



US Army Corps
of Engineers,
Portland District

Public Notice

Proposal to Issue a Regional General Permit for Discharges into Vernal Pool Wetlands

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Issue Date: May 5, 2008
Expiration Date: June 4, 2008
Corps of Engineers Action ID: NWP-2007-01005

Interested parties are hereby notified that, in accordance with 33 CFR 325.3(b), the U.S. Army Corps of Engineers, Portland District (Corps) is proposing to issue a regional general permit (RGP) authorizing the placement of fill material into waters of the United States within the Agate Desert region of Jackson County, Oregon, pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). A draft of the proposed general permit is included with this public notice for review and comment.

WORK AUTHORIZED BY THIS PERMIT

This Regional General Permit (RGP) authorizes the general public to discharge fill material into vernal pool wetlands within the Agate Desert Area of Jackson County, Oregon for activities such as: a) commercial, residential, or industrial development; b) installation and maintenance of utilities, and infrastructure associated with such developments; c) road development and maintenance, including road crossings; d) wetland restoration and enhancement; and e) sand, gravel, and aggregate removal except from within any active stream channel, bed or channel migration zone. The loss of waters of the United States resulting from individual project impacts may not exceed a total of 3 acres of vernal pool wetland (or 15 acres of vernal pool complex). Proposed projects which do not meet the eligibility requirements of the proposed RGP would require separate authorization from the Corps by standard permit, letter of permission, regional general permit or nationwide permit.

PURPOSE

The purpose of the RGP is to expedite the authorization of recurring activities that are similar in nature and have minor individual and cumulative adverse impact on the aquatic environment. 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 will likely include a State water quality certification. Development of this RGP will also serve to align the federal Clean Water Act and Rivers and Harbors Act permitting requirements with those of the state of Oregon's Removal/Fill Law for qualifying projects. The Corps, U.S. Fish and Wildlife Service, Environmental Protection Agency, and the Oregon Department of State Lands (DSL) have collaborated on the development of this RGP. DSL is in the process of developing a comparable General Authorization (GA).

WATER QUALITY CERTIFICATION

Portland District is requesting certification of this RGP under Section 401 of the Clean Water Act. The Oregon Department of Environmental Quality public notice advertising the request for certification is attached.

ENDANGERED SPECIES

The Corps has not yet initiated consultation with U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) for the proposed RGP. The Corps, however, has started discussions regarding the ESA consultation process with USFWS and intends to complete consultation prior to issuance of any RGP.

CULTURAL RESOURCES

Proposals for activities to be authorized by this RGP will be reviewed individually to determine whether those activities may be located on property registered or eligible for registration in the latest published version of the National Register of Historic Places. A copy of each notice for projects proposed to be authorized by this RGP will be provided to the State Historic Preservation Office (SHPO) by the Corps. Copies of the notice will also be sent to Indian Tribes who have an interest in the area in which the proposed action would occur. If information is received from the SHPO, tribes or other interested parties which indicates that the site of the proposed action may affect human burials, cultural resources or historic properties (as identified by the Federal historic preservation laws), the Corps will take actions needed to comply with Federal cultural resources and historic preservation laws and regulations.

EVALUATION

The decision whether to issue this RGP will be based on an evaluation of the probable impacts including cumulative impacts of the described activities on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the described activities must be balanced against their reasonably foreseeable detriments. All factors, which may be relevant to the described activities will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of the activities proposed to be authorized by this RGP. Any comments received will be considered by the Corps of Engineers in its decision on this RGP. Comments will be considered in the preparation of an Environmental Assessment pursuant to the National Environmental Policy Act. Comments will also be used to determine the need for a public hearing and to determine the overall public interest of the proposed activities.

The evaluation of the likely impact of the proposed RGP on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. This evaluation will include an alternatives analysis.

PUBLIC HEARING

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this proposal. Requests for a public hearing shall specifically state the reasons for holding the hearing. The Corps holds public hearings for the purpose of obtaining public comments, when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

COMMENTS

Comments on the proposed RGP should reference the U.S. Army Corps of Engineers number NWP-2007-01005 and should reach this office no later than June 4, 2008, to become part of the record and to be considered in the decision. Comments should be mailed to the following address:

U.S. Army Corps of Engineers, Portland District
ATTN: CENWP-OP-G (Judy Linton)
P.O. Box 2946
Portland, Oregon 97208-2946

Comments may also be sent by email to: judy.l.linton@usace.army.mil.

Encl.

