

DEPARTMENT OF THE ARMY PERMIT

Permittee: General Public **Expiration Date:** April 1, 2008

Permit Number: GP-037, 200275190

Issuing Office: U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below. **You must notify the Corps of Engineers, Sacramento District (in writing) and receive verification of approval from the Corps of Engineers, Sacramento District PRIOR to beginning work authorized by this permit. Notification and approval procedures are described in the public notice covering this permit.**

Project Description: This Regional General Permit authorizes certain discharges of dredged and fill material for stream bank and stream bed stabilization work as described below:

RIPRAP: Riprap is material placed along an eroding bank to armor it and reduce erosion. Riprap material must be durable angular rock or broken concrete free from large quantities of organic material and erodible material such as dirt and gravel. The size of broken concrete pieces shall not be smaller than 12 inches or larger than 48 inches in any dimension. Pre-cast concrete blocks may be used as riprap contingent upon case-by-case approval by the Corps of Engineers. Rounded river cobble or stone, used as riprap, is **not** acceptable as riprap and is **not** authorized under this permit. Properly anchored trees and logs may be used in combination with large rock riprap. Proper anchoring of trees and logs is especially important because floatable materials can dislodge and move with currents potentially causing downstream erosion and blockages. Rock-filled gabion baskets or cages may be approved under this permit in limited situations. Gabions are not generally effective in high velocity streams, streams with large bedloads, or streams where the water chemistry is deleterious to the gabion mesh.

The placement of riprap is authorized provided:

1. A single and complete bank riprapping activity is less than 1000 feet in length along a stream bank;
2. The riprapping is limited to an average of two cubic yards or less of material per running foot placed below the plane of the ordinary high water mark of the stream. This permit is intended for protecting existing bank lines and does **not** necessarily authorize total restoration of original bank lines;

3. The size of the riprap shall be large enough to withstand expected high flow velocities and turbulence to prevent the riprap from dislodging. If waste concrete pieces are used, all exposed rebar or other degradable substances shall be removed prior to placement. Concrete shall be broken into pieces prior to placement to prevent slabs from being carried away by high flows;

4. The maximum slope steepness for riprap installation should be one foot vertical for two feet horizontal. On a case by case basis, in the interest of secondarily creating better trout habitat with overhanging banks, the Corps of Engineers may approve riprap installation which exceeds the specified maximum slope steepness;

5. Use of a filter between the bank revetment and soil may be necessary to prevent the soil from moving through the revetment, to prevent the revetment from sinking into the soil, and/or to permit natural seepage from the stream bank, thus preventing build-up of excessive groundwater pressure. A filter may be composed of fabric, sand, gravel, or graded rock. If a filter is used, you should seek technical assistance to ensure that the filter will be properly matched with the riprap blanket and the soil;

6. The upstream and downstream ends of the riprap blanket should be keyed or tied into the bank to prevent stream currents from unravelling the riprap. All riprap should be terminated at or below the top of bank to avoid creating levees which restrict the floodplain; and

7. Establishing a vegetative cover on disturbed surfaces by seeding, transplanting, or other appropriate means is very important, highly recommended and may, in some instances, be required by the Corps of Engineers. Herbaceous and woody vegetation landward of the riprap and interspersed within the riprap will improve the stability of the bank protection.

DROP STRUCTURES: A drop structure is a group of rocks, boulders and/or logs placed in a stream to act as a very low level dam. Placement of a drop structure will raise the stream bed elevation, decrease the stream gradient immediately upstream, cause deposition upstream of the drop, dissipate stream energy, decrease current velocity, and reduce stream bank erosion while promoting stream bed stability.

The placement of drop structures is authorized provided:

1. Drop structures shall be constructed so that the maximum change (increase) in the ordinary low water surface elevation upstream of the drop does **not** exceed 2 feet above the ordinary low water surface elevation immediately downstream of the drop. The majority of drop structures employed in western Colorado would not need to exceed 2 feet in height above the pre-construction stream bottom elevation to promote stream bank and stream bed stability. There should be at least one area near the center of a drop structure where fish may pass over the structure with 18 inches or less of drop and an adequate acceleration pool;

2. Materials acceptable for drop structure construction include large boulders, large angular stone or rock, logs, or a combination of the preceding. **CAUTION:** Logs can be more susceptible to damage from high flows and may need more frequent maintenance;

3. Material size shall be large enough to withstand expected high flow velocities and associated turbulence;

4. Drop structures shall be constructed in an inverted "V" formation with the apex of the "V" directed upstream or at an angle to the current which will direct overtopping flows to the middle of the stream, and not against adjacent stream banks.

