U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

For use of this form, see 33 CFR 325. The proponent agency is CECW-COR.

Form Approved - OMB No. 0710-0003
Expires: 2027-10-31

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED 12/11/2025	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First – Richard Middle – Last – Wilkinson	First – Martha Middle – Last – Jenkins
Company – Carson Valley Conservation District	Company – Nevada Department of Conservation & Natural Resources
E-mail Address – richard.wilkinson@nv.nacdnet.net	E-mail Address – mjenkins@dcnr.nv.gov
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address – 1702 County Rd Suite A	Address – 405 S 21st St
City – Minden State – NV Zip - 89423 Country – US	City – Sparks State – NV Zip – 89431 Country – US
7. APPLICANT'S PHONE NOs. w/AREA CODE	**10. AGENTS PHONE NOs. w/AREA CODE**
a. Business b. c. Fax	a. Primary b. c. Fax
+17757823661	+17753648045

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Martha Jenkins to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

/s/ - provided on authorized agent form 12/11/2025

SIGNATURE OF APPLICANT Date

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

Running River #2 - Genoa Phase 4 2025 River Restoration Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)

Carson River

14. PROJECT STREET ADDRESS (if applicable)

Address --

City -- Genoa

State -- NV

Zip –

15. LOCATION OF PROJECT

Latitude: ◦N 39.0091764 Longitude: ◦W -119.8268081

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

Section – 10 Township – 013 N Range – 019 E

County – Douglas County Project Area – 1.05 Acres State Tax Parcel ID –

17. DIRECTIONS TO THE SITE

From Carson City, NV: Head south on S Carson St. toward W Musser St. At the traffic circle, take the first exit to stay on S Carson St. Travel 2.8 miles and continue onto US-395 S. Continue 8.1 miles and turn right onto NV-206 (Genoa Lane). Travel 1.9miles then turn right onto Deerhaven Rd. Travel 1.1 miles and continue to the left on Running River Rd. Travel 0.3 miles to the west to the private residence. The project site is 0.25 mile to the southwest of the private residence on the north and east banks of the Carson River.

18. Nature of Activity (Description of project, include all features)

This project is to restore and stabilize a highly eroded section of the Carson Riverbank at site Running River #2, one of six sites proposed as part of the Genoa Phase 4 River Restoration Project in Douglas County, NV. Excess instream materials deposited in the channel during flooding events in 2017 and 2023 will be used to reshape the banks and prevent erosion and degradation during future high-flow events. Some material will also be cut from the top of the bank to use for reshaping the bank. The total project length is 345 linear feet of bank and the total area of impact is 1.05 acres. The average current bank height is 8 feet. Site characteristics include: vertical to concave banks, uplands vegetation being undercut, noticeable sedimentation and turbidity of the river, and two large concrete slabs from an old pump station are sloping from the bank into the river below the ordinary high water mark. See attached initial photo monitoring reports.

This work is proposed to be completed under a Letter of Permission Procedure (LOP). This pathway for authorization has been proposed due to the following characteristics: 1) risk of discharge of dredged or fill material into waters of the US (WOTUS), 2) project will have minimal or less than significant impacts on the human environment under NEPA, 3) project will include dredging of more than 25 cubic yards of instream material, 4) project does not meet the terms of NWP 45 or NWP 13, and 5) project does not exceed one acre of permanent loss of WOTUS or 1,000 linear feet of streambed.
It is estimated that 298 cubic yards of material will be cut from the banks, of which 241 will be from above the Ordinary High Water Mark (OHWM) and 57 will be from below the OHWM. Approximately 493 cubic yards of instream material will be dredged from borrow areas and used as permanent bank fill. A total of 395 cubic yards of large riprap rock (Classes 300, 550, and 700) will be placed at the project site as permanent fill. Rock will be placed at a height of 2-3 feet along the toe and lower slope to reinforce the shaped bank, prevent future erosion, and allow for sediment deposition in between the rock spaces. Two large concrete slabs from an old pump station have been inspected and will be removed from the site and properly disposed of outside of the floodplain. For removal, a large excavator with a thumb will be used. If any pieces break off, they will be collected by hand or with the excavator. Specifications for removal will be included in contractor's Scope of Work to remove all concrete, rebar, or other materials attached to the pad.

Upon project initiation, BMPs will be installed, and the site will be dewatered in order to work in the channel without creating a discharge. Live flows will be diverted towards the opposite bank by excavating a channel through or around the existing in-stream bar and then diverting flows into that excavated channel. Temporary impacts resulting from dewatering will include a 284 linear-foot channel (0.1 acre surface area and 379 CY of instream material temporarily dredged). It is not

anticipated that k-rails or other similar dewatering materials will be used directly onsite for this project. Running River #2 is directly downstream of another Carson Valley Conservation District project site titled Carnes #2 - Genoa Phase 4 2025 River Restoration Project (submitted under a separate LOP, File Number: SPK-2022-00544). Thus, the dewatering diversion at Carnes #2 will utilize k-rails upstream, and the channel will then continue into and through the Running River #2 project (see engineer plans for details).
The project construction contractor will utilize the following equipment for the specified actions: a dozer to push in-stream materials to the bank, an excavator to load and place materials, a loader to haul and drop materials, haul trucks to transport materials to and from the site, a street sweeper to remove dirt tracked out onto roadways, water trucks for dust control, and a backhoe for similar functions of the loader and excavator. CVCD will apply bioengineering methods to stabilize and protect the banks with the interspaces of and above the riprap rock on the toe and upper slopes (willow poles, bundles and fascines). A stinger will be utilized to plant willow poles and bundles to a depth of ~3 feet. Coir fabric will be utilized on the upper slopes to protect from soil erosion. The District plans to start this work as soon as possible and during the driest time of the year, potentially between February and March of 2026, though timing will depend on the approval of permitting from all regulatory agencies. If all permitting is not authorized for this winter timeline, construction will be pushed until the fall of 2026.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of this project is to stabilize the riverbank, restore the connection of river to floodplain, and encourage the restoration and natural recovery of riparian habitat through bank stabilization and bioengineering applications. Approximately 345 linear feet along the bank of the project will be reshaped to a 3 to 1 slope with the intent to create a gradual connection of the river to the floodplain. Bank-cut and instream materials will be used as fill to reshape the bank and will be protected and reinforced by rock riprap with interspersed willow plantings on the bank toe and lower slope and bioengineering applications on the upper slope. Bioengineering and seeding applications will be used on the rock slope and upland areas with the aim of restoring vegetation at the site.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The District does not anticipate any significant discharges as construction is planned during the driest time of the year. This section of the river often dries out during the winter so that water levels are extremely low, however this is dependent on annual precipitation and runoff levels. A minor discharge is possible if water levels unexpectedly come up during construction. A small discharge may occur when first creating the dewatering channel. Responsible dewatering practices and the application of BMPs which will be determined in the construction contract will help minimize any potential discharges. Contractors will not work in water above a certain CFS (usually 600 CFS, written into contract) to not create significant discharge; the contractor has the flexibility to not work if not comfortable with water level and flows.

21. Type(s) of Material Being Discharged and the Amount of Each Type:

See Appendix C

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

See Appendix C

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The District will require contractors to bring clean and leak free equipment to and from the project site. In addition, extensive BMPs for mitigation of discharges will be in place and stated within all contract documents. The proposed work will take place at the driest time of the year and if necessary, will dewater the site to ensure that the project does not create a discharge and increase turbidity of the river. Project boundaries and all desirable vegetation will be marked, and critical areas will be avoided to protect resources. The District will require contractors to water for dust control and sweep for any materials tracked out onto access roads. Reseeding with native or desirable vegetation will take place on all areas impacted by equipment and the staging of materials. Contractors will not work in water above a certain CFS (usually 600 CFS, written into contract) to not create significant discharge; the contractor has the flexibility to not work if not comfortable with water level and flows. Contractors will follow BMP guidelines determined within the contract and ensure that the storage of stockpiles and staging of equipment is at least 100ft from the OHWM. Stockpiles will likely only be used for rock riprap. Instream material will be pushed from the center of the riverbed over to the bank using the contractors choice of equipment (loader, excavator, backhoe, and/or dozer). CVCD prefers the use of a loader, but this does not work with fine/silty material. Material that is moved that day will likely be utilized that day. CVCD requires that stored materials be wrapped, and that silt

fencing and filtration waddles are utilized during storage.

The construction contractor is responsible for obtaining the approved SWPP for the proposed project. A construction contractor has not yet been selected for this project. An approved SWPP will be obtained prior to the start of work, and this will define specific work erosion control measures. Typical erosion control measure that will be required include: 1) limited site access, 2) stockpiles will have perimeter controls such as silt fencing and/or filtration wattles, 3) erosion prevention by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, and temporary silt fencing, 4) work will be done during appropriate weather conditions and will shut down work during storms when wind, rain, or snow would cause increased site erosion due to active work, and 5) project boundaries will be marked to ensure that the minimum area necessary for project completion will be affected by construction activities.

The site will likely be dewatered only once for construction. The low elevation of the streambed will be determined during the engineering survey and instream material will be dredged to no lower than the lowest current elevation. Attached Engineered Drawings depict the general conceptual plan for dewatering. The construction contractor will determine the final method for dewatering and will submit a plan to CVCD, with a seven-day review period. The contractor may choose to terminate the backend of the project into a sand and gravel pile. A dewater trench will be utilized downstream and will not reduce the elevation of the streambed. A small discharge may occur when first creating the dewatering channel. However, the District will utilize silt fencing and filtration waddles to capture any downstream sediment flow.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☑ No

If Yes, describe the completed work:

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

/s/ - provided on authorized agent form		Martha Jenkins	12/11/2025
SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Genoa Phase 4 2025 River Restoration Project - Impacts Table

Carson Valley Conservation District

Site	USACE	Impact Duration	Impact Description	Linear Feet	Area (acres)	Cubic Yards Fill	Cubic Yards Dredge/Cut
Running River #2	Letter of Permission Procedure (LOP)	Temporary	Dewatering trench	Channel = 284 K-rails = none*	0.1	Channel = 379 K-rails = none*	Channel = 379
			Pushing instream material	345	0.48	-	-
		Permanent	Bank stabilization	345	0.28	Riprap = 395 Bio. materials = 18 Bank fill = 550	Bank cut = 57
			Borrow areas	-	0.19**	-	Instream material = 493
				Total Site 1 Area:	**1.05**		

**Note: The Running River #2 site is directly downstream of the Carnes #2 site (submitted under separate application). K-rails will be used at the Carnes #2 site to dewater the entire section of the river spanning both sites.*

*** Note: Borrow area acreages cover all potential areas where instream material may be dredged. Only enough of this acreage will be dredged to supply the specified instream material.*

404(b)(1) Alternatives Analysis

Project Information	
Applicant:	Carson Valley Conservation District
Contact:	Richard Wilkinson, Richard.wilkinson@nv.nacdnet.net, (775) 782-3661
Project Title:	Running River #2 – Genoa Phase 4 2025 River Restoration Project
Project Location:	APN: 1319-03-810-001; 39.0092252, -119.8269395 (work site) APN: 1319-11-001-013 (access property)
Date:	December 11, 2025

1.0 Introduction

The Carson Valley Conservation District (CVCD) proposes the Running River #2 – Genoa Phase 4 2025 River Restoration Project (Project) to address severe erosion and degradation of riparian habitat resulting from flood events in 2017 and 2023. The Running River #2 site is one of six priority sites identified by CVCD in the Genoa, NV area which make up the Genoa Phase 4 River Restoration Project. This Project is designed to restore the stability of the riverbanks while minimizing environmental impacts to have a net positive effect on natural resources in the area. Under the Section 404(b)(1) guidelines, the U.S. Army Corps of Engineers (USACE) may only permit discharges of dredged or fill material into Waters of the United States (WOTUS) if they represent the Least Environmentally Damaging Practicable Alternative (LEDPA) and do not result in other significant adverse environmental consequences. This document evaluates potential alternatives and their associated impacts on WOTUS.

