

DEPARTMENT OF THE ARMY PERMIT

Regional General Permit

For

Sandy River Basin January 2011 Flood Response

Permit No: NWP-2011-199

EFFECTIVE DATE: September 9, 2011

EXPIRATION DATE: August 31, 2016

Issuing Office: U.S. Army 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 U.S. Army Corps of Engineers (Corps) 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 RGP has been designed as an innovative response to localized flooding for the Sandy River Basin as a result of flooding in January 2011. The goal was to create an expedited permitting process that allows the Corps to be responsive to the needs of the community, while ensuring that those needs are balanced against the impacts on the public interest and ensures compliance with applicable federal and state laws and results in minimal individual and cumulative environmental consequences. The intent is primarily stabilization-in-place but may involve minor replacement of eroded lands, as needed to protect structures. Additionally, the RGP relies heavily on strong bio-engineering components.

Some authorization to modify work that is already completed or on-going could be permitted where it meets the requirements below. For work done previously, applicants may be required to remove rock, stockpiled debris, sediments, or other materials.

This RGP authorizes minor replacement of uplands to protect existing structures. For projects that involve minor replacement of lost uplands, Permittees shall provide detailed information regarding work previously done both upstream and downstream of the project location, as well as across the river. Permittees shall also describe in detail, adjacent land uses. Permittees shall also provide a detailed description of what measures were taken to minimize the project and impacts to the aquatic environment. The RGP will only provide authorization for the minimum amount of discharge necessary to protect existing structures. This will be determined on a case-by-case basis.

Compensatory mitigation may be required for a project having more than minimal impacts to the aquatic environment. The need for compensatory mitigation will be determined on a case-by-case basis

during review. Examples of work that may require mitigation include rock toes, replacement of lost uplands, etc. The scope of mitigation will be commensurate with the scope of the impacts.

Stream and Floodplain Restoration

-Side channel or off-channel habitat restoration. Opening areas blocked by past channel movement or in reaction to rip-rapped banks will provide increased channel complexity and can relieve erosion forces on nearby streambanks during high flows. This may involve modifications or relocation of existing log-jams.

-Floodplain roughness and/or flow spreaders. Both of these techniques prevent or decrease overbank flow velocity and related shear stress where there is avulsion potential. Examples include live trees and shrubs, and large woody debris in the floodplain, used to construct live siltation fences, brush traverses, brush rows and live brush sills. Flow spreader structures function to restore the natural roughness of a floodplain, and can include both vegetation and accumulated debris placed against trees, or non-deformable compacted soil or rock, which can be used in combination with planted trees.

-Set-back existing berms or dikes. These may be done in such a way to not require authorization from the Corps, and will be evaluated on a case-by-case basis.

Bioengineering projects:

-Engineered-log-jam (ELJ) - constructions are similar to stable, natural log jams but can be anchored in place to appropriately redirect flows and stabilize the streambank. Engineered log jams may be appropriate to reduce scour, if placed upstream from the scour hole to redirect flow away from the cause of the scour or to dissipate energy. At the ELJ site, scour at the margin and the associated downstream deposition moves the location of the thalweg away from an eroding bank. Jams tend to split the flow, and the flow directed along the bank may create a side channel, but the jam can be anchored to a stable location where such channels are not appropriate.

-Biotechnical techniques such as woody planting and/or herbaceous cover; soil reinforcement lifts and; coir logs (with planting holes) may be used in combination to modify bank erosion potential by establishing extensive rooted vegetation.

-Bank reshaping reduces the slope of the bank, leaving the toe location in place. It can be combined with other bank-protection treatments, including re-vegetation of the excavated bank and installation of toe protection and erosion-control fabric. It can be effective for over-steepened banks.

