

Riprap Definition:

- Riprap is rock or other material used to armor shorelines, streambeds, bridge abutments, and other shoreline structures against scour and water or ice erosion. It is made from a variety of rock types, commonly granite or limestone, and concrete rubble from building and paving demolition.

Riprap Material Specifications:

- Riprap material must consist of clean broken concrete, rock, or similar manufactured material of sufficient size and shape to withstand wave action unique to the specific location. †
- Broken concrete riprap requires a pre-installation inspection by CNPPID
 - Broken concrete riprap will be considered on a case-by-case basis and must be free of exposed rebar, wire, wire mesh, asphalt paving material, paint, and other erodible materials. †
 - Broken concrete riprap shall be covered, from the top of the structure down to the expected high water wave/splash line, with a minimum of six inches of soil compacted into the voids to the riprap and immediately seeded with a nurse crop and a mixture of native grass species. †
 - After placement, all protruding reinforcing bar/steel and wire mesh shall be removed from the surface of broken concrete riprap. †
 - Construction debris (i.e., lath, plaster, asphalt, scrap iron, etc.) is not allowed to be mixed in with the broken concrete riprap. †

Riprap Size and Shape:

- Riprap must range in size, in any dimension, from six inches (6") to thirty-six inches (36"). †
- No more than ten percent (10%) of the riprap shall have a single dimension less than six inches (6"). †
- The quantity of small pieces shall be kept as low as possible, sufficient only to fill the voids between larger pieces, with care taken to ensure that the smaller material is well distributed throughout the mass and not allowed to segregate or form zones of inadequate protection. †
- Riprap shall be angular in shape to allow interlocking between the various rock sizes, and on average, be large enough to be immovable by anticipated waves. †
- Slabs of riprap are not allowed.
 - No riprap piece's largest dimension may be greater than 3.5 times the smallest dimension. ††

Riprap Placement:

- Riprap shall be placed in a manner so that the exposed surface is placed at a slope of one-foot vertical for every one-foot horizontal (1V:1H) or less. Less steep slopes, ranging to one-foot vertical for every three feet horizontal (1V:3H), may be required if determined by Central or if past slopes of higher degrees have been attempted and failed. †
- Riprap shall be permanently stabilized at the earliest practicable date. †
- Riprap shall be placed so that it is interlocking. †
- Riprap may not be pushed along a lakebed. It must be picked up and placed in or near its intended final location.

Riprap Quantity Limitations:

- Riprap and fill material for the construction of revetments and bulkheads shall not exceed one cubic yard per linear foot below the ordinary high water mark. †

Maintenance of Riprap Protected Shorelines – Contact Central

- Major Repair‡
 - The repair or the replacement of more than twenty-five percent of a facility or its value, as determined by Central. ‡
 - Such repair or replacement is treated as new or replacement construction, and the entire facility is subject to the requirements of these Permitting Procedures, regardless of whether or not such repair or replacement is necessitated by dilapidation, loss, damage, or otherwise. ‡

† NE 1999-22004 Programmatic General Permit 99-04 Amendment #4

‡ CNPPID Permitting Procedures or ECS, SWAF, and Fish Acceptable and Prohibited Materials List

†† USACE Prohibited / Restricted Materials Fact Sheet

DEPARTMENT OF THE ARMY PERMIT

Permittee: General Public

Permit No.: NE 1999-22004 Programmatic General Permit 99-04 Amendment #4

Issuing Office: WEHRSPANN REGULATORY OFFICE, OMAHA DISTRICT, U.S. CORPS OF ENGINEERS

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.

Project Description:

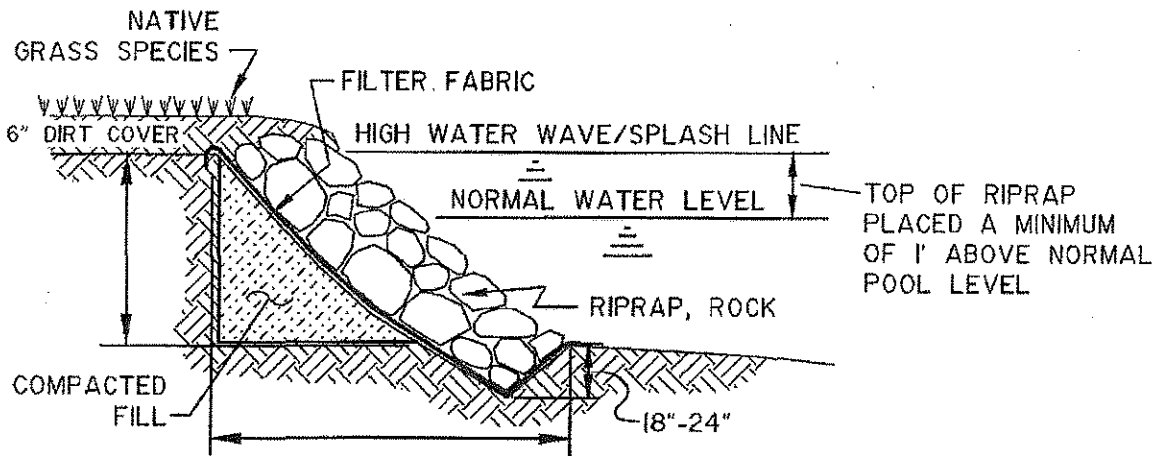
The programmatic general permit (PGP) authorizes revetments and bulkheads constructed of the following materials or methods: 1) broken concrete; 2) rock; 3) formed or fabricated concrete; 4) sheet metal with metal or wood pilings; 5) untreated timber; 6) plastic or PVC; 7) fiberglass; 8) weathered creosote treated timber (placed above ordinary high water mark only); 9) vegetation, including, but not limited to, grasses or willows.

