

SECTION 14.610 Natural Resources (SMA Only)

A. Water Resources (Wetlands, Streams, Ponds, Lakes, and Riparian Areas)

1. Purpose - Protect and enhance the quantity and quality of water resources and their functions.
2. All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered.
 - a. All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in (2)(a) and (b) below. These buffer zones are measured horizontally from a wetland, stream, lake, or pond boundary as defined below.
 - (1) All buffer zones shall be retained undisturbed and in their natural condition, except as permitted with a Mitigation Plan as described in E below.
 - (2) Buffer zones shall be measured outward from the bank full flow boundary for streams, the high water mark for ponds and lakes, the normal pool elevation for the Columbia River, and the wetland delineation boundary for wetlands on a horizontal scale that is perpendicular to the wetlands, stream, pond or lake boundary. On the main stem of the Columbia River above Bonneville Dam, buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer zone widths shall be required:
 - (a) A minimum 200 foot buffer on each wetland, pond, lake, and each bank of a perennial or fish bearing stream, some of which can be intermittent.
 - (b) A 50-foot buffer zone along each bank of intermittent (including ephemeral), non-fish bearing streams.
 - (c) Maintenance, repair, reconstruction and realignment of roads and railroads within their rights-of-way shall be exempted from the wetlands and riparian guidelines upon demonstration of all of the following:
 - i. The wetland within the right-of-way is a drainage ditch not part of a larger wetland outside of the right-of-way.

- ii. The wetland is not critical habitat.
- iii. Proposed activities within the right-of-way would not adversely affect a wetland adjacent to the right-of-way.

(3) The buffer width shall be increased for the following:

- (a) When the channel migration zone exceeds the recommended buffer width, the buffer width shall extend to the outer edge of the channel migration zone.
- (b) When the frequently flooded area exceeds the recommended riparian buffer zone width, the buffer width shall be extended to the outer edge of the frequently flooded area.
- (c) When an erosion or landslide hazard area exceeds the recommended width of the buffer, the buffer width shall be extended to include the hazard area.

(4) Buffer zones can be reconfigured if a project applicant demonstrates all of the following:

- (a) the integrity and function of the buffer zones is maintained,
- (b) the total buffer area on the development proposal is not decreased,
- (c) the width reduction shall not occur within another buffer, and
- (d) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(5) Requests to reconfigure buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant

- (a) identifies the precise location of the sensitive wildlife/plant or water resource,
- (b) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and
- (c) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water

resource and its long term function.

- (6) The County shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the project file. Based on the comments from the state and federal agencies, the County will make a final decision on whether the reconfigured buffer zones are justified. If the final decision contradicts the comments submitted by the federal and state agencies, the County shall justify how it reached an opposing conclusion.
- b. When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.
 - c. The applicant shall be responsible for identifying all water resources and their appropriate buffers. (see above)
 - d. Wetlands Boundaries shall be delineated using the following:
 - (1) The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U. S. Department of the Interior 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.
 - (2) Some wetlands may not be shown on the wetlands inventory or soil survey maps. Wetlands that are discovered by the local planning staff during an inspection of a potential project site shall be delineated and protected.
 - (3) The project applicant shall be responsible for determining the exact location of a wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the '1987 Corps of Engineers Wetland Delineation Manual (on-line Edition)'.
 - (4) All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.
 - e. Stream, pond, and lake boundaries shall be delineated using the bank full flow boundary for streams and the high water mark for ponds and lakes. The project applicant shall be responsible for determining the exact location of the appropriate boundary for the water resource.
 - f. The County may verify the accuracy of, and render adjustments to, a bank full flow, high water mark, normal pool elevation (for the Columbia River), or

wetland boundary delineation. If the adjusted boundary is contested by the project applicant, the County shall obtain professional services, at the project applicant's expense, or the County will ask for technical assistance from the Forest Service to render a final delineation.

- g. Buffer zones shall be undisturbed unless the following criteria have been satisfied:

- (1) The proposed use must have no practicable alternative as determined by the practicable alternative test.

Those portions of a proposed use that have a practicable alternative will not be located in wetlands, stream, pond, lake, and riparian areas and/or their buffer zone.

- (2) Filling and draining of wetlands shall be prohibited with exceptions related to public safety or restoration/enhancement activities as permitted when all of the following criteria have been met:

(a) A documented public safety hazard exists or a restoration/enhancement project exists that would benefit the public and is corrected or achieved only by impacting the wetland in question, and

(b) Impacts to the wetland must be the last possible documented alternative in fixing the public safety concern or completing the restoration/enhancement project, and

(c) The proposed project minimizes the impacts to the wetland.

