravel, Toe Drain	CY	45.2	\$ 85.00	\$ 3,841.06
	14	Furnish and Install Cast-In-Place Concrete 4" Depth Sidewalk with 4" Base Course	SF	675	\$ 20.00	\$ 13,500.00
	15	Utility Crossing - Major	EA	3	\$ 20,000.00	\$ 60,000.00
	16	Roadway Repair	SF	5181	\$ 10.00	\$ 51,814.53
	17	Revegetation & Site Restoration	LS	1	\$ 90,000.00	\$ 90,000.00
					<b>Construction Subtotal</b>	\$ 1,173,300
					<b>30% Contingency</b>	\$ 352,000
					<b>Contingent Construction Subtotal</b>	<b>\$ 1,525,300</b>
					<b>Permitting</b>	\$ 117,300
					<b>Planning, Design, &amp; CM</b>	\$ 305,000
					<b>TOTAL</b>	<b>\$ 1,947,600</b>