

CHAPTER

3

Natural Resources

Climate, geology, soils, and other environmental factors combine to make the Gorge rich in **natural resources**. For this chapter, **natural resources** mean **wetlands, streams, ponds and lakes, riparian areas, wildlife and wildlife habitat, rare plants,** and Natural Areas.

While it is helpful to address **natural resources** in a stand-alone chapter, these resources are also essential components of protected scenic, cultural, and recreation resources, as well as the economy of the area. For example, **traditional use areas** for fishing and gathering plants may require additional consideration as **tribal treaty rights**.

The diverse ecosystems of the Gorge foster nearly 1,000 **native** species of wildflowers, including many species that are listed as endangered, threatened, or sensitive. Several species do not occur outside the Gorge region (**endemic**).

In addition to **rare plants**, many significant plant communities, or Natural Areas, occur in the Gorge. Forty-five Natural Areas are designated: 24 in Oregon and 21 in Washington (See Appendix/MAP X).

They range from **old growth** forests in Multnomah Basin in Multnomah County

to bunchgrass prairies in the Columbia Hills of Klickitat County.

The Natural Areas include some **traditional use areas** of the Tribes that implement their treaty rights in the National Scenic Area.

Among the important water resources in the Gorge are more than a dozen cold water refuge areas that provide summer migrating salmonid species thermal respite from warmer Columbia River mainstem water.

NATIONAL SCENIC AREA ACT PROVISIONS

The National Scenic Area Act directs the Gorge Commission and the Forest Service to inventory, protect, and enhance **natural resources**. New residential and commercial development, mineral operations, and other development may not adversely affect **natural resources** [Section 6(d)(3)].

The National Scenic Area Act also requires the Management Plan to protect and enhance open spaces [Section 6(d)(3)]. Open Space designations in the GMA and SMA include "fish and wildlife habitat; lands which support plant species that are **endemic** to the National Scenic Area or which are listed as rare,

threatened, or endangered species pursuant to State or Federal Endangered Species Acts; ecologically and scientifically significant Natural Areas;. . . water areas and wetlands . . .” [Section 2(l)]. Applicable policies and guidelines are located in Part II Chapter 3 **Open Space**.

KEY ISSUES

New development and land uses have the potential to destroy, displace, degrade, or enhance **natural resources**. Development in the National Scenic Area is carefully directed to protect **natural resources** from overuse, destruction, disturbance and fragmentation. Guidelines that require Best Management Practices and resource protection policies are applied to development activities to prevent and minimize adverse effects to **natural resources**.

Development can threaten functioning natural systems in many ways. For example, improper grading can cause sedimentation into **streams** and encourage the spread of invasive species; new development can disturb and displace wildlife; and the removal of trees can degrade **stream** function. Cumulative effects of development across an area may increase the potential for population-level impacts to plants, wildlife, and systems.

Natural resources are protected from impacts of development by requiring avoidance and buffers for natural features. The National Scenic Area also requires minimum **parcel** sizes and limits new buildings and uses on the landscape.

Private lands play an important role in maintaining **natural resources**. Spatial

planning tools and web-based maps allow landowners and planners to identify known **natural resources** early in the project planning process. The National Scenic Area creates a unique relationship between resource agencies; local planners have access to state and federal agency expertise, while these agencies have new opportunities to support conservation on private lands.

There are numerous federal, state, and local laws that protect **natural resources** in different ways. This Chapter aims to ensure that technical review and expert recommendations inform all land use decisions in the National Scenic Area. The Management Plan aims to achieve consistency across two states and six counties, and to protect **natural resources** that are not protected under other existing regulations across all land ownerships.

[Staff recommends inserting language here about climate change impacts, to be developed following future Commission workshop(s)]

OVERVIEW OF NATURAL RESOURCES PROVISIONS

The natural resource objectives, policies, and guidelines for the GMA are divided into three sections: **water resources** (**wetlands**; **streams**, ponds, lakes, and **riparian areas**); wildlife habitat; and **rare plants**. They regulate most uses, except activities allowed outright and **forest practices** that are administered by each state’s Forest Practices Act.

The SMA provisions regulate most activities, including forest practices. Goals and policies for water resources are followed by those for wildlife and plants. Guidelines for water resources, wildlife, plants and soil productivity complete the SMA **natural resources** provisions.

Several tools are used to protect **natural resources** in the GMA and SMA. The provisions require an applicant to avoid **adversely affecting** natural resources. The guidelines require leaving a natural buffer zone around water resources. In the GMA, exceptions are made for **water-related** and **water-dependent** uses, if there is no **practicable** alternative and adequate protection of the resource is provided. Limited review uses that are not water-dependent require additional approval criteria.

Site-specific plans are required for development proposed near sensitive wildlife sites. If habitat would be **adversely affected** by new development, resource rehabilitation and mitigation are required. New fencing in winter range habitat is designed to allow wildlife safe passage through the landscape.

The guidelines protect **rare plants** by ensuring that new development and uses avoid plant sites and their adjacent habitat. New development is prohibited in the buffer area, though variances may be made in the GMA if the buffer would deny all reasonable use of a **parcel**.

Most Natural Areas are designated Open Space; guidelines for this designation are found in Part II, Chapter 3: Open Space. In the GMA, several Natural Areas are designated Agriculture- Special. In this designation, existing livestock grazing is allowed, new grazing must be reviewed, and cultivation is prohibited to protect plant communities. Guidelines for the Agriculture-Special designation are found in Part II, Chapter 1: Agricultural Land.

GMA PROVISIONS

WATER RESOURCES: WETLANDS, STREAMS, PONDS, LAKES, AND RIPARIAN AREAS

GMA Goals: Water Resources

1. Achieve no overall net loss of **wetlands** acreage and functions.
2. Increase the quantity and quality of **wetlands**.
3. Protect water quality, natural drainage, and fish and wildlife habitat of **streams**, ponds, lakes, and **riparian areas**.
4. Enhance aquatic and **riparian areas**.

GMA Objective: Water Resources

1. Promote public programs that offer incentives for landowners to protect and enhance water resources. The Gorge Commission shall provide information to landowners whose property contains or is adjacent to water resources. It shall inform landowners about the values of these features and the rationale for regulating new uses in water resources and buffer zones, including cultivation. The Commission shall provide relevant information about available funding opportunities or technical services.

GMA Policies: Wetlands

1. The **wetlands** goals, policies, and guidelines in the Management Plan shall not apply to the main stem of the Columbia River. The Gorge Commission will rely on the applicable federal and state laws to protect **wetlands** in the Columbia River, including the U.S. Clean Water Act, Washington State Environmental Policy Act, Washington Hydraulic Code, and Oregon Removal-Fill Act.

The main stem of the Columbia River is defined by the **Ordinary High Water Mark** or Normal Pool Elevation depicted on the map titled “Boundary Map Columbia River Gorge National Scenic Area,” numbered NSA-001, and dated September 1986. Maps are available at county planning departments and Commission and Forest Service offices. For the Management Plan, backwaters and isolated water bodies created by **roads** and railroads are not part of the main stem of the Columbia River.

2. All **wetlands**, regardless of their size or functions, warrant protection from new uses that may alter or destroy **wetlands functions**. This can include altered or manmade features that are delineated using the procedures specified in *Corps of Engineers Wetlands Delineation Manual* Wetlands Research Program Technical Report Y-87-1, on-line edition, and applicable Regional Supplements.
3. An undisturbed buffer should be preserved around **wetlands** to protect and enhance **wetlands functions** and associated **uplands**. Uses that may impact **wetlands** acreage and functions may be allowed, subject to compliance with guidelines for the protection

of scenic, natural, cultural, and recreation resources and the applicable approval criteria in this section.