1.1 Project Purpose and Need

The purpose of the Project is to provide mitigation of flood damage and bank erosion on the Carson River near Genoa, NV through bank stabilization and bioengineering methods to meet local conservation and land management needs. The Project is necessary to address severe erosion and sediment transport which have resulted in bank destabilization, degradation of riparian habitat, property loss, and increased flood vulnerability.

The primary objectives of this Project are:

- To stabilize approximately 345 linear feet of the Carson Riverbank where severe erosion has occurred.

- To mitigate downstream sediment transport.
- To restore riparian habitat and improve flood resilience through bank stabilization and bioengineering techniques.
- To prevent further channel migration, flood-related damage, and property loss while maintaining the natural functions of the Carson River.

This Project is inherently dependent upon working within WOTUS, as the Project purpose cannot be fulfilled outside of open water in the Carson River.

2.0 Background Information and Existing Site Conditions

2.1 Site Location

The Project is located near Genoa, NV within the Carson River, a perennial, Section 10 river, and a traditionally navigable waterway (TNW). The Project is within the Upper Carson Watershed, hydrological unit code (HUC) 8-16050201. The surrounding area is influenced by agricultural and residential land-use. Access to the Project site is from a private residential driveway on Running River Road (north of Genoa Lane), on parcel APN 1319-11-001-013. The approximate project work center point is 39.007043° N, -119.825971° W, which occurs on the adjacent parcel APN:1319-03-810-001.

The Project is located below the confluence of the East and West Forks of the Carson River, and within Nevada Administrative Code (NAC) Reach 1812, Carson River at Genoa Lane to Cradlebaugh Bridge, which is approximately 4.6 miles in length (except for the length within exterior borders of Washoe Indian Reservation).

2.2 Current Site Conditions

Flood damage in 2017 and 2023, exacerbated by seasonal high flows in other years, has resulted in significant lateral erosion of the riverbank at the Project bend and adjacent straights on the south and west banks. The Project length is approximately 345 linear feet, and the average current bank height is 8 feet. Site characteristics include vertical to concave banks, uplands vegetation being undercut, noticeable sedimentation and turbidity of the river, and two large concrete slabs from an old pump station that are sloping from the bank into the river below the ordinary high-water mark.

Reach 1812 is an EPA Category 5 Water, meaning it is impaired or threatened by pollutant(s) for one or more designated uses and requires a Total Maximum Daily Load (TMDL), and is thus included on the 303(d) List of Impaired Waters (NDEP, 2022). The impaired use identified at Reach 1812 is aquatic life (AQL). The standards which determine the impaired use include dissolved oxygen and temperature (non-TMDL) as well as the

TMDL parameters of total phosphorus (TP), total suspended solids (TSS), and turbidity (CRC, 2017; NDEP, 2022). Reach 1812 is listed as a high restoration priority in the Carson River Watershed Adaptive Stewardship Program 2017 update, a collaborative watershed based plan composed by local stakeholders to identify and address potential sources of nonpoint source pollution.

3.0 Resource Conservation and Protection Measures

The following conservation measures will be implemented throughout the Project, either under the selection of the Preferred Alternative or Reduced Impact Alternative.

3.1 Migratory Bird Protection Measures

Construction activities that require vegetation removal would be scheduled outside of the bird breeding season (March through July) and are planned to occur during low-flow conditions, typically in the fall or winter. If construction activities must take place during the bird breeding season, a qualified biological monitor with expertise in regional avian breeding behaviors would survey the habitat for active nests. If an active nest is identified, a 100-foot radius no-work buffer zone would be established around the nest until the young have fledged and vacated the area.

3.2 Federally Listed Threatened or Endangered Species

Through the use on online geospatial resources and collaboration with Project stakeholders and regulatory partners, CVCD has determined that there will be No Effect to any federally threatened, endangered, or at-risk species or their habitats. An IPAC (Information for Planning and Consultation) Resource List created for this Project indicates that no critical habitat exists at the Project site and that the following species could be *potentially* affected by activities in this location: Northwestern pond turtle (*Actinemys marmorata*), Carson wandering skipper (*Pseudocopaedes eunus*), Monarch butterfly (*Danaus plexippus*). However, surveys have determined that none of these species are present onsite, thus a determination of No Effect has been made and does not require concurrence from the US Fish and Wildlife Service (USFWS).

3.2 Best Management Practices

CVCD will require contractors to bring clean and leak free equipment to and from the Project site. In addition, extensive BMPs for mitigation of discharges will be in place and stated within all contract documents. The proposed work will take place at the driest time of the year and if necessary, will dewater the site to ensure that the Project does not create a discharge and increase turbidity of the river. Project boundaries and all desirable

vegetation will be marked, and critical areas will be avoided to protect resources. The District will require contractors to water for dust control and sweep for any materials tracked out onto access roads. Reseeding with native or desirable vegetation will take place in all areas impacted by equipment and the staging of materials. Contractors will not work in water above a certain CFS (usually 600 CFS, written into contract) to not create significant discharge; the contractor has the flexibility to not work if not comfortable with water level and flows. Contractors will follow BMP guidelines determined within the contract and ensure that the storage of stockpiles and staging of equipment is at least 100ft from the OHWM. Stockpiles will likely only be used for rock riprap. Instream material will be pushed from the center of the riverbed over to the bank using the contractor's choice of equipment (loader, excavator, backhoe, and/or dozer). CVCD prefers the use of a loader, but this does not work with fine/silty material. Material that is moved that day will likely be utilized that day. CVCD requires that stored materials be wrapped, and that silt fencing and filtration waddles are utilized during storage.

The construction contractor is responsible for obtaining the approved SWPP for the proposed Project. A construction contractor has not yet been selected for this Project. An approved SWPP will be obtained prior to the start of work, and this will define specific work erosion control measures. Typical erosion control measures that will be required include:

- Limited site access.
- Stockpiles will have perimeter controls such as silt fencing and/or filtration wattles.
- Erosion prevention by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, and temporary silt fencing.
- Work will be done during appropriate weather conditions and will shut down work during storms when wind, rain, or snow cause increased site erosion due to active work.

Project boundaries will be marked to ensure that the minimum area necessary for completion will be affected by construction activities. The site will likely be dewatered only once for construction. The low elevation of the streambed will be determined during the engineering survey and instream material will be dredged to no lower than the lowest current elevation. Attached Engineered Drawings depict the general conceptual plan for dewatering. The construction contractor will determine the final method for dewatering and will submit a plan to CVCD, with a seven-day review period. The contractor may choose to terminate the backend of the Project into a sand and gravel pile. A dewater trench will be utilized downstream and will not reduce the elevation of the streambed. A small discharge may occur when first creating the dewatering channel. However, the

District will utilize silt fencing and filtration waddles to capture any downstream sediment flow.

Once construction is complete, the dewatering channel will be backfilled. There will be no piles of material remaining, and the area will be clear of debris. The removal of the diversion will allow for the return of the live stream flows to the original low flow channel. The work will be ordered so that equipment will not be driving through live stream flows.

3.3 Compensatory Mitigation

CVCD has determined that compensatory mitigation is not necessary for this Project as actions will not result in potentially significant impacts on the human environment. CVCD is responsible for ensuring that the Project is designed to avoid and minimize effects on the aquatic environment to the maximum extent practicable. The Project will not result in the loss of WOTUS, wetlands, stream bed, or aquatic resource functions.

4.0 Identification of Project Alternatives

4.1 Alternatives Considered

Table 1 provides a comparison of the three on-site alternatives evaluated for the Project. The table outlines the alternative description, potential benefits, disadvantages, and expected impacts to WOTUS. Off-site alternatives were not considered because the Project purpose is water dependent and site specific.

Table 1. Alternatives Considered

Alternative	Description	Benefits	Disadvantages	Impact to WOTUS
No Action Alternative	No bank stabilization measures implemented. Continued erosion would occur. Project Cost: $0	No construction impact. No fill or dredge/ excavation.	No bank protection. No restoration occurs; riparian habitat loss continues. No reduction in sediment transport. Two concrete pads from old pump station are left below the OHWM.	No impacts to WOTUS. However, future degradation to WOTUS would be expected through continued bank de-stabilization and contamination.
Reduced Impact Alternative	The work footprint (acres) and length (ln. ft.) is the same	Reduces fill material. Maintains some erosion	Less effective long-term stabilization, potential for bank	**Permanent Impacts:** Total Perm. Impact: 1.05 acres/ 345 linear feet

	as the Preferred Alternative, but the volume (cubic yards) of material of fill/dredge/cut would be reduced by 30%. Limited restoration potential due to decreased bank reinforcement. Project Cost: $99,200	control and habitat restoration. Reduces project cost.	failure under high flows. Likely continued mobilization of some sediment. A dewatering trench is necessary regardless of fill quantities, so temporary impacts remain unchanged.	Total Perm. Fill: 674 cubic yards Total Perm. Dredge/Cut: 385 cubic yards **Temporary Impacts:** Total Temp. Impact: 0.58 acres/345 linear feet Total Temp. Fill: 379 cubic yards Total Temp. Dredge/Cut: 379 cubic yards
Preferred Alternative	Full bank stabilization using a combination of regraded bank slopes, riprap, and bioengineering techniques. Project Cost: $124,000	Provides long-term stabilization and protection against continued erosion and high flows. Reduces sediment transport. Improves riparian habitat.	Requires the most fill material and construction effort.	**Permanent Impacts:** Total Perm. Impact: 1.05 acres/ 345 linear feet Total Perm. Fill: 963 cubic yards Total Perm. Dredge/Cut: 550 cubic yards **Temporary Impacts:** Total Temp. Impact: 0.58 acres/345 linear feet Total Temp. Fill: 379 cubic yards Total Temp. Dredge/Cut: 379 cubic yards

4.2 Criteria Used to Identify Alternatives

This section discusses the criteria used to assess on-site alternatives.

4.2.1 Criteria for On-Site Alternatives

On-site criteria for alternatives must meet the following criteria:

- Erosion control and sediment containment
- Long-term effectiveness
- Habitat restoration

4.2.2 USACE Criteria

The USACE applies criteria in the review of proposals to fill WOTUS to identify potential alternatives. CFR 230.10(a)(2) states that, "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."

Thus, an alternative can be eliminated if it:

- Does not meet the Project purpose and need
- Is not practicable because of cost
- Is not practicable because of existing technology
- Is not practicable because of logistics
- Is not least damaging to the aquatic ecosystem
- It has other significant adverse impacts to the natural environment.

5.0 Evaluation of Alternatives

This section evaluates the alternatives presented in Table 1 and how they correspond to the Project purpose and need and the Corps' guidelines for practicable alternatives.

5.1 No Action Alternative

The No Action Alternative was eliminated because it does not provide erosion control or sediment containment. This alternative would allow continued bank destabilization and increased sediment transport. Additionally, this alternative lacks long-term effectiveness, as unchecked erosion would continue to encroach on adjacent infrastructure and property, requiring future, and potentially more costly, intervention. Finally, the absence of habitat restoration under this alternative fails to support riparian vegetation recovery, leading to further habitat degradation. Overall, the No Action Alternative does not satisfy the Project purpose and need.

5.2 Reduced Impact Alternative

The Reduced Impact Alternative was eliminated because while it provides some degree of erosion control and sediment containment, the 30% reduction in permanent fill volume compromises its ability to sustain long-term stabilization. Over time, insufficient stabilization could result in the need for additional corrective measures, increasing costs. Additionally, habitat restoration would be limited, as bioengineering elements such as willow staking and native vegetation plantings would also be scaled back to lower fill volume. While the Reduced Impact Alternative offers some erosion control and sediment containment, its limitations in stabilization and habitat restoration prevent it from fully

meeting the Project's long-term objectives and does not fully meet the Project's purpose and need.