The maximum shoreline length that each lake tenant or lake association is authorized to protect is 500 feet. The new revetment or bulkhead can only be installed in response to an actively eroding lake shore or in response to flooding caused or resulted from the lake management raising the normal water level at the lake. Individual permittees are allowed to backfill behind the new revetment or bulkhead. The filled area cannot go beyond (lake-ward) the pre-eroded shoreline or ten feet, whichever is less.

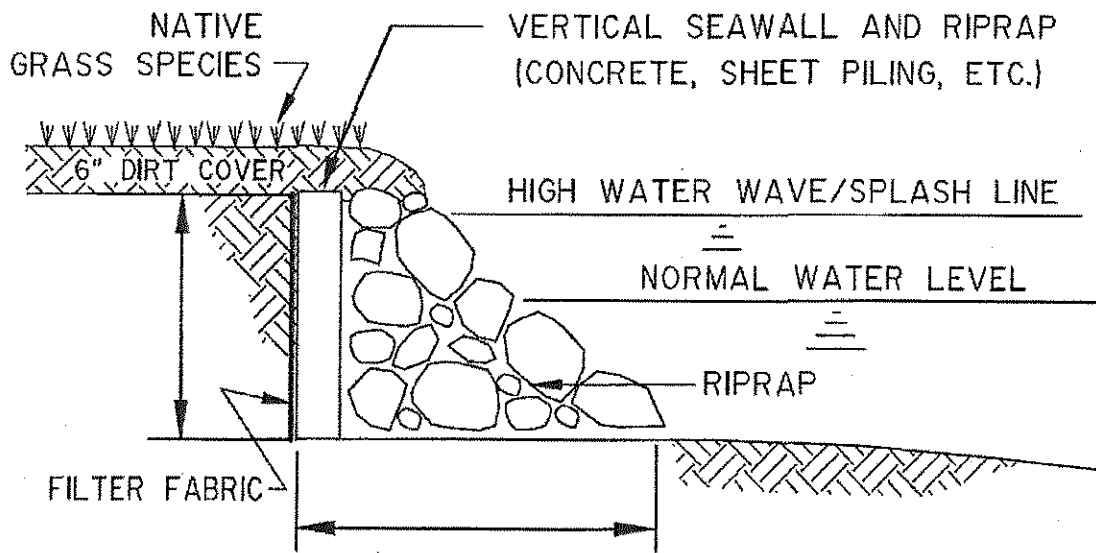
This PGP will also authorize the repair, rehabilitation or replacement of any previously authorized, currently serviceable structure or fill or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or fill area, including those due to changes in materials, construction techniques or current construction codes or safety standards that are necessary to make the repair, rehabilitation or replacement are authorized.

This authorization will allow for the reconfiguration of existing revetments in order to raise the height of protection in response to CNPPID or NPPD raising the lake elevation. In order to raise the height of protection, the normal water level must currently exceed the top of the existing revetment or will result in exceeding the top of the existing revetment.

The methods of bank protection authorized under this PGP are as follows:



CROSS SECTION



Project Location:

Central Nebraska Public Power & Irrigation District (CNPPID) lakes: Lake McConaughy, Jeffrey Reservoir, Central Midway Lake, East Midway Lake, Plum Creek Canyon Reservoir, Johnson Lake, Little Knapple Lake

Nebraska Public Power District (NPPD) lake: Lake Maloney

Permit Conditions:

General Conditions:

1. This PGP Amendment #4 will expire 5 years after the date the District Engineer signs.
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 the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
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. For your convenience, a copy of the certification is attached if it contains such conditions.
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.