4. New uses shall be sited to avoid **wetlands** to the greatest extent **practicable**. New uses that are not **water-dependent** or **water-related** may be allowed in **wetlands** when **practicable** alternatives do not exist.
5. Impacts to **wetlands** shall be allowed only when all **practicable** measures have been applied to minimize those impacts that are unavoidable and in the public interest.
6. A project applicant shall be required to provide applicable **wetlands** buffer zones and to offset unavoidable impacts to **wetlands** that result from their actions by **restoring, creating, or enhancing wetlands** as specified in the Management Plan.
7. Project proposals affecting **wetlands** or **wetlands** buffer zones shall be coordinated with federal and state agencies that regulate new uses in **wetlands** or **wetlands** buffer zones and comply with applicable local, state, and federal laws, policies and regulations.
10. **Enhancement** of **wetlands** not associated with any other project proposal may be allowed, if such efforts comply with the **wetlands** provisions in the Management Plan. **Enhancement** efforts shall be conducted pursuant to a written plan consistent with the **Wetlands Compensation Plan** requirements in this section.

All wetlands compensation plans must be approved by the local government, after consultation with federal and state agencies with jurisdiction over **wetlands**.

GMA Policies: Streams, Ponds, Lakes, Riparian Areas

1. The water resources goals, policies and guidelines in the Management Plan shall not apply to those portions of the main stem of the Columbia River that adjoin the Urban Areas. The Gorge Commission will rely on the applicable federal and state laws to protect those portions of the Columbia River that adjoin the Urban Areas. These policies are not intended to impede or prevent implementation of Tribes' treaty rights in their ceded lands and aboriginal territories.
2. Proposed uses adjacent to **streams**, ponds, and lakes should preserve an undisturbed buffer zone that is wide enough to protect aquatic and **riparian areas**. Uses with no **practicable** alternative that may affect water quality, natural drainage, or wildlife habitat may be allowed in **streams**, ponds, lakes, and their buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and the approval criteria in this section.
3. New uses that are not **water-dependent** or **water-related** shall be allowed in **streams**, ponds, lakes, and **riparian areas** if they are in the public interest and **practicable** alternatives do not exist.
4. **Practicable** measures shall be applied to minimize unavoidable impacts to **streams**, ponds, lakes, and **riparian areas**.
5. A project applicant shall offset unavoidable impacts to water resources and their buffer zones that result from their actions by rehabilitating or **enhancing streams**, ponds, lakes, and **riparian areas**.

6. When uses are authorized in degraded **streams**, ponds, lakes, and **riparian areas**, rehabilitation shall return the **project area** to its natural condition to the maximum extent **practicable**.
7. **Enhancement** of **streams**, ponds, lakes, and **riparian areas** not associated with any other development proposal may be allowed, if such efforts comply with the water resource provisions in this Management Plan. **Enhancement** efforts shall be conducted pursuant to a written plan consistent with the **water resources mitigation plan** section in this chapter.

All mitigation plans shall be approved by the local government, after consultation with federal and state agencies with jurisdiction over **streams**, ponds, lakes, and **riparian areas**.

8. Project proposals affecting **streams** shall be coordinated with federal and state agencies that regulate new uses in **streams** and shall comply with applicable local, state, and federal permitting requirements.

GMA Guidelines: Water Resources

Site Plans for Review Uses in Water Resources

1. In addition to the information required in all site plans, site plans for proposed uses in water resources, or their buffer zones shall include: a site plan map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail; the exact boundary of the water resource, **ordinary high water mark**, or normal pool elevation, and the buffer zone; and a description of actions that would affect the water resource.

Review Uses in Water Resources

1. The following uses may be allowed in water resources and water resource buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and "Approval Criteria for Modifications to **Serviceable** Structures and Minor **Water-Dependent** and **Water-Related** Structures in Wetlands" in this section. *(Revised: CRGC adoption 2/9/16; U.S. Sec. Ag. Concurrence 8/4/16)*
 - A. The modification, expansion, replacement, or reconstruction of **serviceable** structures, if such actions would not;
 - (1) Increase the size of an existing **structure** by more than 100 percent.
 - (2) Result in a loss of **wetlands** acreage or **functions**.
 - (3) Result in a loss of water quality, natural drainage, and fish and wildlife habitat.
 - (4) Intrude further into water resources or water resources buffer zone. New structures shall be considered intruding further into a water resource or associated buffer zone if any portion of the **structure** is located closer to the water resource or buffer zone than the existing **structure**.

- B. The construction of minor **water-related** recreation structures that are available for public use. Structures in this category shall be limited to boardwalks, observation decks; interpretative aids, such as kiosks and signs; and trails and paths, provided their surface is not constructed of impervious materials.
 - C. The construction of minor **water-dependent** structures that are placed on pilings, if the pilings allow unobstructed flow of water and are not placed so close together that they effectively convert an **aquatic area** to dry land. Structures in this category shall be limited to public and private docks and boat houses, and fish and wildlife management structures that are constructed by federal, state, or tribal resource agencies.
2. Except **uses allowed outright** and review uses in Guidelines 1A through 1H, above, proposed uses may be allowed in water resources and water resources buffer zones subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and "Approval Criteria for Other Review Uses in Water Resources" in this section.
 3. Proposed uses in water resources and their buffer zones shall be evaluated for adverse effects, including cumulative effects, and adverse effects shall be prohibited.
(Added: CRGC adoption 2/9/16; U.S. Sec. Ag. Concurrence 8/4/16)

Approval Criteria for Modifications to Serviceable Structures and Minor Water- Dependent and Water-Related Structures in Water Resources

1. The uses identified in Guideline 1 under "Review Uses," above, may be allowed only if they meet all of the following criteria:
 - A. **Practicable** alternatives for locating the **structure** outside of the water resource or buffer zone and/or minimizing the impacts of the **structure** do not exist.
 - B. All reasonable measures have been applied to ensure that the **structure** will result in the minimum feasible alteration or degradation of ecological functions, water quality, existing contour, vegetation, fish and wildlife resources, and hydrology.
 - C. The **structure** will be constructed using best management practices. Best management practices can include measures to prevent soil erosion, the introduction and spread of invasive plants and aquatic species, and other impacts to plants, wildlife, soil, and water. Boardwalks and observation decks shall be constructed using non-toxic materials to protect water quality.
 - D. Areas disturbed during construction of the **structure** will be rehabilitated to the maximum extent **practicable**.
 - E. The **structure** complies with all applicable federal, state, and local laws.

Approval Criteria for Other Review Uses in Water Resources

1. The uses identified in Guideline 1 under "Review Uses," above, may be allowed only if they meet all of the following criteria:
 - A. The proposed use is **water-dependent**, or is not **water-dependent** but has no

- practicable** alternative as determined by the **practicable alternative test** in this section.
- B. The proposed use is in the public interest as determined by the **public interest test** in this section.
- C. Measures will be applied to ensure that the proposed use results in the minimum feasible alteration or degradation of the resource. As a starting point, the following measures shall be considered when new uses are proposed in water resources or buffer zones:
- (1) Ecological functions, contour, and hydrology shall be maintained. Nonstructural controls and natural processes shall be used to the greatest extent possible.
 - (2) Construction shall occur during periods when fish and wildlife are least sensitive to disturbance. Work in **streams**, ponds, and lakes shall be conducted during the periods specified in Oregon or Washington state's published guidelines for in-water work, or as advised by the applicable Department of Fish and Wildlife.
 - (3) All vegetation shall be retained to the greatest extent **practicable**, including **wetland**, aquatic and riparian vegetation.
 - (4) Bridges, **roads**, pipelines and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.
 - (5) **Stream** channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to **streams**, ponds, lakes, and their banks. When culverts are necessary, oversized culverts with open bottoms that maintain the channel's width and grade should be used. State agencies with permitting responsibility for culverts shall be consulted.
 - (6) Temporary and permanent control measures shall be applied to minimize erosion and sedimentation when water resource areas are disturbed, such as slope netting, berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.
 - (7) Measures shall be taken to minimize the introduction or spread of invasive plants or aquatic species.
- D. Groundwater and surface-water quality will not be degraded by the proposed use.
- E. Those portions of a proposed use that are not **water-dependent** or that have a **practicable** alternative will not be located in water resources or buffer zones.
- F. The proposed use complies with all applicable federal, state, and local laws.
- G. Areas that are disturbed during construction of the proposed use will be rehabilitated to the maximum extent **practicable**.
- H. Unavoidable impacts to water resources will be offset through the deliberate **restoration, creation, or enhancement** of impacted resources. **Restoration,**

creation, and **enhancement** are not alternatives to the guidelines listed above; they shall be used only as a last resort to offset unavoidable water resource impacts.