- (5) Unavoidable impacts to wetlands and aquatic and riparian areas and their buffer zones shall be offset by deliberate restoration and enhancement or creation (wetlands only) measures as required by the completion of a Mitigation Plan as described in E below.

B. Wildlife and Plants

1. Purpose

- a. Protect (ensure that new uses do not adversely affect, including cumulative effects) and enhance the wildlife and plant diversity of the Gorge.
- b. Encourage the protection of plant species that are classified as "List 3 (Review)" or "List 4 (Watch)" by the Oregon Natural Heritage Program.
- c. Ensure that new uses do not adversely affect natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources.

2. All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered.

- a. Protection of sensitive wildlife/plant areas and sites shall begin when proposed new developments or uses are within 1000 ft of a sensitive wildlife/plant site and/or area.

Sensitive Wildlife Areas and endemic plants are those areas depicted in the wildlife inventory and listed in the Priority Habitats Table below, including all Priority Habitats listed in this Chapter. The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.

- b. The County shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the Forest Service and Oregon Department of Fish and Wildlife and Oregon Natural Heritage Program for plant issues.
- c. The Forest Service wildlife biologists and/or botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:

(1) Identify/verify the precise location of the wildlife and/or plant area or site,

(2) Determine if a field survey will be required,

(2) Determine, based on the biology and habitat requirements of the affected wildlife/plant species, if the proposed use would compromise the integrity and function of or result in adverse affects (including cumulative effects) to the wildlife or plant area or site. This would include considering the

time of year when wildlife or plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season, and

(4) Delineate the undisturbed 200 ft buffer on the site plan for sensitive plants and/or the appropriate buffer for sensitive wildlife areas or sites, including nesting, roosting and perching sites.

(a) Buffer zones can be reconfigured if a project applicant demonstrates all of the following:

- i. the integrity and function of the buffer zones is maintained,
- ii. the total buffer area on the development proposal is not decreased,
- iii. the width reduction shall not occur within another buffer, and
- iv. the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(b) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant,

- i. identifies the precise location of the sensitive wildlife/plant or water resource,
- ii. describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and
- iii. demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

(c) The County shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the County will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the County shall justify how it reached an opposing conclusion.

d. The County, in consultation with the State and federal wildlife biologists

and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse affects to the wildlife or plant area or site:

- (1) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington Department of Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander (Rodrick and Milner 1991).
- (2) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.
- (3) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.
- (4) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.
- (5) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.
- (6) The site plan is consistent with the "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000).
- (7) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.
- (8) The site plan illustrates that new developments and uses, including bridges, culverts, and utility corridors, shall not interfere with fish and wildlife passage.
- (9) Maintain, protect, and enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands) as listed on the following Priority Habitats Table. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are

considered in documenting integrity and function.

PRIORITY HABITATS TABLE	
Priority Habitats	Criteria
Aspen stands	High fish and wildlife species diversity, limited availability, high vulnerability to habitat alteration.
Caves	Significant wildlife breeding habitat, limited availability, dependent species.
Old-growth forest	High fish and wildlife density, species diversity, breeding habitat, seasonal ranges, and limited and declining availability, high vulnerability.
Oregon white oak woodlands	Comparatively high fish and wildlife density, species diversity, declining availability, high vulnerability
Prairies and steppe	Comparatively high fish and wildlife density, species diversity, important breeding habitat, declining and limited availability, high vulnerability.
Riparian	High fish and wildlife density, species diversity, breeding habitat, movement corridor, high vulnerability, dependent species.
Wetlands	High species density, high species diversity, important breeding habitat and seasonal ranges, limited availability, high vulnerability.
Snags and logs	High fish and wildlife density, species diversity, limited availability, high vulnerability, dependent species.
Talus	Limited availability, unique and dependent species, high vulnerability.
Cliffs	Significant breeding habitat, limited availability, dependent species.
Dunes	Unique species habitat, limited availability, high vulnerability, dependent species.

e. The wildlife/plant protection process may terminate if the County, in consultation with the Forest Service and state wildlife agency or Heritage program, determines

(1) the sensitive wildlife area or site is not active, or

- (2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and
 - (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the local government shall incorporate them into its development review order and the wildlife/plant protection process may conclude.
- f. If the above measures fail to eliminate the adverse affects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test in D below, and prepare a Mitigation Plan pursuant to E below to offset the adverse effects by deliberate restoration and enhancement.
 - g. The County shall submit a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The County shall include all comments in the record of application and address any written comments submitted by the state and federal wildlife agency/heritage programs in its development review order.