Special Conditions:

1. The Corps will be notified of any work or extension of work authorized by CNPPID or NPPD under this PGP.
2. After a detailed and careful review of all of the conditions contained in this permit, the permittee does acknowledge that, although said conditions were required by Corps of Engineers, nonetheless, the permittee agreed to those conditions voluntarily to facilitate insurance of the permit and the permittee will comply fully with all the terms of the permit conditions.
3. This PGP Amendment #4 will expire 5 years after the date the District Engineer signs. The time limit for completing each discrete activity is three years from the date of its individual authorization. If additional time is required to complete the individually authorized activity, a written request for a time extension shall be submitted to CNPPID or NPPD at least one month prior to their individual three year expiration date.
4. If broken concrete riprap is used, it shall be covered, from the top of the structure down to the expected high water wave/splash line, with a minimum of six inches of soil compacted into the voids to the riprap and immediately seeded with a nurse crop and a mixture of native grass species.
5. The District Engineer has the discretion to require an Individual Permit on a case-by-case basis for any of the activities authorized herein. CNPPID and NPPD shall consult with the Corps of Engineers if it is questionable that a proposed activity can be authorized under this PGP.

6. This PGP does not authorize construction of new revetments in special aquatic sites, including wetlands. The permittee (CNPPID or NPPD) shall notify the Corps if impacts to wetlands are proposed. Repair, maintenance and replacement of existing fill in wetlands may be allowed. If allowed, impacts to wetlands are expected to be minor.
7. No activity is authorized under this PGP that is likely to 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 that is likely to destroy or adversely modify the critical habitat of such species. Authorization of an activity by this PGP does not authorize the "take" of a threatened or endangered species as defined under the Federal ESA. NPPD authorizations shall comply with the "Plan to Protect Eagle Perch and Root Sites on Project 1835 Lands." and CNPPID authorizations will comply with all terms and conditions of endangered species protection contained in the March 2003 approved Land and Shoreline Management plan and any revision in the final plan approved by FERC.
8. No individual action under the PGP shall be allowed if it jeopardizes the continued existence or results in the "take" of state-listed threatened or endangered species described as Key Species in Title 117-Nebraska Surface Water Quality Standards.
9. All authorizations issued by CNPPID shall be subject to the terms and conditions of the Cultural Resource Management Plan (as approved by the Federal Energy Regulatory Commission, through consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation). All authorizations issued by NPPD shall be subject to their cultural resource surveys as approved by the State Historic Preservation Officer. Consultation with the Corps of Engineers prior to authorization shall be required if a proposed activity may affect a cultural resource that is listed or eligible for listing in the National Register of Historic Places.
10. No fill for the construction of new revetments shall be discharged into wetlands or spawning areas.
11. PCP-impregnated materials shall not be used. Creosote or copper chromate arsenic (CCA) treated wood shall not be placed in waters of the United States. Treated creosoted wood and CCA-treated wood can be used only if installed at least one foot above the ordinary high water mark of the lake. The permittee must modify their existing revetment if CNPPID or CPPD raises the normal lake water levels above one foot below the treated creosoted wood or CCA-treated wood.
12. No discharge of dredged or fill material shall consist of unsuitable material (trash, debris, car bodies, asphalt, for example) and material discharged must be free from toxic pollutants in toxic amounts.
13. After placement, all protruding reinforcing bar/steel and wire mesh shall be removed from the surface of the broken concrete riprap. Construction debris (i.e., lath, plaster, asphalt, scrap iron, etc.) is not allowed to be mixed in with the concrete riprap.
14. Steps shall be taken to prevent materials, such as any petroleum products, chemicals, or other deleterious materials that are spilled or stored on site, from washing into the lake as a result of cleanup activities, natural runoff, or flooding. During construction, materials which are accidentally spilled into these areas, will be retrieved.
15. When not in use, all construction materials, equipment and/or petroleum products shall be stored above the anticipated high water line.
16. No activity shall substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species that normally migrate through the area.
17. When the District Engineer has been notified by a resource agency that a permitted project is adversely affecting fish or wildlife resources or the harvest thereof, the District Engineer shall require immediate compliance with any necessary remedial measures.
18. No discharge of dredged or fill material shall occur in the proximity of a public water supply intake.