Restoration, creation, and enhancement shall achieve no net loss of water quality, natural drainage, and fish and wildlife habitat of the affected **wetland, stream, pond, lake, and/or buffer zone**. When a **project area** has been disturbed in the past, it shall be rehabilitated to its natural condition to the maximum extent **practicable**.

When a **project area** cannot be completely restored or rehabilitated, such as when a boat launch permanently displaces aquatic and **riparian areas**, enhancement shall also be required.

The following water resource guidelines shall apply:

- (1) Impacts to **wetlands** shall be offset by **restoring** or **creating** new **wetlands** or by **enhancing** degraded **wetlands**. **Wetlands restoration** shall be the preferred approach when **wetlands** are impacted.
- (2) **Wetlands restoration, creation, and enhancement** shall be conducted in accordance with a **wetlands compensation plan**. Voluntary enhancement project applications shall be encouraged, See **Part III, Chapter 3 “Enhancement Strategies”** and **Part II, Chapter 7 “Resource Enhancement Projects”**.
- (3) **Stream restoration** and enhancement shall be conducted in accordance with a **water resources mitigation plan**. Voluntary enhancement project applications shall be encouraged, See **Part III, Chapter 3 “Enhancement Strategies”** and **Part II, Chapter 7 “Resource Enhancement Projects”**.
- (4) Water resources shall be replanted with **native** plant species that replicate the original vegetation community.
- (5) Natural hydrologic conditions shall be replicated, including current patterns, circulation, velocity, volume, and normal water fluctuation.
- (6) Natural **stream** channel and shoreline dimensions shall be replicated, including depth, width, length, cross-sectional profile, and gradient. **Riparian areas** shall be rehabilitated to their original configuration, including slope and contour.
- (7) The bed of the affected **aquatic area** shall be rehabilitated with materials appropriate for the channel and hydrologic features.
- (8) Fish and wildlife habitat features shall be replicated, including pool-riffle ratios, substrata, and structural habitat features including large woody debris and boulders.
- (9) Rehabilitation and enhancement efforts shall be completed no later than 90 days after the water resource or buffer zone has been altered or destroyed, or as soon thereafter as is **practicable**.
- (10) The size of replacement **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

- (11) Replacement **wetlands** shall replicate the functions of the **wetlands** that will be altered or destroyed such that no net loss of **wetlands** functions occurs.
- (12) Replacement **wetlands** should replicate the type of **wetland** that will be altered or destroyed. If this standard is not feasible or practical because of technical constraints, a **wetland** type of equal or greater benefit may be substituted, provided that no net loss of **wetlands** functions occurs.
- (13) **Wetlands restoration, creation, or enhancement** should occur within 1,000 feet of the affected **wetland**. If this guideline is not **practicable** because of physical, geologic, or technical constraints, replacement shall occur within the same watershed and as close to the altered or destroyed **wetland** as **practicable**.
- (14) **Restoration, creation, and enhancement** efforts should be completed before a water resource is altered or destroyed. If it is not **practicable** to complete all **restoration, creation, and enhancement** efforts before the water resource is altered or destroyed, these efforts shall be completed before the new use is occupied or used.
- (15) Five years after a **wetland** is **restored, created, or enhanced**, or three years after a **stream, pond, lake, or riparian area** is restored, at least 75 percent of the replacement vegetation shall survive. The project applicant shall monitor the hydrology and vegetation of the replacement water resource, provide reports, and shall take corrective measures to ensure that it conforms with the approved **wetlands compensation plan** or water resources mitigation plan and this guideline.

Rules for Delineating Wetlands Boundaries

1. The approximate location and extent of **wetlands** in the National Scenic Area is shown on the National Wetlands Inventory (U.S. Department of the Interior), as well as local wetlands inventories produced by state or local governments. In addition, the list of **hydric soils** and the soil survey maps shall be used as an indicator of **wetlands**.

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.

2. The project applicant shall be responsible for delineating wetland boundaries using the procedures specified in the *Corps of Engineers Wetlands Delineation Manual* (Wetlands Research Program Technical Report Y-87-1, on-line edition) and Regional Supplements.

All **wetlands** delineations shall be conducted by a professional who has been trained to use the federal delineation procedures.

3. The local government may verify the accuracy of, and render adjustments to, a **wetlands** boundary delineation. If the adjusted boundary delineation is contested by the project applicant, the local government shall obtain professional services to render a final delineation, at the applicant's expense.

Water Resources Buffer Zones

1. All water resources shall, in part, be protected by establishing undisturbed buffer zones as specified below.
2. Buffer zones shall be measured outward from the bank full flow boundary for **streams**, the high water mark for ponds and lakes, and the normal pool elevation for the Columbia River, and the **wetland** delineation boundary for **wetlands** on a horizontal scale that is perpendicular to the water resource boundary. On the main stem of the Columbia River above the Bonneville Dam buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer widths shall be required:

- A. The width of **wetlands**, lakes, and ponds buffer zones shall be based on the dominant vegetation community that exists in a buffer zone. The following buffer zone widths shall be required:

Forest communities:	75 feet
Shrub communities:	100 feet
Herbaceous communities:	150 feet

- (1) The dominant vegetation community in a buffer zone is the vegetation community that covers the most surface area of that portion of the buffer zone that lies between the proposed activity and the affected **wetland**. Vegetation communities are classified as forest, **shrub**, or **herbaceous**.
 - (2) A forest vegetation community is characterized by trees with an average height equal to or greater than 20 feet, accompanied by a **shrub** layer; trees must form a canopy cover of at least 40 percent and **shrubs** must form a canopy cover of at least 40 percent. A forest community without a **shrub** component that forms a canopy cover of at least 40 percent shall be considered a **shrub** vegetation community for purposes of the Management Plan.
 - (3) A **shrub** vegetation community is characterized by **shrubs** and trees that are greater than 3 feet tall and form a canopy cover of at least 40 percent.
 - (4) A **herbaceous** vegetation community is characterized by the presence of **herbs**, including grass and grasslike plants, **forbs**, ferns, and non-woody vines.
- B. **Streams** used by **anadromous** or resident fish (**tributary fish habitat**), **special streams**, intermittent **streams** that include year-round pools, and perennial **streams**: 100 feet.

- C. **Intermittent streams**, provided they are not used by **anadromous** or resident fish: 50 feet.
3. Except as otherwise allowed, water resource buffer zones shall be retained in their natural condition. When a buffer zone is disturbed by a new use, it shall be replanted with **native** plant species. The local government may require larger water resource buffers to address comments received, to protect **tribal treaty rights**, or to offset adverse effects to **natural resources**.
 4. The project applicant shall be responsible for determining the exact location of the ordinary high watermark or normal pool elevation. The local government may verify the accuracy of, and render adjustments to, an ordinary high watermark or normal pool delineation. If the adjusted boundary delineation is contested by the project applicant, the local government shall obtain professional services to render a final delineation, at the project applicant's expense.

Public Interest Test

1. The following factors shall be considered when determining if a proposed use is in the public interest:
 - A. The extent of public need for the proposed use.
 - B. The extent and permanence of beneficial or detrimental effects that the proposed use may have on the public and private uses for which the property is suited.
 - C. The functions and size of the water resource that may be affected.
 - D. The economic value of the proposed use to the general area.
 - E. The ecological value of the water resource and probable effect on public health and safety, fish, plants, and wildlife.

