

~~Guide Sheet 1: Criteria that excludes wetlands from serving as a treatment or flow control BMP/facility~~

~~The following types of wetlands are not suitable as a treatment or flow control BMPs/facilities. Engineering structural or hydrologic changes within the wetland itself to improve stormwater flows and water quality are not allowed. Do not increase or decrease the water regime in these wetlands beyond the prescribed limits. Provide these wetlands with the maximum protection from urban impacts:~~

- ~~1. The wetland is currently a Category I wetland because of special conditions (forested, bog, estuarine, Natural Heritage, coastal lagoon).~~
- ~~2. The wetland provides a high level of many functions. These are Category I and II wetlands as determined by the Washington State Wetland Rating System of Western Washington.~~
- ~~3. The wetland provides habitat for threatened or endangered species. Determining whether or not the conserved species will be affected by the proposed project requires a careful analysis in relation to the anticipated habitat changes. Consult with the appropriate agencies with jurisdiction over the specific threatened or endangered species on the site.~~

~~If a wetland type listed above needs to be included in a stormwater system then this activity is considered an impact. It will be treated as any other impact and will need to be mitigated according to the rules for wetland mitigation. Project proponents will have to demonstrate that they have done everything to avoid and minimize impacts before proceeding to compensatory mitigation.~~

~~The wetlands listed above cannot receive flows from a stormwater system unless the criteria in Book 1, Figure 1.5 are met.~~

~~Guide Sheet 2: Criteria for including wetlands as a treatment or flow control BMP/facility~~

~~A wetland can be physically or hydrologically altered to meet the requirements of a treatment or flow control BMP/facility if ALL of the following criteria are met:~~

~~**Modifications that alter the structure of a wetland or its soils will require permits. Existing functions and values that are lost would have to be compensated/replaced.**~~

- ~~1. It is classified in Category IV in the “Washington State Wetland Rating System of Western Washington,” or a Category III wetland with a habitat score of 19 points or less.~~
- ~~2. You can demonstrate that there will be “no net loss” of functions and values of the wetland as a result of the structural or hydrologic modifications done to provide control of runoff and water~~

quality. This includes the impacts from the machinery used for the construction. Heavy equipment can often damage the soil structure of a wetland. However, the functions and values of degraded wetlands may sometimes be increased by such alterations and thus would be self-mitigating. Functions and values that are not replaced on site will have to be mitigated elsewhere.

- a. Modifications that alter the structure of a wetland or its soils will require permits. Check with the agency(ies) issuing the permits for the modification(s) to determine which method to use to establish “no net loss.”
 - b. A wetland will usually sustain fewer impacts if the required storage capacity can be met through a modification of the outlet rather than through raising the existing overflow.
3. The wetland does not contain a breeding population of any native amphibian species.
 4. The hydrologic functions of the wetland can be improved as outlined in questions 3,4,5 of Chart 4 and questions 2,3,4 of Chart 5 in the “Guide for Selecting Mitigation Sites Using a Watershed Approach,” (available here: <http://www.ecy.wa.gov/biblio/0906032.html>); or the wetland is part of a priority restoration plan that achieves restoration goals identified in a Shoreline Master Program or other local or regional watershed plan.
 5. The wetland lies in the natural routing of the runoff, and the discharge follows the natural routing.

Definitions

The following terms are applicable only to this appendix (Appendix 1-H).