19. All work in the lake shall be performed in such a manner as to minimize increases in suspended solids and turbidity, which may degrade water quality and damage aquatic life outside the immediate area of construction.
20. Construction activities will employ controls to reduce the erosiveness of land adjacent to the lake. This includes revegetating disturbed areas and maintaining the controls.
21. Vegetation clearing in or adjacent to the lake will be held to a practicable minimum. Upland vegetation disturbed by construction shall be re-established if needed to prevent sedimentation into the lake.
22. If the Corps of Engineers is notified that the work performed under this PGP does not comply with permit conditions, the responsible party shall take immediate steps to bring the project into compliance with permit conditions.
23. Fill material for the construction of revetments and bulkheads shall not exceed one cubic yard per linear foot below the ordinary high water mark. This does not include any fill material placed beforehand for the purpose of eliminating indentations.
24. A copy of the PGP shall be presented and explained by CNPPID or NPPD to each contractor involved with an authorized fill activity.
25. All fill material shall be permanently stabilized at the earliest practicable date.
26. Riprap material must consist of clean broken concrete, rock, or similar manufactured material of sufficient size and shape to withstand wave action unique to the specific location. Riprap shall be angular in shape to allow interlocking between the various rock sizes, and on average, be large enough to be immovable by anticipated waves.
27. Graded riprap should range in size such that the maximum single dimension is no greater than 36-inches with no more than ten percent of the riprap having a single dimension less than 6-inches. The quantity of small pieces shall be kept as low as possible, sufficient only to fill the voids between larger pieces, with care taken to ensure that the smaller material is well distributed throughout the mass and not allowed to segregate or form zones of inadequate protection.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the River 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, tribal, 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 project.

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.

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 issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time 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 (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

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 to 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.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

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

Martha S. Chieply
(DISTRICT ENGINEER)

John W. Henderson, P.E.
Colonel, Corps of Engineers
District Commander

1 Aug 2014
(DATE)

By:
Martha S. Chieply,
Chief, Omaha Regulatory Branch

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

MATERIALS LIST FOR SHORELINE PROTECTION, WATER ACCESS, & FISH ATTRACTORS

ACCEPTABLE MATERIALS

- Riprap material must consist of clean broken concrete, rock or similar manufactured material of sufficient size and shape to withstand wave action unique to the specific installation location.
- Riprap shall be angular in shape to allow interlocking between the various riprap sizes, and on average, be large enough to be immovable by anticipated waves.
- Graded riprap shall range in size such that the maximum single dimension for an individual piece is no greater than 36-inches with no more than 10% of the riprap material having a single dimension less than 6-inches.
- Broken concrete riprap will be considered on a case-by-case basis (contact Central to make an appointment).
- Formed or fabricated concrete, Fabriform, and Solid Concrete Blocks which are angular in shape will be considered on a case by case basis.
- Properly anchored trees, treetops, root wads, logs, and hay bales may be allowed on a case-by-case basis.
- Plastic, PVC, and/or Fiberglass.
- Metal or plated metal, so long as nothing protrudes which may cause damage or injury.
- Metal or plated metal used to connect/secure permitted items, i.e. nuts, bolts, nails, cables, straps, chain, etc.
- Untreated lumber.
- Lumber and wood pilings, treated with creosote or chromate copper arsenate (CCA), may be used if located more than one foot above the Ordinary High Water Mark (OHWM) of the lake.
- Cut trees utilized for fish attractor structures when properly anchored and meeting placement guidelines.
- Clean concrete block when used as anchoring for fish attractor structures.

MATERIALS NOT LISTED AS
ACCEPTABLE WILL BE CONSIDERED ON
A CASE-BY-CASE BASIS.

ORDINARY HIGH WATER MARK (OHWM)

Reservoir	Elevation†
McConaughy	3,265.0'
Jeffrey	2,759.0'
Central Midway	2,629.6'
Glen Young	2,629.1'
Plum Creek	2,627.2'
Johnson	2,618.3'
Knapple	2,504.8'

† Elevation is measured in feet above mean sea level in Central's FERC datum

THE CENTRAL NEBRASKA PUBLIC POWER AND IRRIGATION DISTRICT

308-995-8601 OR 308-537-3582
PERMITS@CNPPID.COM

PROHIBITED / RESTRICTED MATERIALS

- Vehicle bodies, farm machinery and scrap metal items, including but not limited to appliances and various metal containers.
- All material must be free of exposed rebar, wire, wire mesh or protruding metal which may cause damage or injury.
- Tires.
- Asphalt or asphalt coated material.
- Any material subject to leaching when in an aquatic environment, including but not limited to, chemically-treated material, roofing material, and various treated or painted wood debris.
- Non-encapsulated, beaded polystyrene.
- Construction debris including but not limited to lath, plaster, brick, scrap iron, etc.
- Flotation units that may become waterlogged or sink when punctured.
- Slab riprap material, regardless of source, must be broken prior to placement so that the maximum dimension of an individual piece of riprap is no more than 3.5 times its minimum dimension.
- Organic debris utilized as fill material in a shoreline protection project.
- Treated lumber and pilings (creosote and/or chromate copper arsenate (CCA)) located less than one foot above the OHWM of the lake.