5.3 Preferred Alternative

The Preferred Alternative was selected because it provides the most effective erosion control, sediment containment, and riparian habitat restoration. While it involves more initial cost and fill, this alternative ensures long-term stability, reducing the likelihood of future bank failures and minimizing the need for future additional corrective actions. The combination of regraded bank slopes, riprap reinforcement, and bioengineering techniques maximizes bank protection and reduces sediment transport. The preferred Alternative fully meets the Project purpose and need as well as meets requirements in Section 4.2.1 Criteria for On-Site Alternatives and the Corps as defined in Section 4.2.2 USACE Criteria.

6.0 Recommendation

It is the professional opinion of CVCD that the Preferred Alternative is recommended for implementation as the LEDPA. This alternative provides the most effective erosion control, sediment containment, and riparian habitat restoration while ensuring long-term bank stabilization. While it involves greater initial cost and fill, it minimizes long-term maintenance needs and prevents further environmental degradation.

7.0 References

Carson River Coalition (CRC). (2017). Carson River Watershed Adaptive Stewardship Plan, update. Carson Water Subconservancy District. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cwsd.org/wp-content/uploads/2017/12/Final-CRWASP-2017-Update-Plan-Part-1.pdf

Nevada Division of Environmental Protection (NDEP). (2022). Nevada 2020-2022 Water Quality Integrated Report. Bureau of Water Quality Planning. Retrieved from https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/303d-305b-water-quality-integrated-report

U.S. Army Corps of Engineers (USACE). (2024). Letter of Permission Procedure for Discharges of Dredged or Fill Material into Waters of the United States with Less Than Significant Impacts on the Human Environment. Sacramento District. Retrieved from https://www.spk.usace.army.mil/Portals/12/documents/regulatory/public_notices/FY2 024/EXP-SEP-24/2024.09.20-Regional-CWA-404-LOP-202400011.pdf

U.S. Environmental Protection Agency (EPA) & U.S. Army Corps of Engineers (USACE). (1980). Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230). Retrieved from https://www.ecfr.gov/current/title-40/chapter-I/subchapter- H/part-230.

The following sections are to be completed by the Responsible Federal Official (RFO)

NRCS is the RFO if the action is subject to NRCS control and responsibility (e.g., actions financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HEL or wetland determinations) not associated with the planning process.

P. Determination of Significance or Extraordinary Circumstances

To answer the questions below, consider the severity (intensity) of impacts in the contexts identified above. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

If you answer ANY of the below questions "yes" then contact the State Environmental Liaison as there may be extraordinary circumstances and significance issues to consider and a site specific NEPA analysis may be required.

Yes	No	
☐	☐	• Is the preferred alternative expected to cause significant effects on public health or safety?
☐	☐	• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?
☐	☐	• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?
☐	☐	• Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?
☐	☐	• Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?
☐	☐	• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?
☐	☐	• Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species.
☐	☐	• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?

Q. NEPA Compliance Finding (check one)

The preferred alternative:		**Action required**
☐	1) is **not a federal action** where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
☐	2) is a federal action **ALL** of which is **categorically excluded** from further environmental analysis **AND** there are **no extraordinary circumstances as identified in Section "P".**	Document in "R.2" below. No additional analysis is required
☐	3) is a federal action that has been **sufficiently analyzed** in an existing Agency state, regional, or national NEPA document **and** there are no predicted significant adverse environmental effects or extraordinary circumstances.	Document in "R.1" below. No additional analysis is required.
☐	4) is a federal action that has been sufficiently analyzed in another Federal agency's NEPA document (EA or EIS) that addresses the proposed NRCS action and its' effects **and has been formally adopted by NRCS**. NRCS is required to prepare and publish its own Finding of No Significant Impact for an EA or Record of Decision for an EIS when adopting another agency's EA or EIS document. (**Note: This box is not applicable to FSA)**	Contact the State Environmental Liaison for list of NEPA documents formally adopted and available for tiering. Document in "R.1" below. No additional analysis is required
☐	5) is a federal action that has **NOT** been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.	Contact the State Environmental Liaison. Further NEPA analysis required.

R. Rationale Supporting the Finding	
R.1 Findings Documentation	
R.2 Applicable Categorical Exclusion(s) **(more than one may apply)** 7 CFR Part 650 *Compliance With NEPA* , subpart 650.6 *Categorical Exclusions* states prior to determining that a proposed action is categorically excluded under paragraph (d) of this section, the proposed action must meet six sideboard criteria. See NECH 610.116.	

I have considered the effects of the alternatives on the Resource Concerns, Economic and Social Considerations, Special Environmental Concerns, and Extraordinary Circumstances as defined by Agency regulation and policy and based on that made the finding indicated above.

S. Signature of Responsible Federal Official:

Signature	Title	Date

Additional notes

LETTER OF PERMISSION PROCEDURE FOR DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES WITH LESS THAN SIGNIFICANT IMPACTS ON THE HUMAN ENVIRONMENT

EFFECTIVE: 20 September 2024

The U.S. Army Corps of Engineers (Corps), Albuquerque, Los Angeles, Sacramento, and San Francisco Districts, establish this procedure for issuing a Letter of Permission (LOP) to efficiently authorize activities that involve a discharge of dredged or fill material into waters of the United States (U.S.) under Section 404 of the Clean Water Act (CWA 404) which have minimal or less than significant impacts on the human environment under the National Environmental Policy Act (NEPA).

Note: The term "District" refers to the appropriate District office identified in the *Contacts and Additional Information* section.

ISSUING OFFICES: U.S. Army Corps of Engineers, Albuquerque, Los Angeles, Sacramento, and San Francisco Districts (Districts).

ACTION ID: SPK-2024-00011

AUTHORITY: Section 404 of the Clean Water Act (CWA) for the discharge of dredged or fill material in waters of the United States, including Section 10 of the Rivers and Harbors Act (RHA 10) of 1899 for structures or work in or affecting navigable waters of the U.S., only when the proposed activity requires authorization under both CWA 404 and RHA 10.

LOCATION: States of Arizona, California, Nevada, New Mexico, and Utah and counties in southern Colorado, and western Texas (see attachment).

BACKGROUND: In accordance with Title 33 of the Code of Federal Regulations (CFR) Part 325, district engineers are authorized to use alternative procedures, including LOPs, to authorize activities under the Corps' Regulatory Program. LOPs are a type of individual permit issued through an abbreviated processing procedure which includes coordination with federal and state fish and wildlife agencies, as required by the Fish and Wildlife Coordination Act, and a public interest evaluation, but without publishing an individual public notice. In accordance with 33 CFR Part 325.2(e)(1), LOPs may be used in those cases subject to CWA 404 when:

1. The district, through consultation with federal and state fish and wildlife agencies, the Regional Administrator, Environmental Protection Agency, and the state water quality certifying agency, develops a list of categories of activities proposed for authorization under LOP procedures.

2. The district issues a public notice advertising the proposed list and the LOP procedures, requesting comments and offering an opportunity for public hearing; and,

3. A CWA 401 water quality certification (WQC) has been issued or waived and, if appropriate, Coastal Zone Management (CZM) consistency concurrence obtained or presumed either on a generic or individual basis.

Most discharges of dredged or fill material into waters of the US with minimal impact are authorized under one or more general permits (nationwide, regional, or programmatic). Proposed discharges that could result in significant effects on the human environment require the preparation of an Environmental Impact Statement under the National Environmental Policy Act (NEPA). This procedure covers activities that cannot be authorized under a general permit but have less than significant individual and cumulative impacts on the human environment.

Under NEPA, the lead federal agency determines whether a federal action has the potential to have significant effects on the human environment.

CATEGORIES OF ACTIVITIES: Activities to be authorized include, but are not limited to: residential, commercial, industrial, recreational, agricultural, and municipal development; renewable energy; transportation, infrastructure, and utility lines; mining; flood and sea level rise protection; storm-water management and polishing; survey, research, testing and monitoring; environmental remediation, restoration, and enhancement; repair, rehabilitation, and maintenance; and hydropower, reclamation, and reuse facilities.

MITIGATION: Prospective permittees are responsible for ensuring the proposed activity is designed to avoid and minimize effects to the aquatic environment to the maximum extent practicable. In addition, prospective permittees are responsible for proposing necessary compensatory mitigation to ensure the LOP activity will not result in potentially significant impacts on the human environment.

For impacts to waters of the U.S., the amount of compensatory mitigation required must be, to the extent practicable, sufficient to replace lost aquatic resource functions and services (see 33 CFR Part 332.3(f)). If a functional or condition assessment or other suitable metric is not used to determine how much compensatory mitigation is required, a minimum one-to-one acreage or linear foot compensation ratio must be used. Compensatory mitigation proposals must comply with the applicable provisions of 33 CFR Part 332 and applicable regional guidance, such as the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division*, or most recent update available at: http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx/.

The preferred mechanism for providing compensatory mitigation that appropriately offsets impacts to waters of the U.S. is through the purchase of credits from a Corps-approved mitigation bank. When no, or an insufficient number of, mitigation bank credits are available through a bank, compensatory mitigation may be achieved through a Corps-approved, in-lieu fee (ILF) program (see 33 CFR Part 332.3(b)(2) and (3)). If an appropriate number and type of mitigation bank or ILF credits are not available at the time a LOP is requested, the project proponent may submit a draft plan for permittee-responsible mitigation (PRM). A final mitigation plan will need to be approved by the District before a LOP is issued. Note that proposed activities which rely on PRM may require more review time by the District.

EXCLUSIONS:

1. This procedure does not apply to activities authorized solely under Section 10 of the Rivers and Harbors Act of 1899 (RHA 10). RHA Section 10-only activities are covered by LOP procedures at 33 CFR Part 325(e)(1)(i). However, this procedure may be used if the proposed activity requires authorization under both CWA 404 and RHA 10.

2. This procedure does not apply to bridges and pipelines constructed over waters covered under Section 10 of the Rivers and Harbors Act of 1899. Bridges and pipelines require authorization by the U.S. Coast Guard under Section 9 of the Rivers and Harbors Act of 1899.

3. This procedure does not apply to any activities in waters of the U.S. that have a potential to significantly impact the human environment under the NEPA, as determined by the District.

4. This procedure does not apply to any activities within Los Angeles District's San Diego Creek Watershed Special Area Management Plan (SAMP) and San Juan Creek/Western San Mateo Creek SAMP areas.

TERMS:

1. Activities proposed under this LOP procedure are subject to the following thresholds:

   a. The permanent loss of waters of the U.S. shall not exceed one (1) acre.

   b. The permanent loss of waters of the U.S. shall not exceed 1,000 linear feet of streambed. The permanent loss of streambed shall be included in the acreage threshold identified in 1(a).

For the purposes of this procedure, a permanent loss of waters of the U.S. would occur if the discharge of dredged or fill material would convert a water of the U.S. into dry land (i.e., upland). Conversion of one aquatic resource type to another aquatic resource type (e.g., wetland into open water) is not considered a permanent loss of waters of the U.S.

2. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate federal agency with direct management responsibility for such river has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status, available at: https://www.rivers.gov/.

3. No activity is authorized which is likely to directly or indirectly, jeopardize the continued existence of a threatened or endangered species, or a species proposed for such designation as identified under Section 7 of the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation.

4. No activity is authorized which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

5. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

6. No activity may cause more than a minimal adverse effect on navigation. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.

7. No activity may significantly disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies must be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

8. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

9. The activity must comply with the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles,

including whether "incidental take" permits are necessary and available under the MBTA or BGEPA for any LOP activity.

10. For activities affecting the coastal zone, individual state CZM consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR Parts 325.2(b)(2) and 330.4(d)). The State CZM agency may require additional measures to ensure that the authorized activity is consistent with state CZM requirements. Conditions placed upon a CZM consistency concurrence by the State CZM agency will be incorporated by reference and become special conditions of the LOP.