Based on the comments from the state and federal wildlife agency/heritage program, the County shall make a final decision on whether the proposed use would be consistent with the wildlife/plant policies and guidelines. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the County shall justify how it reached an opposing conclusion.

- h. The County shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a sensitive wildlife/plant area or site.

C. Soil Productivity

Soil productivity shall be protected using the following criteria:

1. A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.
2. New developments and land uses shall control all soil movement within the area shown on the site plan.
3. The soil area disturbed by new development or land uses, except for new cultivation, shall not exceed 15 percent of the project area.
4. Within 1 year of project completion, 80 percent of the project area with surface disturbance shall be established with effective native ground cover species or other soil-stabilizing methods to prevent soil erosion until the area has 80 percent vegetative cover.

D. Practicable Alternative Test

An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes.

A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:

1. The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.
2. The basic purpose of the use cannot be reasonably accomplished by reducing its proposed size, scope, configuration, or density, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.
3. Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the proposed use. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a Management Plan amendment to demonstrate that practicable alternatives do not exist.

E. Mitigation Plan

1. Mitigation Plan shall be prepared when:
 - a. The proposed development or use is within a buffer zone (wetland, pond, lakes, riparian areas, wildlife or plant areas and/or sites)
 - b. There is no practicable alternative according to D below, Practicable Alternative Test.
2. In all cases, Mitigation Plans are the responsibility of the applicant and shall be prepared by an appropriate professional (botanist/ecologist for plant sites, a wildlife/fish biologist for wildlife/fish sites, and a qualified professional for water resource sites).
3. The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources, and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.
4. The applicant shall submit the mitigation plan to the County. The County shall submit a copy of the mitigation plan to the Forest Service, and appropriate state agencies. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the County shall justify how it reached an opposing conclusion.
5. A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation.
6. Mitigation plans shall include maps, photographs, and text. The text shall:
 - a. Describe the biology and/or function of the sensitive resources (eg. Wildlife/plant species, or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required. Reference published protection and management guidelines.
 - b. Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the sensitive resources. Include the size, scope, configuration, or density of new uses being proposed within the buffer zone.

- c. Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for examples, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).
 - d. Show how restoration, enhancement, and replacement (creation) measures will be applied to ensure that the proposed use results in minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats.
 - e. Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the County, appropriate state agencies, and Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.
7. At a minimum, a project applicant shall provide to the County a progress report every 3-years that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor all mitigation progress.
8. A final monitoring report shall be submitted to the County for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The County shall submit copies of the monitoring report to the Forest Service; who shall offer technical assistance to the County in helping to evaluate the completion of the mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the restoration and enhancement guidelines.
9. Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:
 - a. Restoration and enhancement efforts shall be completed no later than one year after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.
 - b. All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques

shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.

- c. Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.
- d. If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the County, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.
- e. Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods.

Replacement shall occur as close to the original plant site as practicable. The project applicant shall ensure that at least 75 percent of the replacement plants survive 3 years after the date they are planted

- f. Nonstructural controls and natural processes shall be used to the greatest extent practicable.
 - (1) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.
 - (2) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as demonstrated by the 'Practical Alternative Test'.
 - (3) Fish passage shall be protected from obstruction.
 - (4) Restoration of fish passage should occur wherever possible.
 - (5) Show location and nature of temporary and permanent control measures that shall be applied to minimize erosion and sedimentation when riparian

areas are disturbed, including slope netting, berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.

- (6) Groundwater and surface water quality will not be degraded by the proposed use. Natural hydrologic conditions shall be maintained, restored, or enhanced in such a manner that replicates natural conditions, including current patterns (circulation, velocity, volume, and normal water fluctuation), natural stream channel and shoreline dimensions and materials, including slope, depth, width, length, cross-sectional profile, and gradient.
- (7) Those portions of a proposed use that are not water-dependent or that have a practicable alternative will be located outside of stream, pond, and lake buffer zones.
- (8) Streambank and shoreline stability shall be maintained or restored with natural revegetation.
- (9) The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

Restoration: 2: 1

Creation: 3: 1

Enhancement: 4: 1

- g. Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the County to ensure compliance. The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the County to help evaluate such reports and any subsequent activities associated with compliance.
- h. Wetland restoration/enhancement can be mitigated successfully by donating appropriate funds to a non-profit wetland conservancy or land trust with explicit instructions that those funds are to be used specifically to purchase protection easements or fee title protection of appropriate wetlands acreage in or adjacent to the Columbia River Gorge meeting the ratios given above in (f)(9) above. These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.