Draft RGP #NWP-2007-01005

DEPARTMENT OF THE ARMY PERMIT

**REGIONAL GENERAL PERMIT
FOR**

**Discharges of Fill Material into Vernal Pool Wetlands
Jackson County, Oregon**

PERMIT NO.: NWP-2007-01005

EFFECTIVE DATE: _____, 2008

EXPIRATION DATE: _____, 2013

ISSUING OFFICE: U.S. Army Corps of Engineers, Portland District

This Regional General Permit (RGP) authorizes the placement of fill material into waters of the United States within the Agate Desert region of Jackson County, Oregon that would cause no more than minimal adverse environmental effects (individually and cumulatively) subject to the terms and conditions contained herein. This RGP is issued upon the recommendation of the Chief of Engineers as provided by 33 CFR 325.2(e)(2), pursuant to Section 404 of the Clean Water Act (P.L. 95-217).

This RGP was developed through the collaboration of an inter-agency team representing the U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (Service), Environmental Protection Agency, and Oregon Department of State Lands (DSL) (collectively the Agencies). The intent is to streamline the regulatory requirements of the Clean Water Act, Oregon's Removal/Fill Law, and the Endangered Species Act, while improving conservation of vernal pool habitat complexes and associated plant and animal species.

1. ACTIVITIES AUTHORIZED BY THIS GENERAL PERMIT

This Regional General Permit (RGP) authorizes the general public to discharge fill material into vernal pool wetlands within the Agate Desert Area of Jackson County, Oregon for activities such as: a) commercial, residential, or industrial development; b) installation and maintenance of utilities, and infrastructure associated with such developments; c) road development and maintenance, including road crossings; d) wetland restoration and enhancement; and e) sand, gravel, and aggregate removal except from within any active stream channel, bed or channel migration zone. The loss of waters of the United States resulting from individual project impacts may not exceed a total of 3 acres of vernal pool wetland (or 15 acres of vernal pool complex).

This RGP applies within the geographic area identified in Figure 1. This area generally conforms to the boundaries of the Agate-Winlo soil series as mapped by the Natural Resources Conservation Service's Jackson County soil survey and is part of the Klamath Mountain vernal pool region as described in the Service's final Recovery Plan for Vernal Pool Ecosystems in California and southern Oregon (Recovery Plan) (USFWS 2005).

2. DEFINITIONS

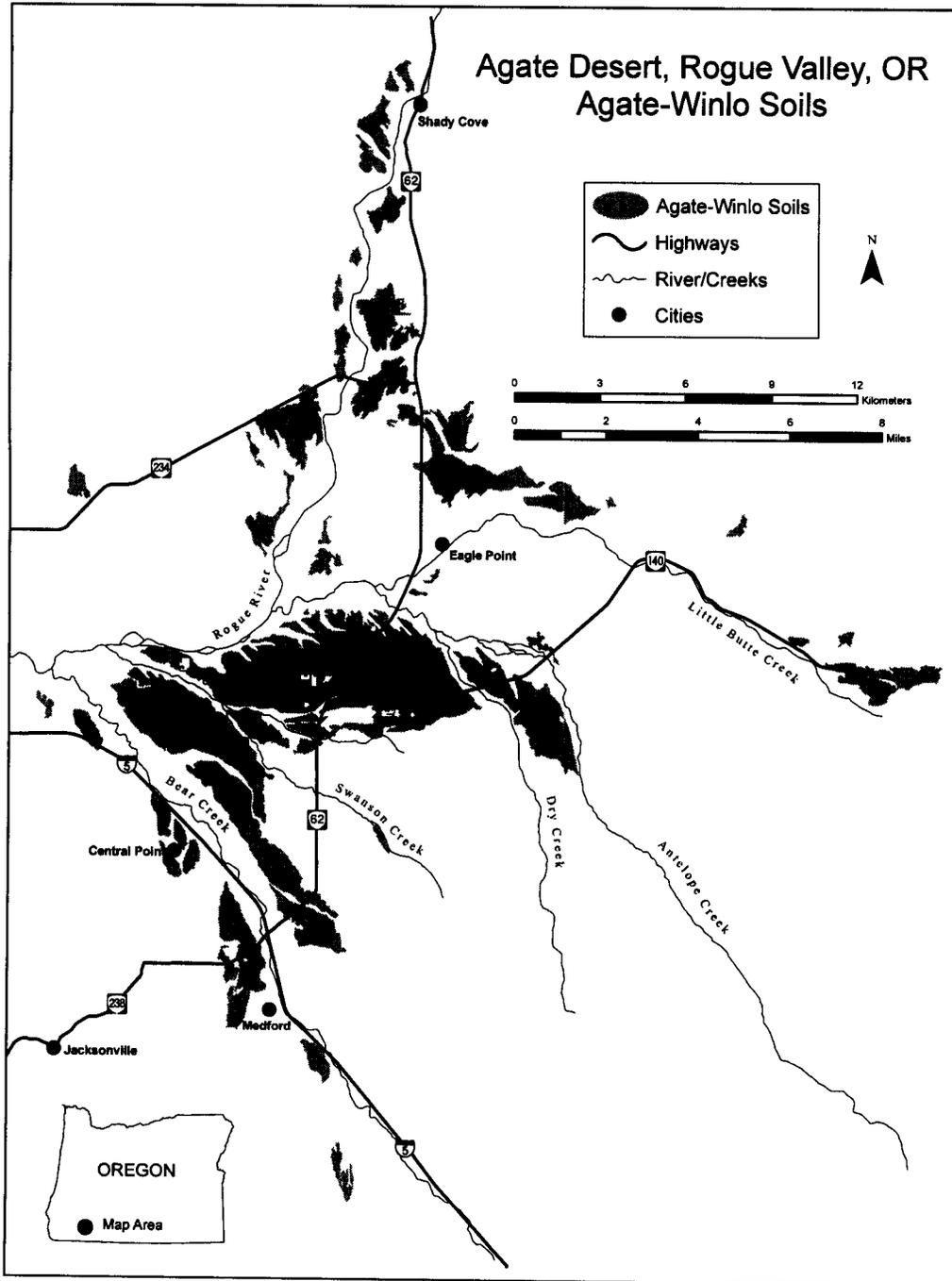
Conservation Banks: A permanently protected parcel of land, privately or publicly owned, that is managed for endangered, threatened, or other at-risk species. The Service approves habitat or species credits based on the natural resource values on the bank lands. In exchange for permanently protecting the bank lands and managing them for listed species, the conservation bank owners may sell credits to developers or others who need to compensate for the environmental impacts of their projects. This RGP is intended to encourage establishment of conservation banks in the Agate Desert area to provide mitigation for impacts to both wetlands and rare species; thus such a bank would serve as both a conservation bank and a wetland bank, with a single accounting system and a unified process and instrument.