11. For activities resulting in the discharge of dredged or fill material into waters of the U.S., individual Section 401 WQC, or waiver, must be obtained from the appropriate certifying agency. Conditions placed upon a Section 401 WQC by the certifying agency will be incorporated by reference and become special conditions of the LOP.

12. Activities occurring on the Colorado River, including the discharge of dredged or fill material, must comply with Los Angeles District's February 2022, *Colorado River Guidelines*, or most recent update available at: https://www.spl.usace.army.mil/Missions/Regulatory/Permit-Process/.

13. Bioengineered techniques shall be used to the maximum extent practicable for bank stabilization. Bioengineered techniques include using a combination of biological, mechanical, and ecological concepts to control erosion and stabilize soil through the sole use of vegetation, or a combination of vegetation and construction materials. If bioengineering techniques are not practicable or appropriate, supporting rationale must be provided.

PROCEDURES: Applications must be submitted through the Corps' Regulatory Request System (https://rrs.usace.army.mil) using the "Apply for a Permit" function. To be considered for authorization under this LOP procedure, the application must include all information required for a standard permit application, pursuant to 33 CFR Part 325.1, as well as the following:

1. An aquatic resources delineation for the proposed activity area, conducted in accordance with the Corps' minimum standards for aquatic resource delineations, or information that an aquatic resources delineation has been verified (including Corps file number) and is still valid.

2. Site location map(s), including the site of the proposed activity, clearly outlined on U.S. Geological Survey 7.5-foot quad sheet drawings, with latitudes and longitudes for the site(s), name of the quad sheet(s) and directions to the site, as well as all appropriate aerial and other imagery available.

3. Plan and profile views of the proposed work, relative to potential or approved waters of the U.S. (e.g., wetlands, tidal waters below (seaward of the high tide line, and open waters below the ordinary high-water mark), showing areas, types, and acreages of waters of the U.S. to be

impacted by the proposed activity. All available drawings must show proposed impacts on appropriately scaled figures, and should be prepared in accordance with the February 2016, *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program*, or most recent update available at: http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx/).

4. The total area (in acres), including length and width for linear features, volume (in cubic yards), and composition/type of material to be discharged into each type of aquatic resource.

5. A description of how impacts to waters of the U.S. and associated functions (e.g., water quality and habitat) have been avoided and minimized to the maximum extent practicable within the permit area.

6. A description of potential indirect (secondary) and cumulative impacts to waters of the U.S. and the human environment in the watershed and vicinity of the proposed activity. The description of impacts and any proposed mitigation measures should be sufficiently detailed to allow the District to determine that the adverse environmental effects of the activity will be less than significant on the human environment, and to determine the need for compensatory mitigation or other mitigation measures.

7. If compensatory mitigation is proposed at a Corps-approved mitigation bank and/or ILF program, the proposal must include the name of the bank/ILF, the number and resource type of credits to be secured, and a statement on how these were determined. If PRM is proposed, the project proponent must submit a comprehensive mitigation and monitoring plan, for review and approval by the District. The plan must include the mitigation location and design drawings, vegetation plans, and final success criteria, presented in the format of the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division*, or most recent update available at: http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx/).

8. Information, in report form, concerning the practicability of on-site alternatives in accordance with 33 CFR Parts 325.1(e) and 323.6(a). The information must address compliance with U.S. Environmental Protection Agency's (USEPA's) Section 404(b)(1) Guidelines (404(b)(1) Guidelines) for Specification of Disposal Sites at 40 CFR Part 230. The report should include all applicable information for the District to determine whether an alternative meets the overall project purpose and is available, practicable (considering cost, existing technology, and logistics), would result in fewer adverse effects to the aquatic environment, or would have other significant adverse environmental consequences.

9. Documentation that a request for an individual section 401 WQC/CZM consistency concurrence was submitted to the appropriate certifying authority/State coastal zone agency, including the date of request. If a request for an individual section 401 WQC/CZM consistency concurrence has not been submitted, the project proponent must identify the date an individual section 401 WQC/CZM consistency concurrence is anticipated to be requested.

10. For non-Federal permittees, if the activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places (collectively “historic properties”), the application must state which historic property(s) might have the potential to be affected by the proposed activity and include a vicinity map indicating the location of the historic property(s) relative to the proposed activity in waters of the U.S. so the District may determine the potential effect on historic properties and if necessary, consult with the State Historic Preservation Officer or Tribal Historic Preservation Officer (as appropriate) in accordance with Section 106 of the NHPA. Federal permittees must provide documentation demonstrating compliance with Section 106 of the NHPA.

11. For non-Federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the application must include:

a. a description of the action to be considered;

b. a description and map of the specific area that may be affected by the action;

c. a description of any listed species or critical habitat that may be affected by the action;

d. a description of the manner in which the action may affect any listed species or critical habitat and an analysis of any cumulative effects and a recommended determination of effect for each species and critical habitat; and,

e. any other relevant available information on the action, the affected listed species, or critical habitat. Federal permittees must provide documentation demonstrating compliance with Section 7 of the ESA.

12. For non-Federal permittees, if the activity has the potential to adversely affect Essential Fish Habitat (EFH), as designated by the Pacific Fishery Management Council, the application must include an EFH assessment and analysis of effects of the action on EFH, in accordance with 50 CFR Part 600.920(e) so that the District may make a determination of effect on EFH and if necessary, consult with National Marine Fisheries Service in accordance with Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Federal permittees must provide documentation demonstrating compliance with the MSA.

13. For proposed activities where another Federal agency is the lead, the applicant must provide the District with the appropriate documentation to demonstrate compliance with all applicable federal laws, including Section 106 of the NHPA, Section 7 of the ESA, and/or Section 305(b)(2) of the MSA, and if available, documentation demonstrating compliance with

the National Environmental Policy Act, such as a Categorical Exclusion, Environmental Assessment/Finding of No Significant Impact, or Environmental Impact Statement/Record of Decision.

14. A statement confirming if the proposed activity will require permission from the Corps pursuant to 33 U.S.C. 408 (Section 408) because it would (or "proposes to") alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project. If yes, describe if a written request for Section 408 has been submitted. LOP decisions for activities that require Section 408 permission must be rendered concurrent with or following the final Section 408 permission decision and will be processed consistent with existing Corps policy (e.g., EC-1165-2-220), including the District's procedures for integrating Regulatory and Section 408 programs, as applicable.

REVIEW AND DECISION:

1. The District will review each application package to determine if it is complete within 15 calendar days of receipt. If the application is not complete, the District will notify the project proponent within 30 calendar days of the information that is missing.

2. When the District determines an application is complete, but the activity cannot be authorized by a LOP, the District will notify the project proponent within 15 calendar days of the determination with guidance on a potential alternate permit type (general permit or standard permit) and the application will be withdrawn.

3. If at any time during the process the District determines the activity does not meet the requirements for authorization under a LOP, the District will immediately notify the applicant, terminate the LOP process, and proceed to an alternate permitting process. Reasons for terminating the LOP process include the potential for the proposed activity to result in significant impacts on the human environment, non-compliance with USEPA's 404(b)(1) Guidelines, public interest, appreciable opposition, or controversy.

4. If the application is determined complete and appears to meet the requirements for authorization under a LOP, the District will notify the applicant that the proposed activity is being evaluated for a LOP.

5. The District will notify the applicable state and federal resource and permitting agencies of the proposed application for a LOP by email and request comments within 15 calendar days of receipt of the email notice. The District may extend the comment period at the request of a reviewing agency due to extenuating circumstances, by no more than seven (7) calendar days. Concurrently, the District will initiate consultation(s) as necessary under Section 106 of the NHPA, Section 7 of the ESA, and/or Section 305(b)(2) of the MSA with the appropriate state and federal agencies and/or Tribal governments. Any concerns identified during the notification process with the state and federal review agencies and/or Tribal governments will be resolved before a decision on the LOP application is made.

6. The District will notify the project proponent of any additional information needed to complete its evaluation, including sufficient information to initiate any required consultation(s) under Section 106 of the NHPA, Section 7 of the ESA, and/or Section 305(b)(2) of the MSA. If the project proponent does not respond to the request for additional information within 30 calendar days, the application will be withdrawn.

7. The project proponent must provide a copy of the Section 401 WQC, or waiver thereof, to the District to ensure the activity complies with CWA 401.

8. The project proponent must provide a copy of the individual state CZM consistency concurrence, or evidence of presumed concurrence, to the District to ensure the activity complies with the Coastal Zone Management Act.

9. The District will make a LOP decision within 30 days of completing any necessary consultation or, if no consultation is necessary, within 30 days of the end of the agency comment period. The decision will be based on whether the activity meets the terms of this procedure, complies with USEPA's 404(b)(1) Guidelines and with other applicable laws, and would not be contrary to the public interest. To ensure less than significant effects and compliance with applicable laws, the District may add special conditions to the LOP.

CONTACTS AND ADDITIONAL INFORMATION:

For questions, please contact the appropriate District office below.

U.S. Army Corps of Engineers
Albuquerque District, Regulatory Division
Office: (505) 342-3419
Email: SPA-RD-NM@usace.army.mil
Website: https://www.spa.usace.army.mil/Missions/Regulatory-Program-and-Permits/

U.S. Army Corps of Engineers
Los Angeles District, Regulatory Division
Office: (213) 452-3425
Email: SPLPermitInquiries@usace.army.mil
Website: https://www.spl.usace.army.mil/Missions/Regulatory/

U.S. Army Corps of Engineers
Sacramento District, Regulatory Division
Office: (916) 557-5150
Email: SPKRegulatoryMailbox@usace.army.mil
Website: https://www.spk.usace.army.mil/Missions/Regulatory/

U.S. Army Corps of Engineers
San Francisco District, Regulatory Division
Office: (415) 503-6795
Email: cespn-regulatory-info@usace.army.mil
Website: https://www.spn.usace.army.mil/Missions/Regulatory/

ATTACHMENTS:
Regulatory District Office Map

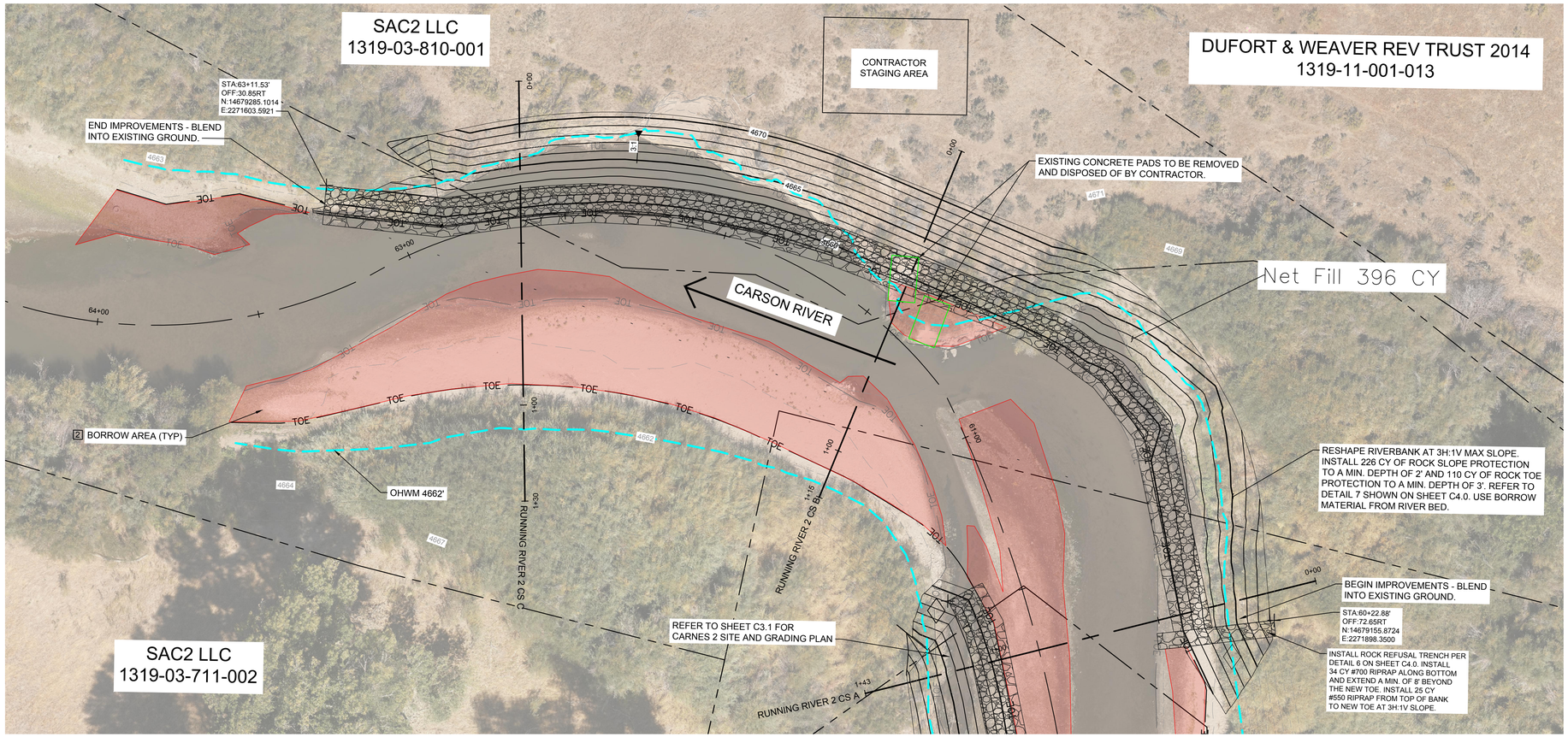
This CWA 404 LOP procedure becomes effective when signed below.