Structural techniques:

-Roughness trees. To slow flow velocity along the bank, roughness can be introduced by installing large wood into the channel and along the banks. Roughness trees trap sediment, allowing vegetation to establish, and results in bank stabilization. They are useful where long bends have vertically eroding banks with energy dissipated uniformly, and where toe erosion as the primary mechanism of bank failure. In high-energy systems, the trees must be large enough or anchored sufficiently.

-Log toes. Log toes are constructed of logs, with gravel fill between them, and may also include large wood components to provide additional habitat value. Root wads can be used to seal them, and the

bank can be shaped and planted. They differ from log crib-walls as they are not meant to be retaining walls and their top elevation is lower than the lowest vegetation elevations.

-Anchor points using logs. These are placed at the upstream and/or downstream end of an isolated scour hole to prevent or limit erosion along the bank. Large trees serving as natural anchor points can be protected by planting along the adjacent bank and by protecting the downstream surfaces with a combination of rock & large wood, such as a log-filled trench anchor. They are not appropriate if there are large flow-direction changes during higher flow levels. They may be used to supplement other techniques.

-Log cribwalls with live plantings can be useful where toe erosion is the cause of bank failure, and will allow long-term channel migration, although they may prevent deformation and restrict formation of habitat, incorporating rootwads or large wood can minimize these adverse effects.

-Roughened rock-toes. These add roughness and protection to limit toe erosion, extending only from the maximum predicted depth of scour to the lower limit of vegetation. They can be used as a foundation for other bank treatments, and to armor against scour if landward of the scour hole. Roughened rock-toes should provide habitat value and roughness features by incorporating large wood.

CONSIDERATIONS

Note: Projects may involve a combination of several of the activities described above. Work at one site may supplement techniques at another site, and multiple property owners may together propose a single project beneficial to several nearby sites (e.g. side channel restoration). **Engineered designs may be required, with analysis of impacts to reaches downstream and upstream, potentially using resources, such as Lidar imaging and modeling that demonstrate potential for success.**

Large wood must have untrimmed root wads. These may be anchored with rock, and must be intact, hard, and un-decayed to partially decaying.

In-water work window will be followed for all projects EXCEPT: Large wood restoration, may be completed at any time, provided that the affected area is not occupied by adult fish congregating for spawning or in an area where redds are occupied by eggs or pre-emergent alevins. These projects must be coordinated through the Corps.

Note: Projects may involve a combination of several of the activities described above.

ACTIVITIES NOT AUTHORIZED BY RGP:

Non-minor replacement of lost uplands. This includes reclaiming lost lands outside of those projects kept to the minimum amount necessary to protect existing structures, roadways, or utilities. To be considered minor, the project must include a detailed purpose (i.e., to restore lost land and allow for protection of a home). Re-creating lost uplands for aesthetic purposes is not a valid use of this category under the RGP.

Rock hardening without bioengineering components. These would include structures such as riprap revetments, walls, or dikes. The purpose of the RGP is to heavily incorporate restoration and bioengineered components into stabilization projects. Rock structures do not meet the project purpose, while insuring minimal impact to the waterway and aquatic environment.

Non-vegetated flow redirection: groins, barbs, drop structures, porous weirs. The purpose of the RGP is to heavily incorporate restoration and bioengineered components into stabilization projects. Rock structures do not meet the project purpose, while insuring minimal impact to the waterway and aquatic environment. These designs have been found to have a more than minimal impact on the environment and for this reason are not covered under this RGP.

Manufactured retention systems. This would include structures such as concrete retaining walls, crib walls, articulated concrete mats, concrete 'pillow' matting, or other hardened structures. The purpose of the RGP is to heavily incorporate restoration and bioengineered components into stabilization projects. Hardened, manmade structures do not meet the project purpose, while insuring minimal impact to the waterway and aquatic environment. These designs have been found to have a more than minimal impact on the environment and for this reason are not covered under this RGP.

Subsurface drainage structures. This would include structures such as perforated pipes, French drains, or other pipes and structures designed to alter subsurface flow. The purpose of the RGP is to provide bank stabilization with heavily bioengineered components. Altering flow through use of drainage structures does not achieve the project purpose and is therefore not covered by the RGP.