Individual Mitigation Projects: Actions undertaken by a permittee to compensate for impacts resulting from his specific project. The permittee performs the mitigation after a permit is issued and before or concurrent with impacts for development. The permittee is ultimately responsible for implementation and success of the mitigation. Depending on the size of the specific project and associated impacts, some project-specific mitigation areas may not satisfy the size suitability criteria in section 3A and therefore would not be eligible for inclusion in the program described in this RGP.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for the RGP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions.

Mitigation Banks: These are large mitigation projects serving to compensate for impacts resulting from multiple development projects. Banks are established through a formal agreement or "Instrument" signed by the regulatory Agencies and a bank sponsor. Once a bank is approved, the sponsor performs the restoration, enhancement, or protection and management activities to generate wetland mitigation credits. The regulatory agencies will release credits for sale by the sponsor once the bank meets the performance standards. The sponsor, rather than the credit purchaser, is ultimately responsible for implementation, maintenance and long term stewardship of the mitigation bank. Bank sponsors may be individual citizens, corporate entities, or local, county, or state

Figure 1: Agate-Winlo Soils in the Rogue Valley



governmental entities. There are specific state and federal regulations that describe the details of mitigation banking. This RGP is intended to encourage establishment of one or more mitigation banks in the Agate Desert area to provide mitigation for impacts to both wetlands and rare species; thus such a bank would serve as both a conservation bank and a wetland bank, with a single accounting system and a unified process and instrument.

Mitigation Credits: One wetland mitigation bank credit is equivalent to the amount of mitigation needed to offset one acre of wetland impact. A private or public party may, with approval of the agencies, establish a wetland mitigation bank by conducting a mitigation project according to the requirements of this RGP. The Corps and DSL, will jointly determine how many credits would be generated by the proposed protection and restoration activities at the bank site, as described in the Bank Instrument. Once a bank is established, the bank sponsor may then sell wetland credits to developers who need to offset their wetland impacts, subject to permit approval.

Protect and Manage Mitigation: to provide permanent protection via a conservation easement with a recognized land stewardship trust or equivalent, subject to agency approval, a long term management plan, and a secure ongoing funding source such as an endowment. During the startup phase, "Protect and manage" mitigation shall include the establishment of native plant communities throughout the site to meet vegetation performance standards for four years.