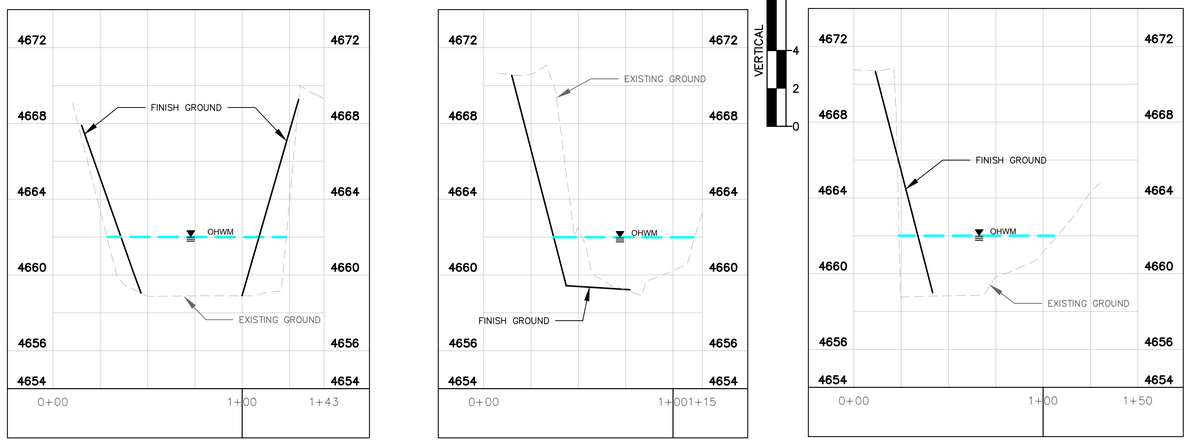
_____ Date: 20 SEP 2024
Kelly E. Allen
Chief, Regulatory Division
Albuquerque District

_____ Date: 20 SEP 2024
Aaron O. Allen, Ph.D.
Acting Chief, Regulatory Division
Los Angeles District

_____ Date: 20 SEP 2024
Michael S. Jewell
Chief, Regulatory Division
Sacramento District

_____ Date: 20 SEP 2024
James C. Mazza
Chief, Regulatory Division
San Francisco District

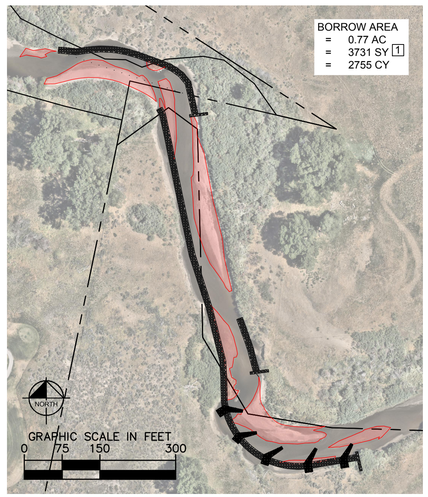




RUNNING RIVER 2 CS A

RUNNING RIVER 2 CS B

RUNNING RIVER 2 CS C



ADDITIONAL BORROW AREAS

CONSTRUCTION NOTES

1. REGRADE FAILED RIVER BANKS BY CUTTING/FILLING AS NEEDED FROM PROPOSED CREST LINE AT THE SLOPE NOTED ON PLANS. USE MATERIAL GENERATED FROM THE CUT AS FILL IN CONJUNCTION WITH ADDITIONAL FILL MATERIAL FROM THE BORROW AREAS AS NECESSARY. SEE RIVER BANK REGRADE DETAIL 3 ON C4.0.
2. INSTALL RIPRAP TOE PROTECTION TO A MIN. DEPTH OF 3' USING CLASS 700 ROCK AND INSTALL RIPRAP ON NEWLY GRADED BANKS TO A MIN. HEIGHT OF 2' USING CLASS 300 RIPRAP.
3. DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED TOE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX. UNDISTURBED GROUND SHALL BE MADE AT 5:1 (MAX.) IN A SMOOTH & WORKMAN-LIKE MANNER.
4. PROTECT EXISTING TREES AND RIPARIAN VEGETATION TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION. REMOVAL OF TREES IN EXCESS OF 6" IN DIAMETER IS PROHIBITED WITHOUT OWNER APPROVAL UNLESS OTHERWISE NOTED.

LEGEND

- ROCK SLOPE PROTECTION AND REFUSAL TRENCH
- ROCK TOE PROTECTION
- BORROW/CUT AREA
- PROPERTY LINES
- TOE — EXISTING TOE OF SLOPE
- TOE — PROPOSED TOE OF SLOPE
- HISTORICAL ORDINARY HIGH WATER MARK (OHWM)
- EXISTING – MINOR CONTOUR – ONE FOOT INTERVAL
- PROPOSED – MAJOR CONTOUR – FIVE FOOT INTERVAL
- PROPOSED – MINOR CONTOUR – ONE FOOT INTERVAL

ESTIMATED QUANTITIES

EARTH WORK: 0.28 AC (±345.33 L.F. AT TOP OF SLOPE)

CUT	=	298 CY
FILL	=	694 CY
NET FILL	=	396 CY

EARTH WORK BELOW OHWM:

CUT	=	57 CY
FILL	=	550 CY
NET FILL	=	493 CY

CLASS 300 ROCK= 226 CY
CLASS 550 ROCK= 25 CY
CLASS 700 ROCK= 144 CY

NOTE:
1. EARTHWORK CALCULATIONS ARE BASED ON SURFACE TO SURFACE, UNADJUSTED ANALYSIS.
2. NO GUARANTEE IS MADE CONCERNING THE ACCURACY OF THE ESTIMATED QUANTITIES. THE CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.
3. THE BORROW AREAS AND ASSOCIATED CUT ARE NOT INCLUDED IN THIS EARTHWORK ESTIMATE.
4. ROCK ESTIMATES ARE BASED ON APPROXIMATE ROCK SLOPE PROTECTION, ROCK TOE PROTECTION, AND ROCK REFUSAL TRENCH VOLUMES.

GENERAL NOTES

1 BORROW AREA AND BORROW VOLUME ARE CUMULATIVE OF RUNNING RIVER 2 AND CARNES 2 SITES. EXCAVATE TO AN AVERAGE DEPTH OF 2.24' TO MAINTAIN A 1:1 CUT AND FILL RATIO ACROSS BOTH SITES. SEE SHEET C3.1 FOR CARNES 2 SITE AND GRADING PLAN.

2 BORROW AREAS ARE APPROXIMATED USING AERIAL IMAGERY FROM JULY 2025. THE CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

No.	REVISIONS	DATE	BY

Kimley»Horn
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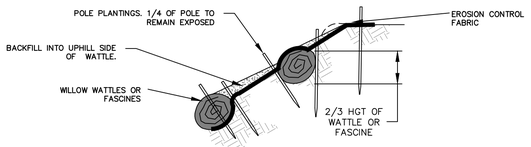
PROFESSIONAL ENGINEER • STATE OF NEVADA
NAGASEKHAR R. GORLA
Registered Engineer
Exp: 06/30/27
CIVIL
No. 18557

KHA PROJECT 192407100
DATE 8/15/2025
SCALE: AS SHOWN
DESIGNED BY: SG
DRAWN BY: HR
CHECKED BY: SG

RUNNING RIVER 2 SITE AND GRADING PLAN

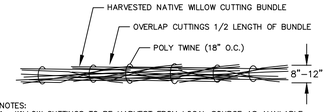
GENOA PHASE IV 2025
CARSON RIVER RESTORATION PROJECTS
GENOA, NEVADA

SHEET NUMBER
C3.0



1 WILLOW WATTLES, FABRIC, AND POLE PLANTINGS

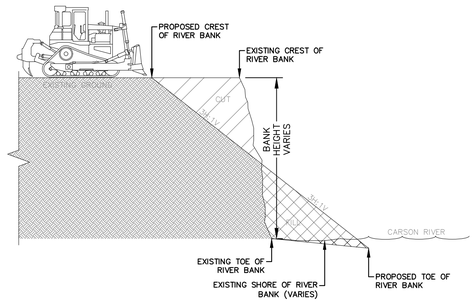
NOT TO SCALE



NOTES:
1. WILLOW CUTTINGS TO BE HARVEST FROM LOCAL SOURCE AS AVAILABLE.
2. CLEANLY DETACH WILLOW CUTTING MATERIAL 1' FROM EXISTING GROUND AT THE PLANT BASE. REMOVE SIDE AND TERMINAL BRANCHES. ASSURE NO BARK DAMAGE OCCURS TO REMAINING WILLOW BASE. PRESERVE AND PROTECT BASE IN PLACE.
3. SECURE WILLOW BUNDLE WITH 2 POLY TWINE PIECES PER BUNDLE.
4. PROTECT HARVEST SITE FROM PERMANENT DISTURBANCE. UPON COMPLETION OF HARVEST ACTIVITY, RESTORE SITE TO NATIVE CONDITIONS.
5. SOAK WILLOW CUTTINGS FOR 5–7 DAYS, BEFORE ROOTS BEGIN TO EMERGE FROM CUTTING.
6. ALTERNATE DIRECTION OF WILLOW BUNDLE TO PRODUCE AN EVEN WIDTH AT THE OVERLAP LOCATION.

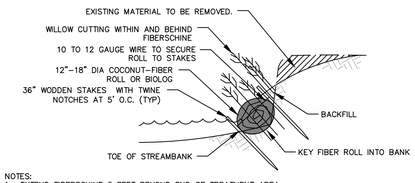
2 WILLOW WATTLES DETAIL

NOT TO SCALE



3 RIVER BANK REGRADE SECTION

NOT TO SCALE



NOTES:
1. EXTEND FIBERSCHINE 5 FEET BEYOND END OF TREATMENT AREA.
2. WILLOW CUTTINGS TO BE HARVEST FROM LOCAL SOURCE AS AVAILABLE.
3. CLEANLY DETACH WILLOW CUTTING MATERIAL 1' FROM EXISTING GROUND AT THE PLANT BASE. REMOVE SIDE AND TERMINAL BRANCHES. ASSURE NO BARK DAMAGE OCCURS TO REMAINING WILLOW BASE. PRESERVE AND PROTECT BASE IN PLACE.
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5. SOAK WILLOW CUTTINGS FOR 5–7 DAYS, BEFORE ROOTS BEGIN TO EMERGE FROM CUTTING.