5. All drop structures shall be tied or keyed into the existing banks and protected by large rock anchored several feet into the bank. **NOTE:** Protecting the flanks of the structure is critical to prevent extensive damage from high flows;

6. Construction equipment should access the stream at the fewest possible locations immediately upstream of the proposed work site to minimize disturbance to the aquatic environment;

7. Construction or placement of rock for a drop structure should start at both banks and proceed toward the middle of the stream. A backhoe or front-end loader, preferably with an opposing "thumb" on the bucket to manipulate the rocks, is best for constructing drop structures. Rocks placed at the bank should not extend above the bankfull elevation of the stream;

8. Due to the varied widths of streams wherein a drop structure may be useful in stabilizing stream banks and stream beds, a specific limitation on the volume of discharged material is not being employed;

9. As a precaution to recreational boaters and rafters, a sign(s) should be placed upstream of a drop structure, or series of structures, to give ample warning of the structure's presence. The center portion of a drop should be lower to concentrate flows and facilitate boat passage. The structure should not impede or block boat passage; and

10. Typical drop structures may **not** be approved for certain stream types.

JETTIES: Jetties are structures placed along a stream bank to direct flow away from an eroding bank. Jetties may also be used to direct flow toward an instream sand/gravel bar or shoal to cause it to scour. Acceptable materials for jetties include large angular rock, large boulders, large concrete chunks without protruding rebar, and logs or trees alone or in combination with the preceding fill materials. Generally, jetties are **not** effective on curves having a radius of less than 200 feet and a single jetty is usually not sufficient. River cobble, sand, gravel and other similar erodible materials are **not** acceptable for jetties.

This permit authorizes jetties provided:

1. The maximum extension of any jetty into a waterway shall not exceed 25% of the channel width. Flows shall **not** be directed to erode the opposite bank of the waterway;

2. Jetties shall be spaced along the bank to prevent scouring or scalloping of the bank between the structures;

3. The angle of the jetty and the bankline should **not** be greater than 30 degrees. Most often, the angle should be only 15-20 degrees to avoid excessive maintenance requirements;

4. Jetties may be triangular or linear (single-wing) in shape. Single wing jetties may only be directed upstream. **CAUTION:** Single-wing jetties may be more susceptible to damage from high flows and require more frequent maintenance than triangular ones;

5. Construction materials must be of sufficient size to withstand expected high velocities and turbulence. Rounded river cobble and stone, and dirt fill are not suitable for jetties. If broken concrete pieces are utilized for construction, the concrete pieces shall not be smaller than 12 inches or larger than 48 inches in any dimension, and any protruding rebar or reinforcement material must be cut-off flush with the surface of the concrete;

6. Jetties must be securely anchored into the bank for several feet to protect against undercutting and circumvention of the structure by high flows;

7. Trees for jetty construction should not be obtained from a riparian or wetland source, if practicable (**see Special Condition No. 2**). Proper anchoring of trees and logs is especially important. If unravelled, these materials can cause serious downstream erosion damage; and

8. The length of stream bank, where jetties will be built, must not exceed 1000 feet as measured from the first to last jetty.

All work will be completed in accordance with the plan(s) approved by the Corps of Engineers, Sacramento District.

Project Location: "Waters of the United States" in western Colorado which are within the boundaries of the Sacramento District. The eastern boundary of the Sacramento District in Colorado is the Continental Divide.

PERMIT CONDITIONS:

Special Conditions:

1. Material may not be placed in any wetlands, or in any location or manner which will impair surface water flows into or out of any wetlands. Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, wet meadows, willow/alder thickets, and similar areas. Some of the typical plants found in wetlands are sedges, rushes, bulrushes, cattails, alders and willows.

2. Destruction of riparian or riverine vegetation, especially mature cottonwoods, shall be avoided to the maximum extent practicable. The permittee is cautioned that cottonwoods may be locally very important for bald eagles which are protected by the Endangered Species Act (refer to special condition number 5 below). When work authorized by this permit causes damage to riparian vegetation that is not directed covered by a permanent feature, these scarred areas shall be replanted with a mixture of native trees, shrubs, forbs and grasses. Seeding, sprigging, or other means of planting native woody and herbaceous plants is highly recommended and advantageous to further stabilize stream banks. For further information on planting, contact your local Natural Resources Conservation Service office or the Corps of Engineers.

3. This permit does not authorize discharges of dredged or fill material as associated with channelization, ditching, mechanized land clearing, cutting off meanders, or blocking off channels.