Restore and Manage Mitigation: to re-grade past alterations to match historic vernal pool topography and hydrology, then continue with revegetation, ongoing management, and protection. This applies to any area where pools have been filled, leveled, drained, or drowned, but the hardpan is still intact. Any areas with restoration opportunity, located within a larger tract of undisturbed area that qualifies for the protection-management ratio, shall pro-rate the ratio by area.

Vernal Pool Complex: an area including both wetland pools and upland mounds.

3. MITIGATION REQUIREMENTS

Mitigation can be accomplished as individual mitigation projects or by using an established mitigation or conservation bank. Approved mitigation for vernal pool wetland impacts will be based on an approved wetland delineation and vernal pool functional assessment methodology (see guidance to assist conservation efforts for vernal pools on the Agate Desert (Guidance Document) at <http://www.fws.gov/oregonfwo/FieldOffices/Roseburg>). Out-of-kind mitigation is not allowed for vernal pool impacts.

All mitigation projects must meet the site location, suitability, size, and performance criteria described below. Mitigation for vernal pool impacts consists of two categories which are defined above: 1) Protect and Manage, and 2) Restore and Manage.

A. Mitigation Ratios:

Two base ratios are recognized, one for each type of vernal pool mitigation. A multiplier applies to the ratios for impact sites that are in medium or high condition as follows:

Base ratios

Protect & Manage 5:1 = 5 acres of complex protected for 1 acre of wetland impact
Restore & Manage 2:1 = 2 acres of complex restored for 1 acre of wetland impact

Vernal pool impact site quality multipliers --		P&M	R&M
Low condition – straight ratio	1	5:1	2:1
Medium condition multiplier	1.5	7.5:1	3:1
High condition multiplier	2	10:1	4:1

Wetland impact site condition ratings:

Low – impact site parcel is ½ acre or less total land area including uplands, OR
any site where function assessment score in lowest 30%

Medium – impact site total area ½ to 10 acres OR
Function assessment score between 30 and 70%

High – impact site over 10 acres OR function assessment score over 70%

Acreage for both impact site and mitigation site is determined based on a jurisdictional delineation of the wetlands at each site, before & after the project is implemented. Uplands between pools in a mitigation site must be included under the same land protection measures as the wetlands.

B. Mitigation Site Suitability Criteria:

1. Site and Size Suitability.

a) Mitigation site wetlands must meet Corps jurisdictional criteria to be waters of the United States once the mitigation work is completed

b) Mitigation sites must be of sufficient size to provide a high likelihood of maintaining ecological value and function in perpetuity. The actual size and conditions that will allow a specific parcel of land to satisfy the criteria above will vary depending on the specific impacts the project is intended to mitigate, and the current and likely long-term uses of adjacent and nearby lands. However, in general, it is assumed that large, contiguous parcels of 100 acres or more have a higher likelihood of providing adequate functions over the long-term than smaller parcels when located within areas in which the surrounding land uses are not compatible with long-term vernal pool conservation. Smaller parcels may be adequate when they exist as ecologically connected “satellite” areas to the larger sites described above. Smaller parcels (10-100 acres) may also be adequate in

isolation if they exist within areas in which surrounding land uses are expected to be compatible with long-term vernal pool conservation.

To be acceptable under this program, the total effective size of a mitigation project must therefore be at least 100 contiguous acres. Effective size means that the agencies will consider adjacent, permanently protected parcels that are dedicated to vernal pool conservation as part of the acreage total even if they are owned and managed by another party. For example, a 10 acre mitigation proposal could be approved under this proposal if it has uninterrupted continuity of soils, water flows, and topography with an adjacent approved mitigation or conservation project of 90 acres

c) The mitigation parcel must include sufficient area to maintain the hydrologic regime, soils, topography, and vegetative conditions that provide suitable habitat for the typical suite of vernal pool species.¹

d) All sites proposed for mitigation must meet the 70th percentile ranking of the function assessment scores to qualify, or it must be demonstrated that sustainable restoration or management could raise the site to meet this threshold level of functionality.

e) All mitigation sites must have an intact hardpan layer. If the hardpan layer is perforated at the perimeter of the site, or if activities such as road crossings are anticipated that would perforate the hardpan, the area of the mitigation site that is within 100 feet of the edge of the hardpan shall generate half as many mitigation credits.

f) Mitigation actions proposed for lands that are already designated for conservation purposes must provide benefits to vernal pool habitats and species above and beyond those resulting from the current conservation status of the lands. For such cases, credits may be negotiated with the Agencies.

g) To the extent possible, mitigation areas should be sited in such a way that activities proposed for development and maintenance of the sites will not result in adverse effects to state or federally listed species or vernal pool habitats outside of the proposed mitigation area.