4 FIBERSCHINES WITH WILLOW CUTTINGS DETAIL

NOT TO SCALE

TABLE 200.07.04–1

Percentage by Mass Passing Sieve	Sieve Size (inches)					
	Class 150	Class 300	Class 400	Class 550	Class 700	Class 900
100	10	20	30	40	48	60
70 - 85	9	18	27	36	45	54
30 - 50	6	12	18	24	30	36
5 - 15	2	5	7	12	18	24
0	1	2	3	6	8	12
D50(1)	6	12	16	22	28	35

1. MEAN STONE SIZE.

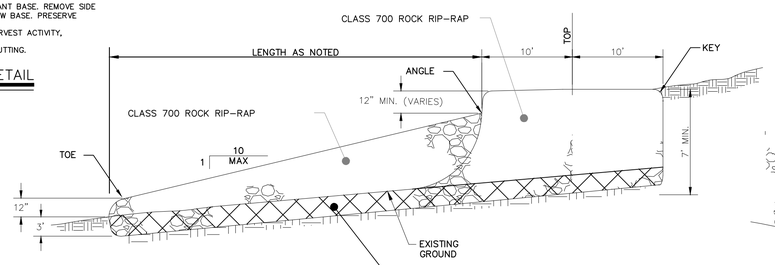
TABLE 200.07.04–2

Test	Test Method	Requirements
Resistance to Wear (percent)	ASTM C 535 (1)	45 Maximum
Absorption (percent)	ASTM C 127	4.2 Maximum
Apparent Specific Gravity	ASTM C 97	2.5 Minimum (2)
Durability	ASTM D 3744	52 Minimum

1. 500 REVOLUTIONS
2. RIP–RAP WITH A SPECIFIC GRAVITY OF LESS THAN 2.5 WILL NOT BE ALLOWED.
3. RIP–RAP SHALL BE QUARRIED WITH FRACTURED FACES.
4. RIP–RAP SHALL HAVE AN EARTH TONE WHICH BLENDS WITH SURROUNDING ENVIRONMENT.

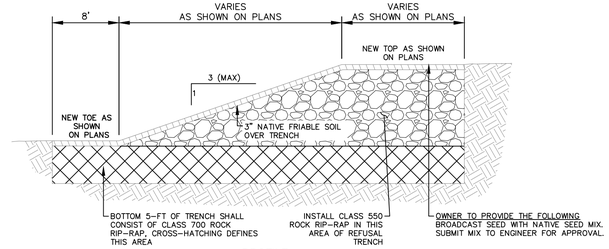
5 ROCK RIP–RAP SPECIFICATIONS

NO SCALE



8 STREAM BARB DETAIL

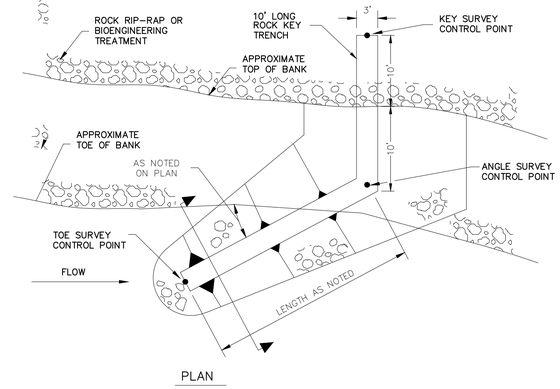
NO SCALE

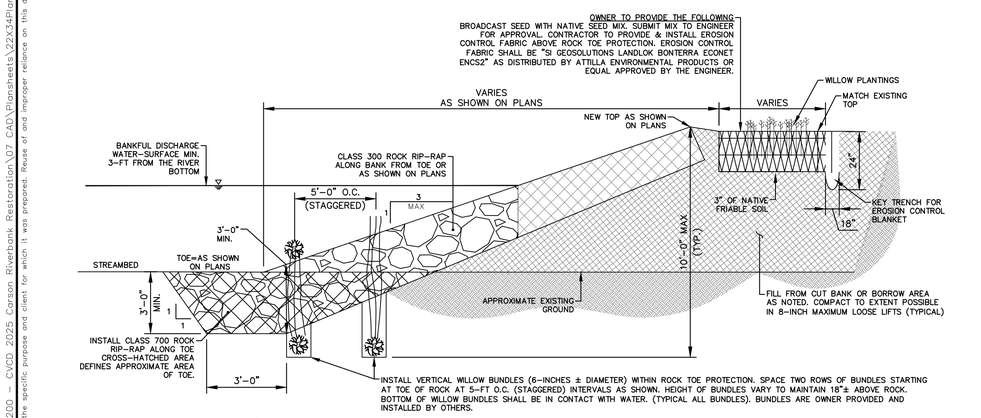


NOTES:
1. FOR RIP–RAP SIZE SEE ROCK RIP–RAP SPECIFICATION HEREON.

6 ROCK REFUSAL TRENCH

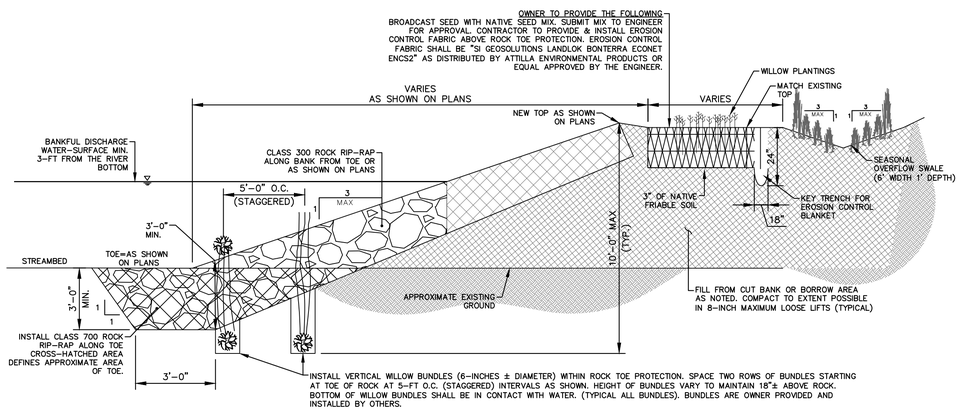
NO SCALE





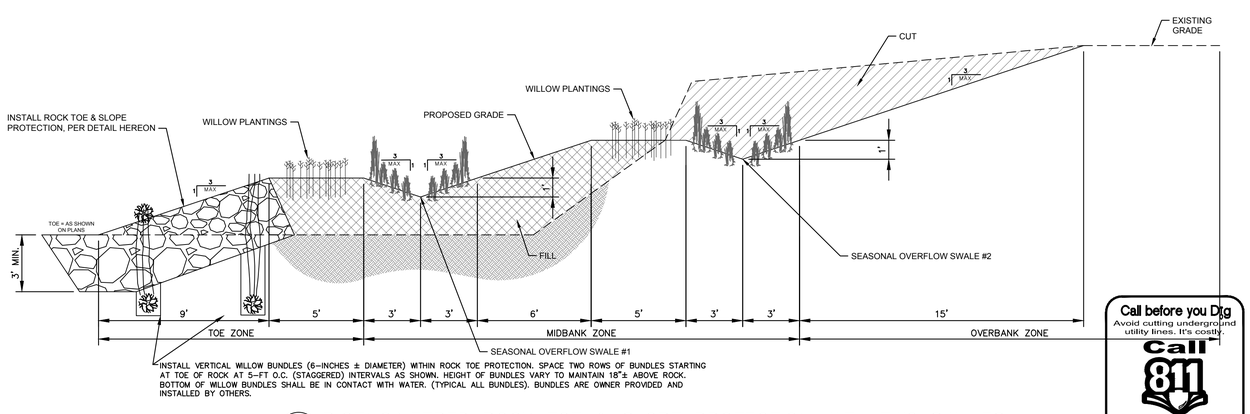
7 BIOENGINEERED ROCK TOE & SLOPE PROTECTION

NO SCALE



9 BIOENGINEERED ROCK TOE & SLOPE PROTECTION WITH TOP OF BANK SWALE

NO SCALE



10 BIOENGINEERED ROCK TOE & SLOPE PROTECTION WITH TWO SWALES

NO SCALE

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

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DETAILS

GENOA PHASE IV 2025
CARSON RIVER
RESTORATION PROJECTS
GENOA, NEVADA

SHEET NUMBER
C4.0

GENERAL DE-WATERING & TEMPORARY EROSION CONTROL PLAN NOTES

1. PLAN SHOWN IS GENERIC & WILL REQUIRE ADJUSTMENT IN FIELD BY CONTRACTOR.
2. PLAN ASSUMES WORK IS CONDUCTED AT EXTREMELY LOW FLOW CONDITIONS.
3. CONTRACTOR SHALL SATISFY HIMSELF THAT LOCATION WHERE TEMPORARY LOW-FLOW CHANNEL IS CUT WILL ALLOW ENOUGH BORROW AREA TO SATISFY FILL REQUIREMENTS OF PROJECT.
4. LOW-FLOW CHANNEL WILL BE FILLED & RESTORED TO EX. CONDITIONS.
5. IN CASE OF EMERGENCY CALL CARSON VALLEY CONSERVATION DISTRICT (RICH WILKINSON, @ 775-782-3661 X 3830 OR ENGINEER @ 775-787-7552).
6. CONTRACTOR MAY SUBMIT ALTERNATE DE-WATERING & EROSION CONTROL PLAN TO ENGINEER. SUBMITTAL SHALL BE MADE IN ADVANCE OF CONSTRUCTION ACTIVITIES FOR REVIEW & APPROVAL.
7. CONSTRUCTION SHALL BE SCHEDULED TO COINCIDE WITH PERIODS OF LOW FLOW IN THE RIVER.
8. RESTORE AREAS DISTURBED BY DE-WATERING ACTIVITIES TO PRE-CONSTRUCTION CONDITIONS.
9. ANY PASTURE FENCES DAMAGED, FAILING OR RELOCATED FOR CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EXISTING CONDITIONS AT TOP OF BANK.
10. DUST SHALL BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND OWNER.
11. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. TRASH WILL BE HAULED TO A LICENSED DISPOSAL FACILITY. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE.
12. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
13. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES. CONTRACTOR SHALL PROVIDE OWNER WITH THE NAME & PHONE NUMBER OF EMERGENCY CONTACT AT THE PRE-CONSTRUCTION MEETING.
14. AFTER A RAINSTORM, ALL BMP'S AND GRADED SLOPE SURFACE PROTECTION MEASURES SHALL BE INSPECTED TO VERIFY CONTINUED SATISFACTORY OPERATION AND REPAIRED OR REPLACED IF NECESSARY.
15. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.
16. FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
17. BUILT UP SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN PROPER FUNCTIONING OF THE BMP'S
18. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.
19. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORT WILL CONTAIN THE NAME OF THE INSPECTOR, MEASURES, AREAS INSPECTED, OBSERVED CONDITIONS, AND NOTE CHANGES NECESSARY.
20. REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS (IF THEY OCCUR) TO NDEP AND THE OWNER WITHIN 24 HOURS.
21. FILTER FABRIC FENCES. IF THE FABRIC BECOMES CLOGGED, TORN, OR DEGRADES, IT SHOULD BE REPLACED. MAKE SURE THE STAKES ARE SECURELY DRIVEN IN THE GROUND AND ARE IN GOOD SHAPE (IE., NOT BENT, CRACKED, OR SPLINTERED, AND ARE REASONABLY PERPENDICULAR TO THE GROUND.) REPLACE DAMAGED STAKES.
22. SEDIMENT THAT ACCUMULATES IN THE BMP MUST BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN THE SEDIMENT ACCUMULATION REACHES ONE-THIRD OF THE BARRIER HEIGHT. SEDIMENT REMOVED DURING MAINTENANCE MAY BE INCORPORATED INTO EARTHWORK ON THE SITE OR DISPOSED AT AN APPROPRIATE LOCATION.
23. NO DE-WATERING UNTIL FLOWS EXCEED 400 CFS AS READ AT THE CARSON CITY GAUGE.