Wetlands Compensation Plans

1. Wetlands compensation plans shall be prepared when a project applicant is required to **restore, create, or enhance wetlands**. A written plan satisfying the guidelines in this section is also required for voluntary enhancement projects. All **wetlands** compensation plans must be approved by the local government, after consultation with federal and state agencies with jurisdiction over **wetlands**. They shall satisfy the following guidelines:
 - A. Wetlands compensation plans shall be prepared by a qualified professional hired by the project applicant. They shall provide for land acquisition, construction, maintenance, and monitoring of replacement **wetlands**.
 - B. Wetlands compensation plans shall include an ecological assessment of the **wetland** that will be altered or destroyed and the **wetland** that will be **restored, created, or enhanced**. The assessment shall include information on flora, fauna, hydrology, and **wetlands** functions.
 - C. Compensation plans shall also assess the suitability of the proposed site for establishing a replacement **wetland**, including a description of the water source

and drainage patterns, topography, wildlife habitat opportunities, and value of the existing area to be converted.

- D. Compensation plans shall provide plan view and cross-sectional, scaled drawings; topographic survey data, including elevations at contour intervals no greater than 1 foot, slope percentages, and final grade elevations; and other technical information in sufficient detail to explain and illustrate:
- (1) Soil and substrata conditions, grading, and erosion and sediment control needed for **wetland** construction and long-term survival.
 - (2) Planting plans that specify **native** plant species, quantities, size, spacing, or density; source of plant materials or seeds; timing, season, water, and nutrient requirements for planting; and where appropriate, measures to protect plants from predation.
 - (3) Water quality parameters, water source, water depths, water control structures, and water level maintenance practices needed to achieve the necessary hydrologic conditions.
- E. A 5-year monitoring, maintenance, and replacement program shall be included in all plans. At a minimum, a project applicant shall provide an annual report that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor the replacement **wetland**.
- F. A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a wetlands compensation plan.

Water Resources **Mitigation Plans**

1. Mitigation plans shall be prepared when a project applicant is required to rehabilitate or enhance a **stream**, pond, lake, and/or buffer zone. A written plan satisfying the guidelines in this section is also required for voluntary enhancement projects. Plans shall satisfy the following guidelines:
 - A. Mitigation plans are the responsibility of the project applicant; they shall be prepared by qualified professionals, such as fish or wildlife biologists.
 - B. All plans shall include an assessment of the physical characteristics and natural functions of the affected **stream**, pond, lake, and/or buffer zone. The assessment shall include hydrology, flora, and fauna.
 - C. Plans shall include plan view and cross-sectional, scaled drawings; topographic survey data, including elevations at contour intervals of at least 2 feet, slope percentages, and final grade elevations; and other technical information in sufficient detail to explain and illustrate:
 - (1) Soil and substrata conditions, grading and excavation, and erosion and sediment control needed to successfully rehabilitate and enhance the **stream**, pond, lake, and buffer zone.
 - (2) Planting plans that specify **native** plant species, quantities, size, spacing,

or density; source of plant materials or seeds; timing, season, water, and nutrient requirements for planting; and where appropriate, measures to protect plants from predation.

- (3) Water quality parameters, construction techniques, management measures, and design specifications needed to maintain hydrologic conditions and water quality.
- D. A 3-year monitoring, maintenance, and replacement program shall be included in all mitigation plans. At a minimum, a project applicant shall prepare an annual report that documents milestones, successes, problems, and contingency actions. Three years after an **aquatic area** or buffer zone is rehabilitated or enhanced, at least 75 percent of the replacement vegetation shall survive. The project applicant shall monitor the replacement vegetation and take corrective measures to meet this guideline. Photographic monitoring shall be used to monitor all rehabilitation and enhancement efforts.
 - E. A project applicant shall demonstrate sufficient fiscal, administrative, and technical competence to successfully execute and monitor a mitigation plan.

WILDLIFE HABITAT

GMA Goals: Wildlife Habitat

1. Ensure that new uses do not adversely affect Priority Habitats or sensitive wildlife sites.
 - A. Priority Habitats are identified by the Forest Service, Oregon Department of Fish and Wildlife, or Washington Department of Fish and Wildlife and listed in Table 1).
 - B. Sensitive Wildlife Sites are the locations used by species identified in 1C below for nesting, roosting, denning, or other life cycle needs.
 - C. "**Rare wildlife** species" includes species that are;
 - (1) Listed as endangered or threatened pursuant to federal or state endangered species acts,
 - (2) Listed as endangered, threatened, sensitive, or candidate by the Washington Wildlife Commission,
 - (3) Listed as sensitive by the Oregon Fish and Wildlife Commission, or
 - (4) Considered to be of special interest to the public (limited to great blue heron, osprey, golden eagle, and prairie falcon).
 - (5) Updated lists of species included in (1), (2), and (3) above can be found on the websites for the Washington Department of Fish and Wildlife and the Oregon Department of Fish and Wildlife. A list also is maintained by the USDA Forest Service – National Scenic Area Office and available at the Gorge Commission office and on its website.
2. Enhance wildlife habitat that has been altered or destroyed by past uses.

GMA Objectives: Wildlife Habitat

1. Update the wildlife inventory as new areas and sites are discovered and federal or state wildlife lists are revised. This update will be conducted by the Gorge Commission. Oregon and Washington should provide updated spatial data to Commission staff regularly or upon availability.
2. Promote public programs that offer incentives for landowners to protect and enhance wildlife habitat. The Gorge Commission shall inform landowners whose property contains a Priority Habitat or sensitive wildlife site. It shall inform landowners about the rationale for regulating new uses near sensitive wildlife sites, including cultivation, and provide relevant information about funding opportunities and technical assistance to improve sensitive wildlife sites.

GMA Policies: Wildlife Habitat

1. Newly discovered wildlife sites and wildlife species that are added to federal or state wildlife lists shall be protected.
2. To help ensure that wildlife species are not disturbed, the wildlife inventory shall be kept confidential.
3. Habitat areas of animal species that are classified as endangered, threatened, or sensitive by federal or state endangered species acts or the Washington Wildlife Commission may be designated Open Space. The guidelines in this chapter shall be used to protect other Priority Habitats and sensitive wildlife sites.
4. New dwellings, fences, and land divisions shall be limited in **deer and elk winter range**.
5. New and replacement fences in the National Scenic Area, including **deer and elk winter range** should be constructed so they do not present a major hazard to wildlife.
6. On lands designated Large-Scale or Small-Scale Agriculture, Commercial Forest Land, or Large or Small Woodland that include **deer and elk winter range** or Oregon white oak habitat, new **parcels** shall be 40 acres or larger in the west end of the National Scenic Area and 80 acres or larger in the east end of the National Scenic Area. In Oregon, the division between the west and east end of the National Scenic Area is the Hood River. In Washington, the line of division is the White Salmon River.
7. Proposed uses that would adversely affect Priority Habitats or sensitive wildlife sites shall be prohibited. Uses adversely affect wildlife habitats or sites when they compromise the integrity of a habitat or site, or occur during a time of the year when affected wildlife species are sensitive to disturbance.
8. Adequate buffer zones shall be maintained to protect Priority Habitats or sensitive wildlife sites from new uses. The width of wildlife buffer zones shall be determined on a case-by-case basis and shall reflect the biology of the affected species and the characteristics of the project site and the proposed use.
9. The size, scope, configuration, density, and timing of new uses within wildlife buffer zones shall be regulated to protect the **rare wildlife** species.
10. Site-specific management plans shall be required before most new uses will be allowed within wildlife buffer zones.
11. Rehabilitation and/or **enhancement** shall be required to offset unavoidable impacts to wildlife habitat that result from new uses.