¹ In most cases, this will necessitate inclusion of not only the wetland portion the vernal pools, but also surrounding upland mounds and adjacent areas that adequately buffer the vernal pool habitats against ecological edge effects and effects from adjacent and nearby land use. This buffer or "protective fringe" will be particularly important with regard to protecting the vernal pool habitat from disruptions in water supply and hydrology, and degradation of the quality of the water within the vernal pool habitats.

h) Mitigation projects may be composed of a single contiguous parcel of land or several geographically separate parcels, provided each parcel satisfies the criteria described above.

4. PERFORMANCE CRITERIA²

A. Hydrology and Topography

Vernal Pool Depth and Side Slope Steepness (ESA 2007):

The height of the top of mound to bottom of the associated inter-mound (vernal pool) ranges between 22 and 32+-inches and the side slopes for the vernal pool are no steeper than 7:1 (unless the vernal pool was formed by natural processes).

The vernal pool meets the hydrology criterion in the U.S. Army Corps of Engineers 1987 wetland identification and delineation manual.

Hydrology (ESA 2007):

85% of the vernal pools observed during January will have a mean high water depth of 4 to 11 inches. Mean high water can be determined by water depth measurements or upper extent of hydrophytic plants or vernal pool vegetation association.

B. Vegetation of Vernal Pool Complex³

The vernal pool habitats are expected to be dominated by native Agate Desert vernal pool complex plant species and surrounding upland will be restored to contain key native perennial and annual plants (specifics on the plant species criteria described below can be found in the Guidance Document located at <http://www.fws.gov/oregonfwo/FieldOffices/Roseburg>). The outer boundary of vernal pool shall be considered the same as the jurisdictional wetland boundary.

² The creation of these performance standards was a joint effort between U.S. Fish and Wildlife Service and The Nature Conservancy biologists and others familiar with the ecology of the Agate Desert Vernal Pool Complex. The 2007 Agate Desert Vernal Pool Functional Assessment Methodology completed by the Environmental Science Associates was also used to help inform decisions on performance standards. The U.S. Fish and Wildlife Service accepts full responsibility for the translation of biological considerations provided by TNC and the 2007 Agate Desert Vernal Pool Functional Assessment Methodology into language deemed appropriate for the use as compensatory mitigation performance standards.

³ Vegetation monitoring will be in the spring (April 1 to May 15).

Vernal Pool Vegetation (Specific Management Unit)

- 1) Absolute percent cover of exposed substrate not covered by vernal pool plant species is no more than 95% (Target Year 1), 90% (TY2), 85% (TY3), 80% (TY4), and 75% (TY5);⁴
- 2) Native vernal pool plant species relative percent cover (excluding substrate) is \geq 70%.
- 3) Non-native invasive vernal pool species relative percent plant cover is no more than 15%; and
- 4) At least 15 native vernal pool species are present in existing vernal pools designated for protection and management and at least 10 native vernal pool species are present in vernal pools that have been restored.

Upland Vegetation⁵

Open Prairie Upland Herbaceous Vegetation (Specific Management Unit):

- 1) Native species relative percent plant cover is at least 25%;
- 2) Medusahead (*Taeniantherum caput-medusae*) relative percent cover is no more than 25%;
- 3) Non-native invasive species (excluding Medusahead) relative percent plant cover is no more than 25%;
- 4) At least 20-native upland herbaceous species are present; and
- 5) Less than 5% relative percent plant cover shall be comprised of woody species.

Bonus Credits for Open Prairie Vegetation (Once bonus credits are awarded, all mitigation bank credit releases are contingent on maintaining the thresholds at which bonus credits were released):⁶

⁴ Target Years (TY) are not necessarily consecutive and can be distributed over various time periods (e.g. TY2 could be 3-years after monitoring begins.

⁵ Uplands are not regulated under the Federal Clean Water Act or the Oregon Removal-Fill Law. However, the upland mounds associated with vernal pools are part of an ecosystem complex characterized by physical, chemical, and biological relationships between the vernal pools and associated uplands. For example, upland nonnative invasive silica laden Medusahead thatch at the edges of vernal pools decomposes slower than its native counterparts and favors the establishment of weedy species (such as Seaside barley) at the expense of rare plants such as Cook's lomatium and Large-flowered wooly meadowfoam. Incentives to improve the native plant community response in the uplands will benefit the colonization and sustainability of rare plants semi-dependent on vernal pools and moist micro-environments in the upland matrix.