GENERAL NOTES:

1. SOME TYPES OF FILTER FABRIC FENCE HAVE STAKES INCLUDED AND DO NOT REQUIRE THE MATERIALS LISTED.
2. THE FABRIC SHOULD NOT EXCEED MORE THAN 3' ABOVE THE GROUND. CUT FILTER FABRIC FROM A CONTINUOUS ROLL TO AVOID HAVING JOINTS. WHERE JOINTS ARE NECESSARY, SPLICE THE FABRIC ONLY AT A POST, WITH AT LEAST 6" OF OVERLAP, AND FASTEN BOTH ENDS SECURELY TO THE POST.
3. INSPECT PERIODICALLY AND AFTER EACH STORM. REPLACE DAMAGED FENCE.
4. CLEAN OUT THE SEDIMENT BEFORE IT REACHES 1/3 FENCE HEIGHT. DEPOSIT THE SEDIMENT WHERE IT WILL NOT ENTER A DRAINAGEWAY.

SILT FENCE INSTALLATION INSTRUCTIONS:

1. SPACE POSTS NO MORE THAN 10' APART AND DRIVE THEM AT LEAST 1' INTO THE GROUND. ALIGN THE FENCE ALONG THE SLOPE CONTOUR, CURVING IT SLIGHTLY UPHILL TO AVOID END RUNS.
2. DIG A 4"X4" TRENCH ALONG THE UPHILL SIDE OF THE POSTS.
3. FASTEN WIRE MESH TO UPHILL SIDE OF POST WITH STAPES (ON WOOD POSTS) OR WIRE (ON STEEL POSTS). EXTEND MESH TO BOTTOM OF TRENCH. (DO NOT ATTACH MESH OR FABRIC TO TREES).
4. FASTEN FILTER FABRIC TO UPHILL SIDE OF POSTS WITH STAPES OR WIRE. EXTEND FABRIC 8" INTO TRENCH.
5. BACKFILL TRENCH AND COMPACT THE SOIL.

MATERIALS:

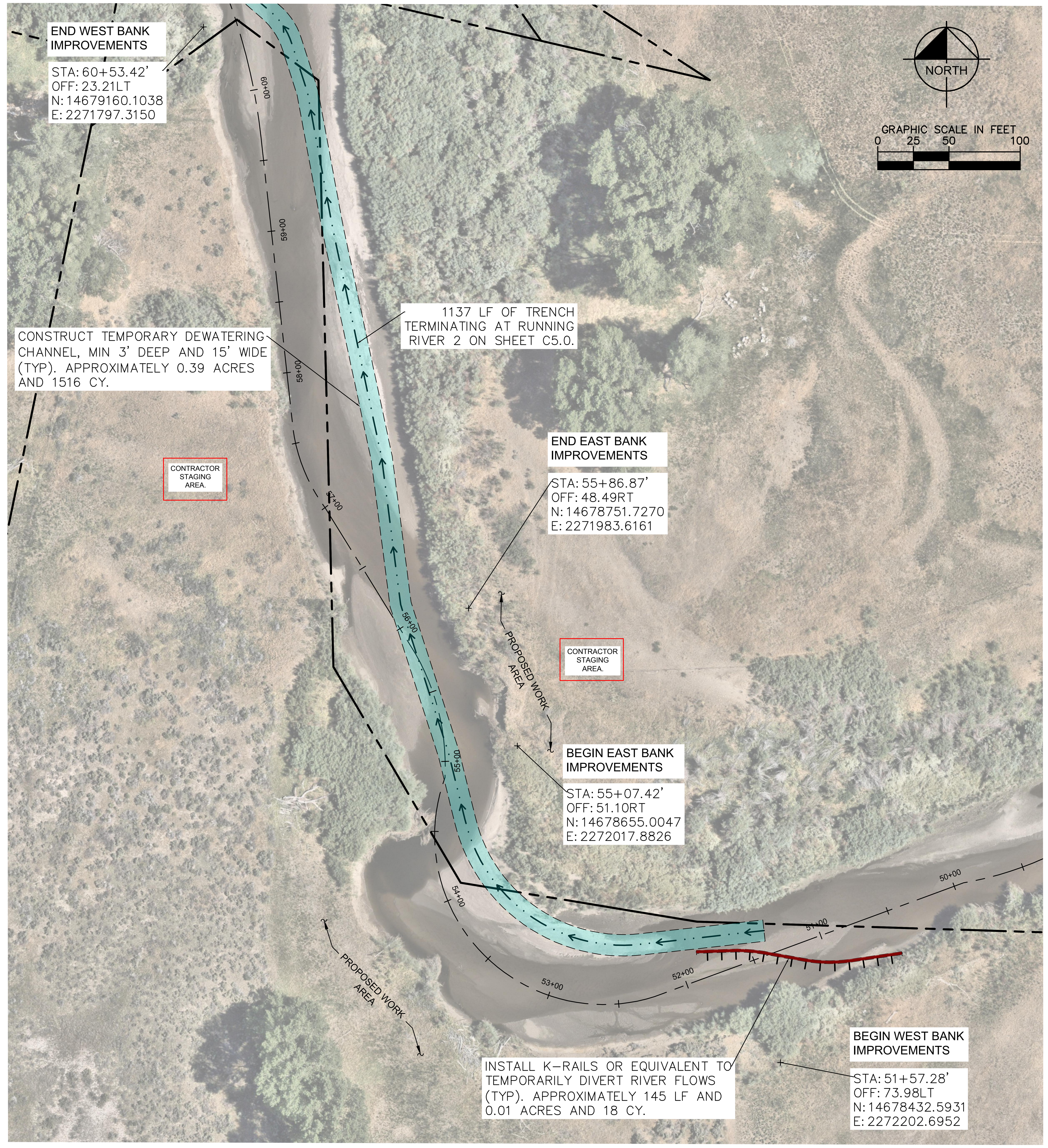
1. SILT FENCE:
   a. FILTER FABRIC SHALL BE 42" WIDE, TENSILE STRENGTH 120 LBS., EQUIVALENT OPENING SIZE 70.
   b. POSTS SHALL BE 5' LONG (MIN.), 4"X4" WOOD OR 1.3 LBS./FT STEEL.
   c. WIRE MESH SHALL BE 42" WIDE, 6" MESH, 16 GAUGE WIRE (MINIMUM).
   d. STAPLES (FOR WOOD POSTS) SHALL BE HEAVY DUTY 1" LONG, 14 GAUGE (MINIMUM).
   e. WIRE (FOR STEEL POSTS).

SPILL PREVENTION AND RESPONSE:

1. CONTRACTOR SHALL STEAM CLEAN ALL EQUIPMENT THAT WILL BE WORKING IN RIVER BED AT SHOP PRIOR TO COMMENCING CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE CHECKED FOR LEAKS AND REPAIRED PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL INSURE INTEGRITY OF SILT FENCE AND STRAW BALE BARRIERS DURING THE COURSE OF CONSTRUCTION.
4. CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT MATS DURING FUELING AND MAINTENANCE TO PROTECT AGAINST SPILLS.
5. SPILLED PETROLEUM PRODUCTS, CONTAMINATED SOILS OR WATER, AND ACCUMULATED SEDIMENTS SHALL BE CLEANED UP AND PROPERLY DISPOSED OF AT A LICENSED LANDFILL. DISCHARGE OF SUCH MATERIALS TO THE RIVER CHANNEL OR DITCHES IS PROHIBITED.

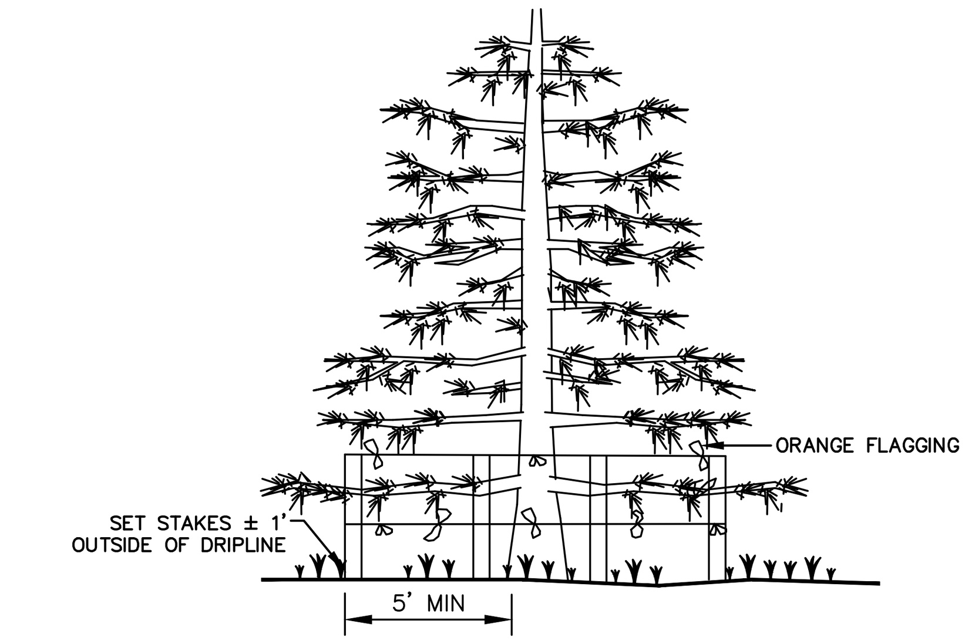
REVEGETATION:

1. ALL DISTURBED AREAS, CUT & FILL SLOPES SHALL BE RE-SEEDED. THE SEED MIX, APPLICATION RATE ETC. SHALL BE SPECIFIED BY THE CVCD.
2. REVEGETATED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION & ACCEPTANCE SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS & INSTALLATION REQUIREMENTS. FOR ONE FULL GROWING SEASON AFTER PLANTING, CONTRACTOR SHALL GUARANTEE 30% COVERAGE BY SEEDED SPECIES & MULCH SUCH THAT THERE IS NO SIGNIFICANT EVIDENCE OF RILLS, GULLIES OR OTHER EVIDENCE OF EROSION. IF ADEQUATE COVERAGE IS NOT ACHIEVED, THE CONTRACTOR SHALL RE-SOIL AMEND, RE-SEED OR RE-MULCH. THE ENGINEER, UPON CONTRACTOR'S REQUEST, WILL MAKE FINAL INSPECTION & ACCEPTANCE ONE FULL YEAR FOLLOWING COMPLETION OF SEEDING(THE MAINTENANCE PERIOD). PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE.