Ongoing dredging. The RGP does not cover on-going dredging. If minor excavation is necessary to properly prepare an area for bank stabilization treatment, it must be demonstrated that this activity is not part of a long-term or routine dredging activity. The purpose of the RGP is to provide authorization for bank stabilization projects, on-going dredging does not meet the project purpose.

NOTE: While the above list of activities are not authorized by this RGP, applicants may apply for a Standard Individual Permit if they wish to employ these techniques. The Standard Individual Permit timeframes and coordination with other State and Federal agencies still apply and these projects may also require compensatory mitigation.

Purpose: The purpose of the RGP is to expedite the authorization of repair, reconstruction, or restoration activities that are necessary as a result of the flood events of January 2011. Numerous properties utilities, roadways, and structures suffered extensive erosion and damage as a result of the flood events. This RGP is needed to allow timely review of requests for restorative activities. Use of the RGP is intended to reduce the amount of paperwork and time required to authorize qualifying projects by making available for use an already issued Department of the Army general permit that includes a concluded Endangered Species Act and Essential Fish Habitat consultation, and State water quality certification.

Project Location Projects will occur within waters of the U.S., as defined in 33 CFR 328.3, in the Sandy River Basin along the Sandy River (River Miles 36 - 46), ZigZag River (River Miles 0 - 6), Salmon River (River Mile 0 - 10), and Clear Creek (River Mile 0-0.25) in Clackamas County, Oregon.

General Conditions:

1. The time limit for completing the work authorized ends on **August 31, 2016**. If you find that you
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need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. Permittee 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 No. 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 (Enclosure 2).
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. In order to qualify for authorization under this RGP, you must submit an application to the Corps for review of your project. Your application must include a detailed project description that includes type of work, materials, and volumes, maps and drawings submitted in 8.5 x 11, and duration of work. The Corps will then make a determination regarding whether or not your project meets the terms and conditions of the RGP and will coordinate with the appropriate agencies. If the project qualifies, you will receive an authorization letter. Work may not begin until you have received project a specific authorization letter.
2. You shall notify the Regulatory Branch with the start date when the activities authorized in waters of the U.S. are scheduled to begin. Notification shall be sent by email to cenwp.notify@usace.army.mil or mailed to the following address:

U.S. Army Corps of Engineers
CENWP-OD-GC
Permit Compliance, Clackamas County
P.O. Box 2946
Portland, Oregon 97208-2946

The subject line of the message shall contain the name of the county in which the project is located followed by the Corps of Engineers permit number.

3. You shall submit a signed certification regarding the completed work and any required mitigation. This shall be in the form of a "Compliance Certification"
4. Cultural Resources and Human Burials: In the event evidence of human burials, human remains, cultural items, suspected cultural items, or historic properties, as identified by the National Historic Preservation Act, are discovered and/or may be affected during the course of the work authorized, the Permittee shall follow the procedures outlined below:
 - Immediately cease all ground disturbing activities
 - Notify the Portland District Regulatory Branch. Notification shall be made by fax (503) 808-4375 as soon as possible following discovery but in no case later than 24 hours. The fax shall clearly specify the purpose is to report a cultural resource discovery
 - Follow up the fax notification with an email to the Corps representative identified in the permit letter
 - Notify the Oregon State Historic Preservation Office (503) 986-0674

Failure to stop work immediately and until such time as the Corps has coordinated with all appropriate agencies and complied with the provisions of 33 CFR 325, Appendix C, the National Historic Preservation Act and other pertinent regulations, could result in violation of state and federal laws. Violators are subject to civil and criminal penalties.