⁶ Bonus credit criteria and amounts are intended only as placeholders for further discussion.

- 1) Native species relative percent plant cover is at least 50% (1 credit/100 acres); and
- 2) Non-native invasive species relative percent plant cover is no more than 15% (1 credit/100 acres).

Chaparral and Oak Woodland Upland Vegetation (Specific Management Unit):

- 1) Relative percent upland plant cover (includes herbaceous, shrub, tree, and exposed substrate) is comprised of native species at a minimum of 5% for target year 1 (TY1), 10% (TY2), 30% (TY3), 40% (TY4), and 50% (TY5);
- 2) Less than 5% of the relative live stem count for upland trees and shrubs should be comprised of non-native species;
- 3) At least 20 native upland species are present;
- 4) Native herbaceous upland species relative percent plant cover (including exposed substrate) is at least 25%;
- 5) Medusahead (*Taeniantherum caput-medusae*) relative percent cover (including exposed substrate) is no more than 25%;
- 6) Non-native invasive herbaceous upland species (excluding Medusahead) relative percent plant cover (including exposed substrate) is no more than 25%.
- 7) Stem density for upland native trees should be at least 80% of the stem density of native trees measured at an approved reference site.

Bonus Credits for Chaparral and Oak Woodland Upland Vegetation (Once bonus credits are awarded, all mitigation bank credit releases are contingent on meeting the thresholds at which bonus credits were released).⁷

- 1) Zero percent of the relative live stem count for upland trees and shrubs should be comprised of non-native species (1 credit/100 acres);

⁷ Bonus credit criteria and amounts are intended only as placeholders for further discussion.

- 2) Native herbaceous species relative percent plant cover is at least 50% (1 credit/100 acres); and
- 3) Non-native invasive herbaceous species relative percent plant cover is no more than 15% (1 credit/100 acres).

C. Federally Listed Species⁸

The following criteria are general indicators of the level of contribution a mitigation action or conservation bank is making in relation to the recovery status of a federally listed species relative to other mitigation actions or conservation banks. However, none should be considered as indicators of the recovery status of a federally listed species. The recovery status of each federally listed species shall be defined and evaluated by the U.S. Fish and Wildlife Service.

To qualify for mitigation credits, Agate Desert mitigation sites must demonstrate “occupancy”⁹ by threatened vernal pool fairy shrimp (VPFS)). In some cases, it may be possible to recognize a mitigation site that only contains one or more other federally listed species without the presence of VPFS. In those cases it will be the burden of the mitigation provider to explain the special circumstances that warrant such a decision. The following list contains federally listed focal species targeted for protection and sustainability at Agate Desert mitigation sites.

- 1) Cook’s lomatium (*Lomatium cookii*);
- 2) Large-flowered woolly meadowfoam present (*Limnanthes floccosa* ssp. *grandiflora*); and
- 3) Vernal Pool Fairy Shrimp – VPFS (*Branchinecta lynchi*).¹⁰

Bonus Credits for Federal Threatened and Endangered Species - Once bonus credits are awarded, all mitigation bank credit releases are contingent on meeting the thresholds at which bonus credits were released.

- 1) Cook’s lomatium (*Lomatium cookii*)
 - 200 to 2000 plants: 0.75 credit
 - > 2000 plants: 1.5 credits

⁸ These performance standards were compiled using criteria established by Environmental Science Associates in the 2007 Agate Desert Vernal Pool Functional Assessment and the best professional judgment of U.S. Fish and Wildlife Service biologists familiar with the Agate Desert ecology and rare plants.

⁹ Occupancy means at least 20% of vernal pools at a given mitigation site have adult VPFS (*Branchinecta lynchi*) present.

¹⁰ Summer dry period sampling of VPFS cysts can be used to determine their presence or absence. If cysts, juvenile, or adult VPFS are detected at any time during the monitoring period, they shall be considered to be present in that vernal pool.

- 2) Large-flowered woolly meadowfoam (*Limnanthes floccosa* ssp. *grandiflora*)
 - 200 to 2,000 plants: 0.75 credit
 - > 2,000 plants: 1.5 credits
- 3) Vernal Pool Fairy Shrimp – VPFS (*Branchinecta lynchi*)
 - > 40% of vernal pools occupied over 5-years: 1 credit

Exceptions to meeting these performance standards are allowed based on the discretion of the Fish and Wildlife Service (in coordination with the MBRT) when reviewing nearby reference sites and/or environmental variables that suggest regional causal factors (such as climate) may be influencing the monitoring data and that the data are within the expected normal variability of the region.