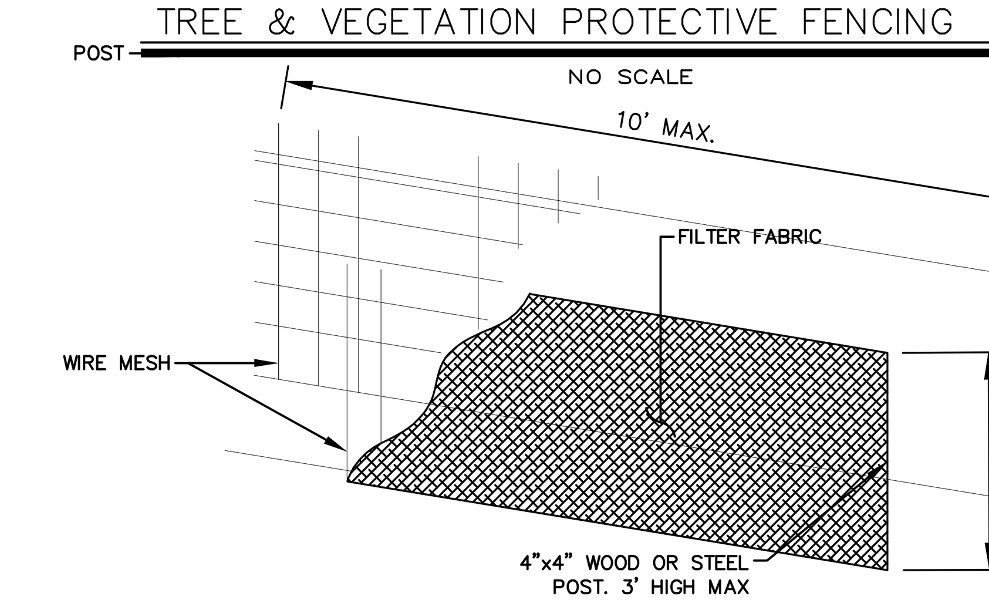
CARNES 2 SITE

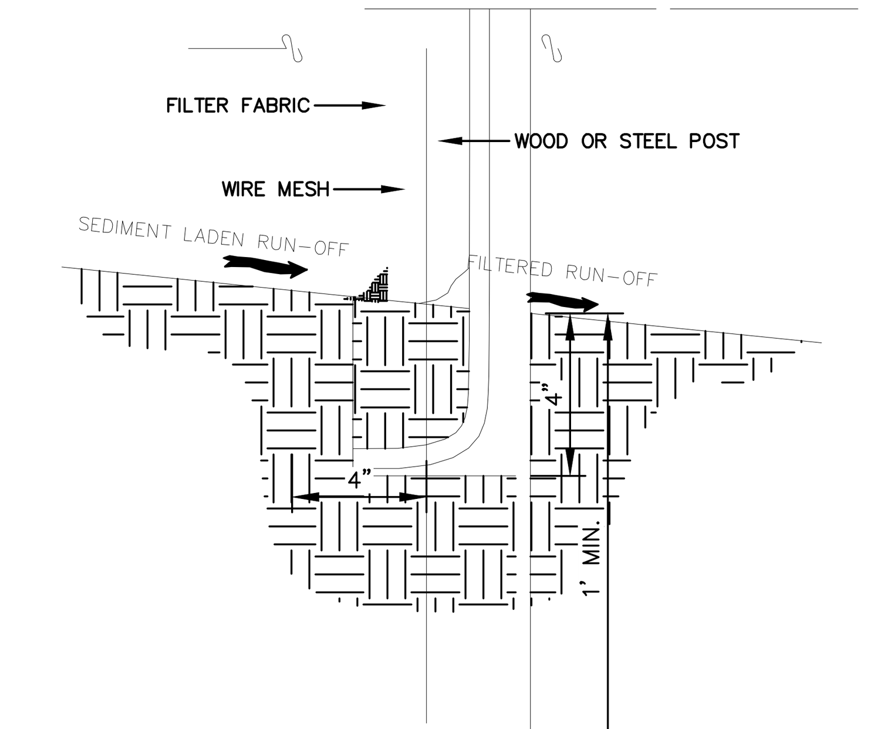
*DEWATERING PLANS ARE SUBJECT TO CHANGE BASED ON CONTRACTOR SCHEDULING AND CONSTRUCTION SEQUENCING.



TREE & VEGETATION PROTECTIVE FENCING

NO SCALE





SILT FENCE

NO SCALE

LEGEND

- TEMPORARY DIVERSION CHANNEL
- K-RAIL
- —SF— SILT FENCE

ESTIMATED QUANTITIES

DEWATERING FOOTPRINT: 1.17 AC
TEMPORARY DEWATERING CHANNEL: 1137 LF
K-RAILS: 145 LF

NOTE:
1. CALCULATIONS ARE BASED ON SURFACE TO SURFACE, UNADJUSTED ANALYSIS.
2. NO GUARANTEE IS MADE CONCERNING THE ACCURACY OF THE ESTIMATED QUANTITIES. THE CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.
3. ESTIMATED QUANTITIES ARE CUMULATIVE OF RUNNING RIVER 2 AND CARNES 2 DUE TO SHARED DEWATERING CHANNEL.

No.	REVISIONS	DATE	BY

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CARNES 2 DEWATERING & TEMPORARY EROSION CONTROL PLAN

GENOA PHASE IV 2025
CARSON RIVER
RESTORATION PROJECTS
GENOA, NEVADA

SHEET NUMBER
C5.1

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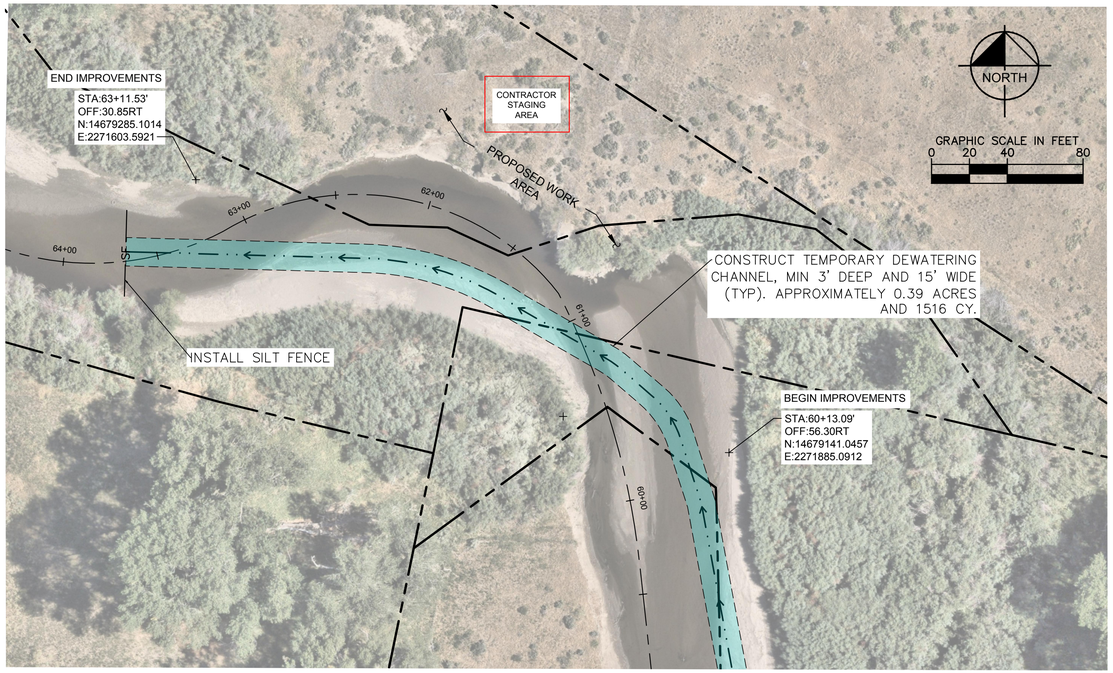
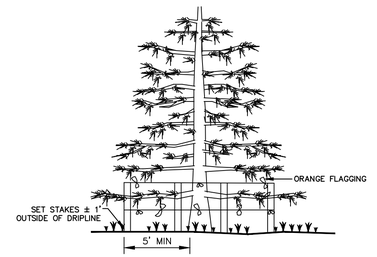
1. CONTRACTOR SHALL STEAM CLEAN ALL EQUIPMENT THAT WILL BE WORKING IN RIVER BED AT SHOP PRIOR TO COMMENCING CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE CHECKED FOR LEAKS AND REPAIRED PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL INSURE INTEGRITY OF SILT FENCE AND STRAW BALE BARRIERS DURING THE COURSE OF CONSTRUCTION.
4. CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT MATS DURING FUELING AND MAINTENANCE TO PROTECT AGAINST SPILLS.
5. SPILLED PETROLEUM PRODUCTS, CONTAMINATED SOILS OR WATER, AND ACCUMULATED SEDIMENTS SHALL BE CLEANED UP AND PROPERLY DISPOSED OF AT A LICENSED LANDFILL. DISCHARGE OF SUCH MATERIALS TO THE RIVER CHANNEL OR DITCHES IS PROHIBITED.

REVEGETATION:

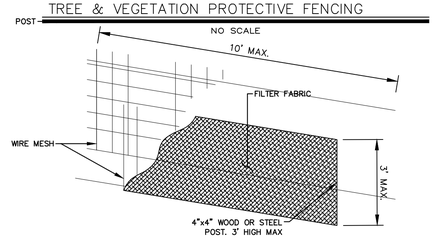
1. ALL DISTURBED AREAS, CUT & FILL SLOPES SHALL BE RE-SEEDED. THE SEED MIX, APPLICATION RATE ETC. SHALL BE SPECIFIED BY THE CVCD.
2. REVEGETATED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION & ACCEPTANCE SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS & INSTALLATION REQUIREMENTS. FOR ONE FULL GROWING SEASON AFTER PLANTING, CONTRACTOR SHALL GUARANTEE 30% COVERAGE BY SEEDED SPECIES & MULCH SUCH THAT THERE IS NO SIGNIFICANT EVIDENCE OF RILLS, GULLIES OR OTHER EVIDENCE OF EROSION. IF ADEQUATE COVERAGE IS NOT ACHIEVED, THE CONTRACTOR SHALL RE-SOIL AMEND, RE-SEED OR RE-MULCH. THE ENGINEER, UPON CONTRACTOR'S REQUEST, WILL MAKE FINAL INSPECTION & ACCEPTANCE ONE FULL YEAR FOLLOWING COMPLETION OF SEEDING(THE MAINTENANCE PERIOD). PROVIDE NOTIFICATION AT LEAST TO WORKING DAYS BEFORE REQUESTED INSPECTION DATE.

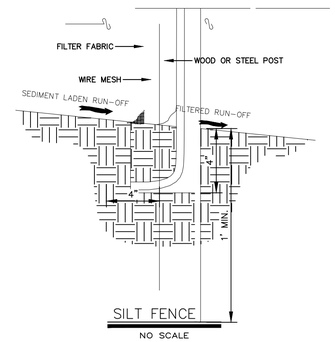


RUNNING RIVER 2 SITE



TREE & VEGETATION PROTECTIVE FENCING





SILT FENCE
NO SCALE

LEGEND

- TEMPORARY DIVERSION CHANNEL
- K-RAIL
- SF — SILT FENCE

ESTIMATED QUANTITIES

DEWATERING FOOTPRINT: 1.17 AC
TEMPORARY DEWATERING CHANNEL: 1137 LF
K-RAILS: 145 LF

NOTE:
1. CALCULATIONS ARE BASED ON SURFACE TO SURFACE, UNADJUSTED ANALYSIS.
2. NO GUARANTEE IS MADE CONCERNING THE ACCURACY OF THE ESTIMATED QUANTITIES. THE CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.
3. ESTIMATED QUANTITIES ARE CUMULATIVE OF RUNNING RIVER 2 AND CARNES 2 DUE TO SHARED DEWATERING CHANNEL.

*DEWATERING PLANS ARE SUBJECT TO CHANGE BASED ON CONTRACTOR SCHEDULING AND CONSTRUCTION SEQUENCING.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

No.	REVISIONS	DATE	BY

Kimley»Horn

7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-453-6972
WWW.KIMLEY-HORN.COM

PROFESSIONAL ENGINEER · STATE OF NEVADA
NAGASEKHAR R. GORLA
Exp: 06/30/25
CIVIL
No. 18557

KHA PROJECT	192407100
DATE	8/15/2025
SCALE:	AS SHOWN
DESIGNED BY:	SG
DRAWN BY:	HR
CHECKED BY:	SG

RUNNING RIVER 2 DEWATERING & TEMPORARY EROSION CONTROL PLAN

GENOA PHASE IV 2025 CARSON RIVER RESTORATION PROJECTS

GENOA, NEVADA

SHEET NUMBER
C5.2