5. The National Marine Fisheries Service (NMFS) issued a Biological Opinion (BiOp) for the work covered by the RGP, dated September 6, 2011 (Enclosure 1). All terms and conditions of the BiOp will be terms and conditions each of the permit authorization.
6. The Oregon Department of Environmental Quality (DEQ) has issued a Water Quality Certification (WQC), dated June 30, 2011 (Enclosure 2). All terms and conditions of the WQC are now terms and conditions of the permit authorization.
7. All work will be conducted during the Oregon Department of Fish and Wildlife (ODFW) in-water work window for the project reaches (July 15-August 31) unless otherwise approved in writing from both NMFS and the ODFW through the Corps. Requests for extensions or modification to the in-water work window must be submitted in writing to the Corps for approval at least two-weeks prior to construction.
8. For activities conducted outside of the in-water work window. Prior approval must be obtained from the Corps, the National Marine Fisheries Service, and the Oregon Department of Fish and Wildlife. The Permittee is responsible for demonstrating, through coordination with the Oregon Department of Fish and Wildlife, prior to ground disturbance or project implementation, that salmonids or spawning area (redds) are not present and will not be disturbed by the project.
9. For restoration plantings associated with ground disturbing activities, all plantings associated with this project shall be site-appropriate native species. The Permittee shall monitor plantings for a period of 2 years. If after the two-year monitoring period there is not an 85% survival rate, the area shall be replanted. Permittee shall make additional plantings as necessary to attain successful

survival rates and species diversity. If there are repeated or notable failures of a particular plant species, the probable cause will be noted and corrective action proposed. This proposal will be submitted to the Corps for approval.

Permittee shall actively remove undesirable vegetation during the entire monitoring period. Control methods will be modified as necessary based on an analysis of their effectiveness. Invasive vegetation and noxious weeds shall be less than 10 percent during the last year of the monitoring period.

10. Proper erosion and sediment control devices shall be installed prior to construction to minimize impact to the aquatic environment. Sediment and erosion control measures shall be maintained in proper working order throughout construction. Upon project completion or concurrent with site stabilization, erosion and sediment control devices shall be removed and disposed of in a properly designated upland location outside of waters of the U.S.
11. The worksite shall be isolated from the active channel to minimize turbidity and prevent pollution from entering the waterway.
12. Heavy equipment and machinery shall be stored and fueled a minimum of 150 feet (dependent upon site constraints) from waters of the US. Equipment shall be clean and free of leaks when operated in or near wetlands or waterways.
13. Spill containment measures shall be available during construction for immediate implementation in the event of a spill or leak. Absorbent booms, spill pads, or diapers shall also be stored on site during construction.
14. In order to maintain boat passage through the project area, any structures added to the waterway, including large wood, boulders, or other habitat restoration or enhancement features, shall be installed in a manner that does not obstruct existing boat passage.
15. For projects that involve replacement of lost uplands, projects will be kept to the minimum amount necessary to repair undermined upland areas to allow for upstream and downstream stabilization and restoration.

Please Note: Clackamas County Zoning Ordinances require applicants obtain a permit from both the County and the Corps of Engineers prior to initiating work. Receipt of these approvals does not obviate the need for obtaining other State or local permits, such as with the Department of State Lands.

Further Information:

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

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- 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 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.
- 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 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 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 (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 Corps No. NWP-2011-199

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.

6. Extensions: General Condition No. 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 the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

EXPIRATION, MODIFICATION OR REVOCATION OF THIS PERMIT.

Activities authorized under this RGP that are under construction or under contract for construction in reliance upon this authorization will remain authorized provided the activity is completed within 12 months of the date of this general permit's expiration, modification or revocation, unless the District Engineer has exercised his discretionary authority to modify, suspend, or revoke the authorization of a specific project in accordance with Corps regulations.

FOR THIS COMMANDER

**JOHN W. EISENHAUER, P.E. COLONEL, CORPS OF ENGINEERS, DISTRICT
COMMANDER:**



(DISTRICT COMMANDER)

21 SEP 2011

(DATE)

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.

(TRANSFEEE)

(DATE)