Baseline sampling	Sampling performed to define the existing environmental and biological conditions present before any modification occurs.
Bioengineering	Bioengineering for streams and wetlands -- The use of living and nonliving plant materials in combination with natura and synthetic support materials for slope stabilization, erosion reduction, and vegetative establishment.
Buffer	The area (either upland, open water, or another wetland) that surrounds a wetland and that reduces adverse impacts to it from adjacent development.
Constructed wetland	A wetland intentionally created from a non-wetland site.
Degraded wetland	A wetland whose functions and values have been reduced as a result of human activities
Enhancement	The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or

wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

- Estuarine wetland** — Generally, a vegetated wetland where the salinity of the surface or pore waters is greater than 0.5 parts per thousand.
- Functions** — The ecological (physical, chemical, and biological) processes or attributes of a wetland. Functions are often defined in terms of the processes that provide value to society, but they can be defined on processes that are not value based. Wetland functions include food chain support, provision of ecosystem diversity and fish and wildlife habitat, flood flow alteration, ground water recharge and discharge, water quality improvement, and soil stabilization.
- Hydrodynamics** — The science involving the energy and forces acting on water or other liquids and the resulting impact on the motion of the liquid.
- Hydroperiod** — The seasonal occurrence of flooding and/or soil saturation; encompasses the depth, frequency, duration, and seasonal pattern of inundation.
- Invasive plant species** — Opportunistic plant species (either native or non-native) that colonize disturbed ecosystems and come to dominate the plant community in ways that are seen by us as reducing the values provided by the previous plant community. Most often, opportunistic plants are considered invasive if they reduce the value of an area as habitat for valuable species.
- Landscape unit** — An area of land that has a specified boundary used for planning purposes that defines an area of interrelated physical, chemical, and biological processes. A watershed or drainage basin is a common type of landscape unit. A ground water aquifer is another type of landscape unit.
- Modified wetland** — A wetland whose physical, hydrological, or water quality characteristics have been purposefully altered for a management purpose, such as by dredging, filling, forebay construction, and inlet or outlet control.
- On-site** — An action (here, for stormwater management purposes) taken within the property boundaries of the site to which the action applies.
- Post-project** — The conditions present across a landscape after a specific stormwater management project (e. g., raising the outlet, building an outlet control structure) are placed in the wetland or a land use change that occurs in the landscape unit that will potentially affect the wetland.
- Pre-project** — The conditions present across a landscape before a specific stormwater management project (e. g., raising the outlet, building an

outlet control structure) are placed in the wetland or a land use change occurs in the landscape unit that will potentially affect the wetland.

Redevelopment — Conversion of an existing development to another land use, or addition of a material improvement to an existing development.

Regional — An action (here, for stormwater management purposes) that involves more than one discrete property.

Re-establishment — Actions performed to reestablish wetland functional characteristics and processes that have been lost by alterations, activities, or catastrophic events in an area that no longer meets the definition of a wetland.

Values — Wetland processes or attributes that are valuable or beneficial to society (also see [Functions](#)). Wetland values include support of commercial and sport fish and wildlife species, protection of life and property from flooding, recreation, education, and aesthetic enhancement of human communities.

Wetlands — Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands. (Waterbodies not included in the definition of wetlands as well as those mentioned in the definition are still waters of the state.)

Minimum Requirement 8 Review Checklist

Minimum Requirement 8 Checklist

Note: An additional Wetland Determination maybe required for wetlands that are not located on the project site.

A. Is there a direct or indirect stormwater discharge to a wetland?

Yes _____ — **Go on to Question B**

No _____ — **Stop**

B. Is the wetland being included in a treatment or flow control BMP/Facility?

Yes _____ — **Comply with Guide Sheets 1 and 2 in Appendix 1-K. Stop**

No _____ — **Go on to Question C.**

C. Complete a Wetland Rating Form for the receiving wetland using the Washington State Wetland Rating System for Western Washington. Is the wetland classified by the rating form as Category I or Category II?

Yes _____ — **Complete the checklist below**

No _____ — **Stop**

D. Hydroperiod Analysis per Section 1.5.8

Monthly change in total discharge volume is 15% or less (per the WWHM); and

Change in total discharge volume from any single precipitation event is 20% or less (per the WWHM). _____ — **Stop**

Either discharge threshold exceeded. _____ — **Go on to Section E**

E. Minimum Requirement 8 is not met