5. MONITORING METHODS

The purpose of monitoring is to determine if the goals of vernal pool complex protection and restoration are being accomplished and to develop and implement corrective measures, if necessary. Both mitigation site and reference site vernal pool complex habitat will be monitored. The following outlines the methods for monitoring the vernal pool complex. For more information regarding monitoring procedures see the Guidance Document at <http://www.fws.gov/oregonfwo/FieldOffices/Roseburg>.

A. Hydrology

Hydrologic monitoring is conducted to determine frequency, duration, and seasonality of vernal pool inundation. This information is used to help discern whether the vernal pool is likely to support native vernal pool species. Maximum pool depth is measured during wet season surveys for vernal pool fairy shrimp (January).

In addition, ground photographs of the vernal pools at the site will be taken twice annually, once during the peak period of inundation (January) and once during vernal pool complex plant flowering period (April through and June). The ground photographs will be used to help identify:

- 1) Areas that do not pond water;
- 2) Areas that are ponding late in the season; and
- 3) Off-site activities that may be affecting hydrology within the site. In addition, these photos can be used to help estimate the areal extent of inundation in each vernal pool.

B. Listed Species Surveys

Vernal Pool Fairy Shrimp

Mitigation site vernal pools will be sampled using a statistically representative number of samples at least once during the rainy season (December - February).¹¹ Both mitigation site vernal pools and reference site vernal pools may be sampled to discern whether regional or local factors are influencing fairy shrimp population numbers. Surveys will be conducted in compliance with Service guidelines (see Guidance Document) regarding sampling for potentially occurring fairy shrimp.

Lomatium cookii and Limnanthes floccosa ssp. grandiflora

Listed plant surveys will be conducted at the mitigation site during the early spring (between April 1 and May 15). A complete census of flowering *Lomatium cookii*, throughout the mitigation site will be performed. A complete census of *Limnanthes floccosa* ssp. *grandiflora*, at the mitigation site will be performed. A vernal pool complex habitat reference site may be visited to determine whether regional or local factors are influencing listed plant population numbers. Surveys will be conducted in compliance with Service guidelines (see Guidance Document) regarding listed plant survey methodology.

C. Vegetation

Field surveys of vernal pool complex mound (prairie and scrub-shrub) and vernal pool habitat management units will be conducted each spring during peak flowering periods (typically early May). Timing of surveys will be adjusted according to yearly rainfall and site specific conditions. Data collected from field surveys will include a species list for the diversity standards, an estimate of the relative percent cover (including exposed substrate) by species, and stem density for chaparral and oak woodland trees. Either point intercept or quadrat sampling methods can be used to collect relative percent cover data but once one or the other strategies is selected and employed, it should be consistently used throughout the monitoring life of the mitigation site or the mitigation bank on which it was initiated. However, for consistency and comparability, it is highly recommended that at the program level one vegetation monitoring and performance reporting protocol be selected and used for all the mitigation actions in the Agate Desert region. Surveys will be conducted in compliance with Service guidelines (Guidance Document) regarding plant community survey methodology.

D. Ground Photo Documentation

Ground photos of vernal pools and associated mound (prairie, chaparral, and oak woodland) habitat management units should be collected twice annually from permanent photo points. Additional photo points may be established if needed.

¹¹ Mitigation site monitors or mitigation bank site sponsors may elect to collect more samples spatially and/or temporally than minimally required if the minimum sampling does not indicate performance is met.

Conclusion

No one performance standard, especially as one as complex and variable as vernal pool occupancy by fairy shrimp, should be used to make a decision on whether a given mitigation site or mitigation bank site passes or fails its performance standards. Measurements of mitigation performance based on pre-determined performance standards should be used to *help inform agency decisions* about a site's performance *but not to dictate those decisions*. Agency decision makers should compile the results from all the measurements made and data collected at a mitigation site, supplement that information with all other available data and information sources, including agency personnel knowledge and experience, in the process on deliberating over whether a mitigation action is performing adequately. To the degree possible, interagency consensus should be reached on all mitigation performance success decisions

E. Monitoring Reports

Annual monitoring reports will be required for years 1 through 5 after initial mitigation actions, and for five years after any remedial grading. Monitoring reports will also be required in years 7 and 10 after establishment. These monitoring reports will be submitted to DSL, the Corps, and the Service.