GMA Guidelines: Wildlife Habitat

Review Uses

1. Except **uses allowed outright**, proposed uses may be allowed within 1,000 feet of a Priority Habitat or sensitive wildlife site, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and "Approval Criteria for Review Uses Near Priority Habitats and Sensitive Wildlife Sites" in this section.
2. Proposed uses within 1,000 feet of a Priority Habitat or sensitive wildlife site shall be evaluated for adverse effects, including cumulative effects, and adverse effects shall

be prohibited. (Added: CRGC adoption 2/9/16; U.S. Sec. Ag. concurrence 8/4/16)

Site Plans and Field Surveys for Review Uses Near Priority Habitats and Sensitive Wildlife Sites

1. In addition to the information required in all site plans, uses within 1,000 feet of a Priority Habitat or sensitive wildlife site shall include a map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.
2. A field survey to identify Priority Habitats or sensitive wildlife sites shall be required for
 - A. land divisions that create four or more **parcels**,
 - B. recreation facilities that contain parking areas for more than 10 cars, overnight camping facilities, boat ramps, or visitor information and environmental education facilities,
 - C. public transportation facilities that are outside improved rights-of-way,
 - D. electric facilities, lines, equipment, and appurtenances that are 33 kilovolts or greater, and
 - E. communications, water and sewer, and natural gas transmission (as opposed to distribution) lines, pipes, equipment, and appurtenances and other project related activities, except when all of their impacts will occur inside previously disturbed **road**, railroad or utility corridors, or existing developed utility sites, that are maintained annually.
3. Field surveys shall cover all areas affected by the proposed use or recreation development. They shall be conducted by a professional wildlife biologist hired by the project applicant. All Priority Habitat and sensitive wildlife sites discovered in a **project area** shall be described and shown on the site plan m

Approval Criteria for Review Uses Near Priority Habitat and Sensitive Wildlife Sites

1. Uses that are proposed within 1,000 feet of a Priority Habitat or sensitive wildlife site shall be reviewed by the Oregon Department of Fish and Wildlife or the Washington Department of Fish and Wildlife. The approximate locations of sensitive wildlife sites are maintained by the Gorge Commission, Forest Service, and state wildlife agencies. State wildlife biologists will help determine if a new use would adversely affect a Priority Habitat or sensitive wildlife site.
2. Oregon white oak shall not be removed if **practicable alternatives** exist. If no practicable alternative exists, a wildlife survey and **mitigation plan** shall be required. This criteria shall not apply to forest practices that do not violate conditions of approval for other approved uses.
3. The local government shall **submit** site plans to the Oregon Department of Fish and Wildlife or Washington Department of Fish and Wildlife. State wildlife biologists shall review the site plan and their field survey records. They shall identify/verify the precise location of the Priority Habitat or sensitive wildlife site, (2) ascertain whether the sensitive wildlife or site is active or abandoned, and (3) determine if the proposed use

may compromise the integrity of the wildlife habitat or site or occur during the time of year when wildlife species are sensitive to disturbance, such as nesting or rearing seasons. In some instances, state wildlife biologists may conduct field surveys to verify the wildlife inventory and assess the potential effects of a proposed use.

4. The following factors may be considered when site plans are reviewed:
 - A. Biology of the affected wildlife species.
 - B. Published guidelines regarding the protection and management of the affected wildlife species. The Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron. The Washington Department of Fish and Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, Oregon white oak, and the Larch Mountain salamander (Management Recommendations for Washington's Priority Species).
 - C. Physical characteristics of the subject **parcel** and vicinity, including topography and vegetation.
 - D. Historic, current, and proposed uses in the vicinity of the Priority Habitat or sensitive wildlife site.
 - E. Existing condition of the Priority Habitat or sensitive wildlife site and the surrounding habitat.
5. The wildlife protection process may terminate if the local government, in consultation with the state wildlife agency, determines (1) the sensitive wildlife site is not active, or (2) the proposed use would not compromise the integrity of the Priority Habitat or sensitive wildlife site or occur during the time of year when wildlife species are sensitive to disturbance.
6. If the local government, in consultation with the state wildlife agency, determines that the proposed use would have only minor effects on the Priority Habitat or sensitive wildlife site that could be eliminated through measures recommended by the state wildlife biologist, or by simply modifying the site plan or regulating the timing of new uses, a letter shall be sent to the project applicant that describes the effects and measures needed to eliminate them. If the project applicant accepts these recommendations, the local government shall incorporate them into its development review order and the wildlife protection process may conclude.
7. The project applicant shall prepare a **wildlife mitigation plan** if the local government, in consultation with the state wildlife agency, determines that the proposed use would adversely affect a Priority Habitat or sensitive wildlife site and the effects of the proposed use cannot be eliminated through site plan modifications or project timing.
8. The local government shall **submit** a copy of all field surveys and wildlife mitigation plans to the Oregon Department of Fish and Wildlife or Washington Department of Fish and Wildlife. The state wildlife agency will have 20 days from the date that a field survey or management plan is mailed to **submit** written comments to the local government.
9. The local government shall record and address any written comments submitted by the state wildlife agency in its development review order.

10. Based on the comments from the state wildlife agency, the local government shall make a final decision on whether the proposed use would be consistent with the wildlife policies and guidelines. If the final decision contradicts the comments submitted by the state wildlife agency, the local government shall justify how it reached an opposing conclusion.
11. The local government shall require the project applicant to revise the wildlife mitigation plan as necessary to ensure that the proposed use would not adversely affect a Priority Habitat or sensitive wildlife site.
12. In the event that any new **protected wildlife** locations are discovered during the review process, the local government shall **submit** this information to the appropriate state agency to be updated in their species databases.

Wildlife Management Mitigation Plans

1. Wildlife Mitigation plans shall be prepared when a proposed use is likely to adversely affect a Priority Habitat or sensitive wildlife site. Their primary purpose is to document the special characteristics of a project site and the habitat requirements of affected wildlife species. This information provides a basis for the project applicant to redesign the proposed use in a manner that protects Priority Habitats and sensitive wildlife sites, maximizes their development options, mitigates temporary impacts to the sensitive wildlife site, and/or buffer zone, and offsets unavoidable negative impacts to Priority Habitats and sensitive wildlife sites.
2. Wildlife Mitigation plans shall comply with the following guidelines:
 - A. Wildlife mitigation plans shall be prepared by a professional wildlife biologist hired by the project applicant.
 - B. All relevant background information shall be documented and considered, including biology of the affected species, published protection and management guidelines, physical characteristics of the subject **parcel**, past and present use of the subject **parcel**, and habitat value of the wildlife site.
 - C. Where applicable, the core habitat of the **rare wildlife** species shall be delineated. It shall encompass the sensitive wildlife site and the attributes, or **key components** that are essential to maintain the long-term use and integrity of the wildlife area or site.
 - D. A wildlife buffer zone shall be employed. It shall be wide enough to ensure that the core habitat is not adversely affected by new uses, or natural forces, such as fire and wind. Buffer zones shall be delineated on the site plan map and shall reflect the physical characteristics of the project site and the biology of the affected species.
 - E. The size, scope, configuration, or density of new uses within the core habitat and the wildlife buffer zone shall be regulated to protect the **rare wildlife** species. The timing and duration of all uses shall also be regulated to ensure that they do not occur during the time of year when wildlife species are sensitive to disturbance. The following guidelines shall apply:
 - (1) New uses shall generally be prohibited within the core habitat. Exceptions may include uses that have temporary and negligible effects,

such as the installation of minor underground utilities or the **maintenance** of existing structures. Low-intensity, nondestructive uses may be conditionally authorized in the core habitat.

- (2) Intensive uses shall be generally prohibited in wildlife buffer zones. Such uses may be conditionally authorized when a wildlife area or site is inhabited seasonally, provided they will have only temporary effects on the wildlife buffer zone and rehabilitation and/or **enhancement** will be completed before a particular species returns.
- F. Rehabilitation and/or **enhancement** shall be required when new uses are authorized within wildlife buffer zones. When a buffer zone has been altered or degraded in the past, it shall be rehabilitated to its natural condition to the maximum extent **practicable**. When complete rehabilitation is not possible, such as when new structures permanently displace wildlife habitat, **enhancement** shall also be required. **Enhancement** shall achieve no net loss of the integrity of the wildlife area or site.

Rehabilitation and **enhancement** actions shall be documented in the wildlife mitigation plan and shall include a map and text.

- G. The project applicant shall prepare and implement a 3-year monitoring plan when the affected Priority Habitat or sensitive wildlife site is occupied by a species that is listed as endangered or threatened pursuant to federal or state wildlife lists. At a minimum, the project applicant shall prepare an annual report and shall track the status of the Priority Habitat or sensitive wildlife site and the success of rehabilitation and/or **enhancement** actions.