4. Activities associated with stream bed stabilization shall not block river systems used for navigation, including rafting and canoeing, or create a hazard to navigation in such streams. An activity may not cause more than a minimal adverse effect on navigation.

5. Any activity authorized under this permit shall not jeopardize the continued existence of a threatened or endangered species, or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which is likely to destroy or adversely modify the critical habitat of such species.

As appropriate, the Corps of Engineers will consult with the U.S. Fish and Wildlife Service on specific requests to perform work under this permit if the project may affect a threatened or endangered species, or critical habitat. For example, the following rivers in western Colorado are occupied habitat for several fish species protected by the ESA:

- a. **Yampa River** from the Green River confluence to Hayden, Colorado at the confluence of Dry Creek;
- b. **Green River** in the extreme northwestern corner of Colorado;
- c. **White River** from the Utah state line to Meeker, Colorado at the State Highway 13 bridge;
- d. **Colorado River** from the Utah state line to Rifle, Colorado at the State Highway 13 bridge;
- e. **Gunnison River** from the Colorado River confluence to the Hartland Diversion Dam;
- f. **Little Snake River** in Colorado west of Baggs, Wyoming;
- g. **San Juan River** in the extreme southwestern corner of Colorado; and
- h. **Lower 0.5 mile of all adjacent tributaries** of the above seven river reaches.

Consultation may conclude with the identification of conservation recommendations by the U.S. Fish and Wildlife Service in a non-jeopardy Biological Opinion. At the discretion of the Corps of Engineers, these recommendations will be incorporated into an approval. The Corps of Engineers, Sacramento District will enforce compliance with accepted recommendations. If the U.S. Fish and Wildlife Service renders a jeopardy Biological Opinion and its identified reasonable and prudent alternative(s) can not be implemented, the project will require an individual Department of the Army permit. Authorization of an activity under this permit does **not** authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service, both lethal and non-lethal "takes" of protected species are in violation of the ESA.

6. Any dredged or fill material shall not consist of unsuitable material [e.g., trash, debris, waste metal products, bituminous concrete (asphalt), car bodies, etc.] and must be free from toxic pollutants in toxic amounts.

7. All instream work should generally be performed during low water periods and the use of heavy equipment in stream beds, especially in live or flowing water, should be minimized. However, brown trout, *Salmo trutta*, begin spawning activity as early as mid-September when the hydrograph is generally receding. Depending on the location of a project, care must be taken so that low flow work does not adversely impact natural recruitment of wild trout.

8. Any discharges of dredged or fill material shall not occur in close proximity of a public water supply intake, should not limit the ability of any existing diversion structure to appropriate water, and should not adversely impact a stream gaging station.

9. Activities occurring 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, is not authorized by this permit.

10. An activity may not impair reserved tribal rights including, but not limited to, reserved water rights and treaty fishing and hunting rights.

11. An activity may not substantially disrupt the movement of those species of aquatic life indigenous to a water body, including those species which normally migrate through the area.

12. An activity in breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

General Conditions:

1. Upon receiving approval to perform work under this permit, you will have **three years** to complete the work, unless specified otherwise in a Corps of Engineers verification letter. If more time is required, you must seek an extension of time from the Corps of Engineers. Your request for an extension of time should be submitted to the Corps of Engineers at least **45 days** prior to the 3-year completion date. Upon completion of the work, you will submit a **signed certification** to the Corps of Engineers that will include:

a. A statement that the authorized work was done in accordance with the Corps of Engineers authorization, including any general or specific conditions;

b. A statement that any required mitigation was done in accordance with the permit conditions; and,

c. The signature of the permittee certifying the completion of the work and mitigation.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain a transfer of this authorization from the Corps of Engineers to new owner.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. In Colorado, excluding Indian lands, the Regional General Permits are unconditionally certified by statute. On Indian lands, you must receive water quality certification from the U.S. Environmental Protection Agency, Region VIII, which may impose conditions in a certification.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity in accordance with:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that a verification based upon this permit is not contrary to the public interest was made in reliance on the information that you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit, or a verification based upon this permit, at any time the circumstances warrant.

Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate.
- c. Significant new information surfaces which this office did not consider before verifying that your project is authorized by this permit.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate.

You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

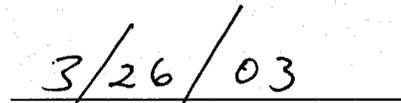
6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of our decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and in behalf of Colonel Michael J. Conrad, Jr., District Engineer



Brooks Carter
Chief, Intermountain Regulatory Section



Date