6. PROCEDURES FOR AUTHORIZATION OF INDIVIDUAL ACTIVITIES

Applicants should submit the Joint Permit Application form to both the Corps and DSL to authorization to place fill in vernal pool wetlands or other waters of the United States, as allowed by this RGP. Prior to verifying that a specific action meets the criteria of this RGP, the Corps must complete a jurisdictional determination for the project site and any proposed mitigation site. Therefore, the application package should include a wetland delineation to facilitate the jurisdictional determination process. The Corps must also coordinate with the State Historic Preservation Office (SHPO) and appropriate American Indian Tribe to determine if the proposed action would impact cultural resources, treaty fishing access sites, usual and accustomed areas, or Traditional Cultural Properties. If cultural resource surveys have been completed for the project and/or mitigation sites, reports documenting the results of the surveys should be submitted with the application to facilitate SHPO/Tribal review. The Corps must also ensure the proposed project meets the terms and conditions of any programmatic biological opinion issued by the Service and will coordinate with that agency as necessary when making this determination.

7. SPECIAL CONDITIONS (*The following are proposed conditions for the Regional General Permit. The final conditions may change based on public comment and agency coordination.*)

- a. **Cultural Resources and Human Burials:** Permittees shall immediately notify the Portland District Regulatory Branch if at any time during the course of the work

authorized, human burials, cultural resources, or historic properties, as identified by the National Historic Preservation Act, may be affected. Notification shall be by fax (503-808-4375) within 24 hours of the discovery and in writing within 48 hours. Failure to stop work in the area of exposure until such time as the Corps has 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.

- b. **Erosion Control:** During construction, permittee shall ensure that all practicable erosion and sediment control measures are installed and maintained in good working order to prevent unauthorized discharge of materials carried by precipitation, snow melt, wind or any other conveyance mechanism into any waterways and wetlands. The permittee is referred to Oregon Department of Environmental Quality's (DEQ) *Oregon Sediment and Erosion Control Manual*, April 2005, for proper implementation of practicable sediment and erosion control measures.
- c. **Vehicle staging and use.** All vehicles and other heavy equipment will be (a) stored, fueled, and maintained in a vehicle staging area placed 150 feet or more from any stream, waterbody or wetland; (b) inspected daily for fluid leaks before leaving the vehicle staging area for operation within 50 feet of any stream, waterbody or wetland; (c) steam cleaned before operation below ordinary high water, and often as necessary during operation to remain grease free.
- d. **Inspection of the Project Site:** The permittee shall allow representatives of the Corps to inspect the authorized activity to confirm compliance with the general permit terms and conditions. A request for access to the site will normally be made sufficiently in advance to allow a property owner or representative to be on site with the agency representative making the inspection.
- e. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
- f. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
- g. **Endangered Species.** Projects occurring in areas with listed species under the regulatory authority of the Service must meet the applicable terms and conditions of the opinion issued by that agency.
- h. **Hazardous, Toxic, and Waste Materials.** Petroleum products, chemicals, fresh cement, construction debris, or other deleterious waste materials shall not be allowed to enter waterways or wetlands.

8. LIMITS OF THIS AUTHORIZATION

- a. This general permit does not obviate the need to obtain other Federal, state or local authorizations required by law.
- b. This general permit does not grant any property rights or exclusive privileges.
- c. This general permit does not authorize any injury to the property or rights of others.
- d. This general permit does not authorize interference with any existing or proposed Federal project.

9. 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.

10. REEVALUATION OF PERMIT DECISION

The District Engineer may reevaluate this general permit at any time, and, if appropriate, suspend, modify, or revoke this permit as provided in 33 CFR 325.7. The District Engineer may also suspend, modify, or revoke authorization under this general permit for any specific geographic area, class of activities, or class of waters within the state of Oregon.

This general permit will be reviewed on an annual basis to determine whether the projects authorized by this general permit result in no more than minimal effects, both individually and cumulatively, and to ensure that the terms and conditions of this permit are being observed. The District Engineer will invite the participation of other interested federal and state agencies in this review. If this review concludes that changes in permit terms or conditions are warranted, modification of the permit will be proposed as provided in 33 CFR 325.7, including public notice and opportunity for comment.

Activities authorized under this general permit 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

11. EXPIRATION OF THIS AUTHORITY

This general permit will expire five years from the date on which it becomes effective or until 60 acres of vernal pool wetlands (300 acres of vernal pool habitat complex) have been impacted, whichever occurs first. This permit may be extended beyond these limitations if the inter-agency team determines that doing so will benefit the long-term conservation of vernal pool wetlands, species, and associated resources.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Lawrence C. Evans
Chief, Regulatory Branch

(Date)