At the end of 3 years, rehabilitation and **enhancement** efforts may conclude if they are successful. In instances where rehabilitation and **enhancement** efforts have failed, the monitoring process shall be extended until the applicant satisfies the wildlife mitigation plan guidelines.

Approval Criteria for Fences in Deer and Elk Winter Range

New fences in **deer and elk winter range** shall comply with the following guidelines:

1. New fences in **deer and elk winter range** shall be allowed only when necessary to control livestock or exclude wildlife from specified areas, such as gardens or sensitive wildlife sites. The areas fenced shall be the minimum necessary to meet the immediate needs of the project applicant.
2. New and replacement fences that are allowed in winter range shall comply with the guidelines in *Specifications for Structural Range Improvements* (Sanderson et al. 1990), as summarized below, or updated published guidance from state fish and wildlife agencies, unless the project applicant demonstrates the need for an alternative design. To allow deer and other wildlife safe passage:
 - A. The top wire shall not be more than 42 inches high.
 - B. A gap of at least 10 inches shall be maintained between the top two wires.
 - C. The bottom wire shall be at least 16 inches above the ground. It shall consist of

smooth wire.

- D. Stays, or braces placed between strands of wire, shall be positioned between fence posts where deer are most likely to cross.
3. Woven wire fences may be authorized only when a project applicant clearly demonstrates that such a fence is required to meet their specific and immediate needs, such as controlling hogs and sheep.

RARE PLANTS

GMA Goals: Rare Plants

1. Ensure that new uses do not adversely affect **rare plant** species and ecosystems that are;
 - A. **Endemic** to the Columbia River Gorge and vicinity (see Table 2),
 - B. Listed as endangered or threatened pursuant to federal or state endangered species acts, or
 - C. Designated global or state status ranks 1,2, or 3 by the Oregon Biodiversity Information Center or Washington Natural Heritage Program.

Updated lists of plant species and ecosystems included in (B) and (C) above can be found on the websites for the Oregon Biodiversity Information Center or Washington Natural Heritage Program. A list also is maintained by the USDA Forest Service – National Scenic Area Office and available at the Gorge Commission office and on its website.
2. Encourage the protection of plant species that are classified as "List 3 (Review)" or "List 4 (Watch)" by the Oregon Biodiversity Information Center or "Monitor" by the Washington Natural Heritage Program.
3. Enhance the natural habitats of **rare plant** species.

GMA Objectives: Rare Plants

1. Update the **rare plant** species inventory as new plant sites are discovered and federal or state **rare plant** lists are revised. The Gorge Commission will obtain updated data from each state when it becomes available, ensure that landowner survey information is reported to the responsible agency, and support additional inventory and survey efforts.
2. Promote public programs that offer incentives for landowners to protect and enhance **rare plants**. The Gorge Commission shall inform landowners whose property contains **rare plant** species. It shall inform landowners about the values of **rare plants** and the rationale for regulating new uses near **rare plant** sites, including cultivation.

GMA Policies: Rare Plants

1. Newly discovered **rare plant** sites and plant species that are added to federal or state **rare plant** lists shall be protected. Species that are deleted from federal or state **rare plant** lists will not require further protection.
2. The **rare plant** species inventory shall be used to identify possible conflicts between proposed uses and **rare plant** sites. Project applicants should consult the local government early in the planning process to help determine if **rare plants** exist in the **project area**.

3. When new uses are proposed near a **rare plant** site that appears in the **rare plant** species inventory, the field survey records shall be used to determine the precise location of the plant population in relation to the proposed use. If the field survey records are inadequate, a field survey shall be conducted to delineate the boundaries of the **rare plant** population.
4. **Rare Plant Buffer Zones** shall be used to ensure that new uses do not adversely affect **rare plant** species.
5. Except for **uses allowed outright**, new uses shall be prohibited within **rare plant** sites and buffer zones.
6. Landowners and agency officials shall be encouraged to avoid siting new uses on lands containing plant species listed as "Review," "Watch," or "Monitor" by the Oregon Biodiversity Information Center or Washington Natural Heritage Program.

GMA Guidelines: Rare Plants

Review Uses

1. Except **uses allowed outright**, proposed uses may be allowed within 1,000 feet of a **rare plant**, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and "**Approval Criteria for Review Uses Near Rare Plants**" in this section.
2. Proposed uses within 1,000 feet of a sensitive plant shall be evaluated for adverse effects, including cumulative effects, and adverse effects shall be prohibited. *(Added: CRGC adoption 2/9/16; U.S. Sec. Ag. concurrence 8/4/16)*

Site Plans and Field Surveys for Review Uses Near Sensitive-Rare Plants

1. In addition to the information required in all site plans, site plans for uses within 1,000 feet of a **rare plant** site shall include a map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.
2. A field survey to identify **rare plants** shall be required for
 - A. land divisions that create four or more **parcels**;
 - B. recreation facilities that contain parking areas for more than 10 cars, overnight camping facilities, boat ramps, or visitor information and environmental education facilities;
 - C. public transportation facilities that are outside improved rights-of-way;
 - D. electric facilities, lines, equipment, and appurtenances that are 33 kilovolts or greater; and
 - E. communications, water and sewer, and natural gas transmission (as opposed to distribution) lines, pipes, equipment, and appurtenances and other project related activities, except when all of their impacts will occur inside previously disturbed **road**, railroad or utility corridors, or existing developed utility sites, that

are maintained annually.

3. Field surveys shall cover all areas affected by the proposed use or recreation facility. They shall be conducted by a person with recognized expertise in botany or plant ecology hired by the project applicant. They shall be conducted when plants are expected to be flowering or most easily detectable. Field surveys shall identify the precise location of the **rare plants** and delineate a 200-foot buffer zone. The results of a field survey shall be shown on the site plan map and kept confidential by the local government.

Approval Criteria for Review Uses Near Rare Plants

1. Uses that are proposed within 1,000 feet of a **rare plant** shall be reviewed by the Oregon Biodiversity Information Center or Washington Natural Heritage Program. The approximate locations of **rare plants** are shown in the **rare plant** species inventory. State heritage staffs will help determine if a new use would invade the buffer zone of **rare plants**.
2. The local government shall **submit** site plans to the state heritage program. The state heritage staffs will review the site plan and their field survey records. They will identify the precise location of the affected plants and delineate a 200-foot buffer zone on the project applicant's site plan.
3. If the field survey records of the state heritage program are inadequate, the project applicant shall hire a person with recognized expertise in botany or plant ecology to ascertain the precise location of the affected plants.
4. The **rare plant** protection process may conclude if the local government, in consultation with the state heritage program, determines that the proposed use would be located outside of a **rare plant** buffer zone.
5. New uses shall be prohibited within **rare plant** buffer zones, except for those uses that are allowed outright.
6. If a proposed use must be allowed within a **rare plant** buffer zone in accordance with the provisions in "Variances for Setbacks and Buffers" in Part II, Chapter 7: General Policies and Guidelines, the project applicant shall prepare a protection and rehabilitation plan that complies with the guidelines in "Rare Plant Mitigation Plans" in this section.
7. The local government shall **submit** a copy of all field surveys and protection and rehabilitation plans to the Oregon Biodiversity Information Center or Washington Natural Heritage Program. The state heritage program will have 20 days from the date that a field survey is mailed to **submit** written comments to the local government.
8. The local government shall record and address any written comments submitted by the state heritage program in its development review order.
9. Based on the comments from the state heritage program, the local government will make a final decision on whether the proposed use would be consistent with the **rare plant** policies and guidelines. If the final decision contradicts the comments submitted by the state heritage program, the local government shall justify how it reached an opposing conclusion.

Rare Plant Buffer Zones

1. A 200-foot buffer zone shall be maintained around **rare plants**. Buffer zones shall remain in an undisturbed, natural condition.
2. Buffer zones may be reduced if a project applicant demonstrates that intervening topography, vegetation, manmade features, or natural plant habitat boundaries negate the need for a 200-foot radius. Under no circumstances shall the buffer zone be less than 25 feet.
3. Requests to reduce buffer zones shall be considered if a professional botanist or plant ecologist hired by the project applicant (1) identifies the precise location of the **rare plants**, (2) describes the biology of the **rare plants**, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected plants and the surrounding habitat that is vital to their long-term survival.

All requests shall be prepared as a written report. Published literature regarding the biology of the affected plants and recommendations regarding their protection and management shall be cited. The report shall include detailed maps and photographs.

4. The local government shall **submit** all requests to reduce **rare plant** buffer zones to the Oregon Biodiversity Information Center or Washington Natural Heritage Program. The state heritage program will have 20 days from the date that such a request is mailed to **submit** written comments to the local government.

The local government shall record and address any written comments submitted by the state heritage program in its development review order.

Based on the comments from the state heritage program, the local government will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the state heritage program, the local government shall justify how it reached an opposing conclusion.

Rare Plant Mitigation Plans

1. Rare Plant Mitigation Plans shall minimize and offset unavoidable impacts that result from a new use that occurs within a **rare plant** buffer zone as the result of a variance.
2. Rare Plant Mitigation Plans shall be prepared by a professional botanist or plant ecologist hired by the project applicant.
3. Construction, protection, and rehabilitation activities shall occur during the time of year when ground disturbance will be minimized and protection, rehabilitation, and replacement efforts will be maximized.
4. **Rare 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.
5. 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.

6. **Rare plants** and their surrounding habitat that will not be altered or destroyed shall be protected and maintained. Appropriate protection and **maintenance** techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control.
7. Habitat of a **rare plant** that will be affected by temporary uses shall be rehabilitated to a natural condition.
8. Protection efforts shall be implemented before construction activities begin. Rehabilitation efforts shall be implemented immediately after the plants and their surrounding habitat are disturbed.
9. Rare Plant Mitigation Plans shall include maps, photographs, and text. The text shall:
 - a. Describe the biology of **rare plant** species that will be affected by a proposed use.
 - b. Explain the techniques that will be used to protect **rare plants** and their surrounding habitat that will not be altered or destroyed.
 - c. Describe the mitigation actions that will minimize and offset the impacts that will result from a proposed use.
 - d. Include a 3-year monitoring, maintenance, and replacement program. The project applicant shall prepare and **submit** to the local government an annual report that documents milestones, successes, problems, and contingency actions.

GMA/SMA: Practicable Alternative Test

1. 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:

- A. 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.
- B. 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.
- C. 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.

SMA PROVISIONS

WATER RESOURCES (WETLANDS, STREAMS, PONDS, LAKES, AND RIPARIAN AREAS)

SMA Goal: Water Resources

1. Protect and enhance the quantity and quality of water resources and their functions.

SMA Policies: Water Resources

1. All **wetlands**, regardless of their size or functions, warrant protection from new uses that may alter or destroy **wetlands** functions.
2. The National Wetlands Inventory (U.S. Department of the Interior 1987) and the list of **hydric soils** shall be used as a general guide to the location of **wetlands**; additional **wetlands** are assumed to exist and shall be protected.
3. The exact location of **wetlands** boundaries shall be delineated using the procedures specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987 Corps of Engineers Wetland Delineation Manual, on-line edition) and applicable Regional Supplements.
4. An undisturbed buffer should be preserved around **wetlands**, **streams**, ponds, and lakes to protect and enhance their functions and associated **uplands**.
5. Uses that may impact **wetland**, **streams**, ponds, lakes, and **riparian areas** acreage and functions, water quality, natural drainage, or wildlife habitat may be allowed in their buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and the approval criteria in this section.
6. A project applicant shall minimize and offset unavoidable impacts to **aquatic areas** and their buffer zones that result from their actions by rehabilitating or **enhancing** aquatic and **riparian areas** or by **restoring**, **creating**, and **enhancing wetlands**.
7. When uses are authorized in degraded aquatic and **riparian areas**, rehabilitation shall return the **project area** to its natural condition to the maximum extent **practicable**.
8. Project proposals affecting **wetlands** shall be coordinated with federal and state agencies that regulate new uses in **wetlands**.
9. **Enhancement** of **wetlands**, **streams**, ponds, lakes, and **riparian areas** not associated with any other project proposal may be allowed, if such efforts comply with the **wetlands**, **streams**, ponds, lakes, and **riparian areas** provisions in the Management Plan. **Enhancement** efforts shall be conducted pursuant to a mitigation plan, as described in this section.
10. All **mitigation plans** must be approved by the local government, after consultation with federal and state agencies with jurisdiction over **wetlands**.
11. Partnerships with public agencies, conservation groups, and individuals are

encouraged to increase public awareness, understanding, and stewardship of **natural resources**.

12. The Special Management Area water resource buffer widths shall be applied to National Forest System lands in the General Management Area.
13. Proposed uses that would adversely affect water resources (wetlands, streams, ponds, lakes, and riparian areas) shall be prohibited. *(Added: U.S. Sec. Ag. concurrence 8/4/16)*

WILDLIFE AND PLANTS

SMA Goals: Wildlife and Plants

1. Protect (ensure that new uses do not adversely affect, including cumulative effects) and enhance the wildlife and plant diversity of the Gorge.
2. Encourage the protection of plant species that are classified as "List 3 (Review)" or "List 4 (Watch)" by the Oregon Biodiversity Information Center or "Monitor" by the Washington Natural Heritage Program.
3. Ensure that new uses do not adversely affect Natural Areas that are potentially eligible for the Oregon Register of Natural Heritage Resources or the Washington Register of Natural Areas Program.

SMA Policies: Wildlife and Plants

1. **Natural resources** existing on a site proposed for a new development or land use, and/or **natural resources** in danger of degradation or destruction from individual or cumulative off-site impacts, shall be protected from adverse effects.
2. Significant ecosystems such as Natural Areas, **wetlands**, ponds, lakes, **riparian areas**, **old growth** forests, islands, and areas of special importance such as botanical areas, sensitive wildlife sites, priority habitat, fishery habitats, or oak woodlands shall be protected from adverse effects.
3. Existing habitat quality, viable populations, and long-term productivity of **natural resources** and ecosystem diversity shall be maintained.
4. County, state, and federal regulations for air and water quality and for pesticide use shall be followed.
5. Newly discovered **rare wildlife** and **rare plant** species, areas and sites that are added to federal or state wildlife and plant lists shall be protected. Species that are deleted from federal or state wildlife and plant lists will not require further protection. Updated lists of **rare wildlife** and **rare plant** species can be found on websites for the Washington Department of Fish and Wildlife, the Wildlife Division of Oregon Department of Fish and Wildlife, the Oregon Biodiversity Information Center, or Washington Natural Heritage Program. A list also is maintained by the USDA Forest Service – National Scenic Area Office and available at the Gorge Commission office and on its website.
6. To help ensure that **rare wildlife** and **rare plant** species are not disturbed, the wildlife

and plant inventory shall be kept confidential.

7. Habitat areas of animal species that are classified as endangered or threatened by federal or state endangered species acts or the Washington Wildlife Commission may be designated Open Space; the guidelines in this chapter shall be used to protect other **rare wildlife** areas and sites.
8. Proposed uses that would adversely affect **rare wildlife** or **rare plant** areas or sites shall be prohibited. Uses adversely affect **rare wildlife** or **rare plant** sites and areas when they compromise the integrity of an area or site, or occur during a time of the year when affected wildlife or plant species are sensitive to disturbance.
9. Adequate buffer zones shall be maintained for **rare wildlife** and **rare plant** areas or sites from new uses. The width of wildlife buffer zones shall be determined on a case-by-case basis and shall reflect the biology of the affected species and the characteristics of the project site and the proposed use. The width of the **rare plant** buffer zone shall be 200 ft.
10. The size, scope, configuration, density, and timing of new uses within wildlife or plant buffer zones shall be regulated to protect **rare** species.
11. Site-specific plans shall be required before most new uses will be allowed within wildlife and plant buffer zones.
12. Rehabilitation and/or **enhancement** shall be required to offset unavoidable impacts to wildlife and plant habitats that result from new uses.
13. Natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources or the Washington Register of Natural Areas Program shall be designated as Open Space in the SMA.
14. Partnerships with public agencies, conservation groups, and individuals are encouraged to increase public awareness, understanding, and stewardship of **natural resources**.
15. Air quality shall be protected and enhanced, consistent with the purposes of the National Scenic Area Act. The States of Oregon and Washington and the U.S. Forest Service shall:
 - A. Continue to monitor air pollution and visibility levels in the Gorge;
 - B. Conduct an analysis of monitoring and emissions data to identify all sources, both inside and outside the National Scenic Area, that significantly contribute to air pollution. Based on this analysis, the States shall develop and implement a regional air quality strategy to carry out the purposes of the National Scenic Area Act, with the U.S. Forest Service, the Southwest Air Pollution Control Authority and in consultation with affected stakeholders.

The States and the Forest Service shall together provide annual reports to the Commission on progress made regarding implementation of this policy. The first report shall include a workplan and timeline for gathering/analyzing data and developing and implementing the strategy. The workplan and strategy shall be submitted to the Commission for approval.

SMA Guidelines: Water Resources / Wildlife and Plants

1. 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. Cumulative effects analysis is not required for expedited review uses or developments. Comments from state and federal agencies shall be carefully considered. (Site plans are described under “Review Uses” in Part II, Chapter 7: General Policies and Guidelines.) *(Revised U.S. Sec. Ag. Concurrence 8/4/16)*
2. Water Resources (**Wetlands, Streams, Ponds, Lakes, and Riparian Areas**)
 - A. All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in 2.A.(2)(a) and 2(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**.
 - (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: (1) the integrity and function of the buffer zone is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) 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 (1) identifies the precise location of the **rare wildlife/plant** or water resource, (2) describes the biology of the **rare wildlife/plant** or hydrologic condition of the water resource, and (3) 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 local government shall **submit** all requests to re-configure **rare 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 local government 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 local government 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 National Scenic Area is shown on the National Wetlands Inventory (U.S. Department of the Interior). 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 'Corps of Engineers Wetland Delineation Manual (on-line edition)' and applicable Regional Supplements.
 - (4) All **wetlands** delineations shall be conducted by a professional who has been trained to use the federal delineation procedures.
- 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 local government 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 local government shall obtain professional services, at the project applicant's expense, or the local government 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:
- H. The proposed use must have no **practicable** alternative as determined by the practicable alternative test.
- (1) 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**.
 - (3) 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 SMA mitigation plan.
- I. Proposed uses and development within wetlands, streams, ponds, lakes, riparian areas and their buffer zones shall be evaluated for cumulative effects to natural resources and cumulative effects that are adverse shall be prohibited.
(Added: U.S. Sec. Ag. concurrence 7/1/11; revised U.S. Sec. Ag. concurrence 8/4/16)

3. Wildlife and Plants

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

Rare wildlife areas are those areas depicted in the wildlife inventory, including all sensitive wildlife sites and Priority Habitats listed in this Chapter. The approximate locations of **rare wildlife** and/or **rare plant** areas and sites are shown in the wildlife and **rare plant** inventory.

- B. The local government shall **submit** site plans (of uses that are proposed within 1,000 feet of a **rare wildlife** and/or **rare plant** area or site) for review to the Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife or the Washington Department of Wildlife for wildlife issues and by the Oregon Biodiversity Information Center or Washington 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,
 - (3) 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 effects (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 and rearing seasons, or flowering season, and
 - (4) Delineate the undisturbed 200-ft buffer on the site plan for **rare plants** and/or the appropriate buffer for **rare 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: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) 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, (1) identifies the precise location of the **rare wildlife/plant** or water resource, describes the biology of the **rare wildlife/plant** or hydrologic condition of the water resource, and (3) 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 local government shall **submit** all requests to re-configure **rare 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 local government 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 local government shall justify how it reached an opposing conclusion.
- D. The local government, 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 effects 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.
 - (2) Physical characteristics of the subject **parcel** and vicinity, including topography and vegetation.
 - (3) Historic, current, and proposed uses in the vicinity of the **rare 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 published guidance documents such as "Oregon Guidelines for Timing of In- Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2008) and Washington's Aquatic Habitat Guidelines.
 - (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 as listed on the following Priority Habitats Table 1. 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.
- E. The wildlife/plant protection process may terminate if the local government, in consultation with the Forest Service and state wildlife agency or Heritage program, determines (1) the **rare wildlife** area or site is not active, or 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 effects, the proposed project shall be prohibited, unless the project applicant can meet the **Practicable Alternative Test** and prepare a **mitigation plan** to offset the adverse effects by deliberate **restoration and enhancement**.
- G. The local government shall **submit** a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The local government 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 local government 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 local government shall justify how it reached an opposing conclusion.
- H. The local government shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a **rare wildlife/plant** area or site.

4. Soil Productivity

- A. Soil productivity shall be protected using the following guidelines:
 - (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.

GMA/SMA: Practicable Alternative Test

1. 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:

- A. 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.
- B. 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.
- C. 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.

SMA Mitigation Plans

1. Mitigation Plans shall be prepared when:
 - A. The proposed development or use is within a buffer zone (**wetlands**, ponds, lakes, **riparian areas**, wildlife or plant areas and/or sites).
 - B. There is no **practicable** alternative (see the “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 the identified water resources and **rare wildlife/plant** areas and sites, that maximizes their development options, and that mitigates, through **restoration, enhancement, creation** 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 local government. The local

government 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 local government 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 protected resources (e.g. wildlife/plant species or **wetland**) that will be affected by a proposed use. An ecological assessment of the protected 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 protected 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 protected resources and their surrounding habitat that will not be altered or destroyed (for example, delineation of core habitat of the **rare 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 creation** measures will be applied to ensure that the proposed use results in minimum feasible impacts to protected resources, their buffer zones, and associated habitats.
 - E. Show how the proposed **restoration, enhancement, or creation** mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a protected resource, and only if this is not possible should **restoration, enhancement, or creation** be considered as mitigation. In reviewing mitigation plans, the local government, 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 local government 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 local government for review upon completion of the **restoration, enhancement, created** or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any **rare wildlife/plant** species and shall demonstrate the success of **restoration** and/or **enhancement** actions. The local government shall **submit** copies of the monitoring report to the Forest Service; who shall offer technical assistance to the local government 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 protected 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 shall survive. All plantings shall 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 protected resource of equal or greater benefit may be substituted, provided that no net loss of protected resource functions occurs and provided the local government, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.
- E. **Rare 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 'Practicable 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 vegetation.
- (9) The size of **restored**, **enhanced**, and **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 local government to ensure compliance. The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the local government 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 Guideline 9.F.(9). These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

Table 1 - Priority Habitat

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.
Winter range	Provides important wintering habitat for deer and elk.

Priority Habitats are defined by the Forest Service and state wildlife agencies through State Wildlife Action Plan efforts.

Table 2 - Columbia Gorge and Vicinity Endemic Plant Species

Common Name	Scientific Name
Howell's bentgrass	<i>Agrostis howellii</i>
Hood River milk-vetch	<i>Astragalus hoodianus</i>
Smooth-leaf douglasia	<i>Douglasia laevigata</i> var. <i>laevigata</i>
Howell's daisy	<i>Erigeron howellii</i>
Columbia Gorge daisy	<i>Erigeron oreganus</i>
Klickitat biscuitroot	<u><i>Lomatium klickitatense</i></u>
Long-beard hawkweed	<i>Hieracium longiberbe</i>
Smooth desert parsley	<i>Lomatium laevigatum</i>
Suksdorf's desert parsley	<i>Lomatium suksdorfii</i>
Barrett's penstemon	<i>Penstemon barrettiae</i>
Obscure buttercup	<i>Ranunculus reconditus</i>
Oregon sullivantia	<i>Sullivantia oregana</i>
Columbia kittentails	<i>Synthyris stellate</i>