

Plan Review

SMA Natural Resources

October 31, 2003

Introduction

The SMA Natural Resources analysis proposes language for the SMA wetland policy adopted July 22, 2003, which allows impacts to wetlands in cases of public safety and resource restoration and enhancement. In addition, the SMA Natural Resources section proposes procedural changes, clarifications and more detailed direction to implement SMA guidelines. The SMA Natural Resources section appears greatly changed from the current guidelines. However, our intent is to ensure there is no reduction from the current guidelines in the level of resource protection (with the exception of the revised wetland policy adopted in July 2003), while reorganizing the chapter, changing review processes and adding clarification.

The SMA Natural Resource Protection Guidelines were completely re-written to clarify ambiguities and to be more consistent with the GMA processes where this did not diminish the protection for the resources. Many of the SMA guidelines were unclear and were not sufficiently explained so as to make the intent clear. To correct this, many new guidelines were added predominantly taken from the GMA that were more clearly written. There were no new changes in SMA protection levels other than those presented through the Gorge Commission and the public process.

This document first presents the current Management Plan SMA Natural Resources guidelines with explanations as to how these were changed and where they have been moved. Only those guidelines that were changed will be addressed. This document then presents a second set of guidelines of the new proposed guidelines with explanations as to why they were changed or added.

Explanations are in Red, existing language is in black, and **proposed new language is in Green**. **Language in blue is incorporated from the GMA Natural Resources Chapter**.

The Forest Service is interested in your comments on these proposed revisions. We are taking comments until November 17, 2003. You may address comments to Dan Harkenrider at dharkenrider@fs.fed.us, or mail to 902 Wasco, Suite 200, Hood River, Oregon 97031. Decisions on these proposals are expected in late November.

You may contact Robin Dobson with questions or for further information. He may be reached at rdobson@fs.fed.us or (541) 308-1717.

SMA Guidelines (in the current Management Plan)

1. Proposed new developments and land uses, as described in a site plan prepared by the applicant, shall be evaluated to ensure that natural resources are protected from adverse effects. (Site plans are described under "Review Uses" in Part II, Chapter 7.)
2. Buffer zones shall be undisturbed unless it has been shown that no practicable alternatives exist, as evidenced by completion of a practicable alternative test. (See "Practicable Alternative Test" in the GMA Wetlands section.) New developments and uses may only be allowed in the buffer zone upon demonstration in the natural resources mitigation plan (see guideline 7) that no adverse effects would result.

This guideline was moved to the section on 'Buffer Zones'

3. The applicant's site plan shall include the following information in addition to that required in Part II, Chapter 7, to help evaluate compliance with minimum natural resource protection standards:
 - A. Location of the following sites and areas. The Forest Service will provide this information to the applicant.
 - 1) Sites of sensitive wildlife and sensitive plant species.
 - 2) Location of riparian and wetland areas.
 - B. A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.

This guideline was moved to Chapter 7 to be included on Site Plan details.

4. Site plans shall be submitted to the Forest Service, Oregon Department of Fish and Wildlife, or Washington Department of Wildlife. The site plan shall be reviewed by the Forest Service in consultation with the appropriate state or federal agency and reviewed and approved by the county if appropriate.
5. Review of the site plan shall consider the following:
 - A. Biology and habitat requirements of the flora or fauna of concern.

This was moved to the guidelines on 'Wildlife and Plants' and 'flora or fauna' was changed to 'Wildlife/plant'

- B. Historic, current, and proposed uses in the vicinity of sensitive species, including cumulative effects.

This was moved to 'wildlife and plants' and 'cumulative effects' was included in another guideline.

- C. Existing condition of the site and the surrounding habitat and the useful life of the site.
- D. Physical characteristics of the subject parcel and vicinity, including topography, vegetation, and soil and hydrological characteristics.

This guideline was moved to 'wildlife and Plants' and 'soil and hydrological characteristics' was deleted as it will be covered under 'Water Resources' guidelines.

- E. Minimum natural resource protection standards, including buffer zones.
- F. Closure of forest practice roads necessary to protect natural resources.

All guidelines relating to forest practices have been consolidated into the Forest LUD chapter. The above guideline was moved to the 'Forest Practices Guidelines'

- G. Comments from state and federal agencies.

6. Minimum natural resource protection standards include:

- A. Sites of sensitive wildlife and sensitive plant species.
 - 1) A buffer zone shall be created around sensitive wildlife and sensitive plant species.
 - a. A 200-foot buffer zone for sensitive plant species.
 - b. A buffer zone for sites of sensitive wildlife species, such as nesting, roosting and perching sites, as defined by species requirements and determined by a Forest Service biologist in consultation with other state or federal agency biologists.

- B. Riparian areas, wetlands, ponds, and lakes.
 - 1) Adding any fill or draining of wetlands is prohibited.

This guideline was deleted and replaced with a new guideline allowing for exceptions based on Public safety and restoration/enhancement. See Water Resources guidelines.

- 2) A minimum 200-foot buffer zone shall be created on the landward side of each wetland, pond or lake; or a wider variance from this requirement shall be determined during the site plan analysis of the wetland or riparian area and those species inhabiting the area, as determined by the Forest Service biologist in consultation with state and/or federal agencies.

The buffer zone widths for wetland, ponds, lakes, and riparian areas was not changed. However the process was changed to be

consistent with the GMA process. The Forest Service will no longer determine the buffer zones as this will be the responsibility of the proponent as indicated under the 'site plan' guidelines in Chapter 7.

- 3) A 200-foot buffer zone shall be created along each fish-bearing and perennial stream.
- 4) A 50-foot buffer zone shall be created along intermittent streams.
- 5) Revegetation shall use only species native to the Columbia River Gorge, and shall provide and maintain habitat diversity beneficial to the fish, wildlife, and native plants.

This guideline intent was retained but re-worded.

- 6) 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:
 - a. The wetland within the right-of-way is a drainage ditch not part of a larger wetland outside of the right-of-way.
 - b. The wetland is not critical habitat.
 - c. Proposed activities within the right-of-way would not adversely affect a wetland adjacent to the right-of-way.

This guideline does not relate to the Natural Resources, but to allowed uses. This guideline was moved to the appropriate Land Use Guidelines.

C. Fish and wildlife habitat.

- 1) Structures such as bridges, culverts, and utility corridors shall be designed so they do not impede the passage of fish and wildlife.
- 2) New developments and uses shall not interfere with fish passage.
- 3) Filling of shallow-water fishery habitat shall be allowed only after an analysis shows that no other practicable sites exist. Filling shall only be considered for water-dependent uses, and mitigation shall be required.

This guideline was deleted because it is included in the water resources guidelines already and is a repeat here.

- 4) New developments and uses shall occur during periods when fish and wildlife are least sensitive to activities. These would include,

among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified in "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 1986).

- 5) In areas of winter range, adequate thermal cover shall be maintained, as determined by the appropriate state wildlife agency.

The guideline's intent was to protect winter range from adverse effects and this requires protection of more than simply thermal cover. Consequently, this guideline was expanded to include other pertinent habitat measures, such as forage condition, as related to winter range. Because our understanding of winter range requirements change over time, the new guideline is written to allow the wildlife agency some flexibility in determining what factors are important.

- 6) Forest practices shall maintain the following:
 - a. Six live trees per acre, three of which shall be of the largest tree size available and three of which shall be of various sizes to provide replacements as snags and wildlife trees; and three dead trees per acre, of the largest tree size available; and three down trees per acre, of the largest tree size available. All trees shall be unburned.

In areas with mixed oak and conifer stands, at least one of the three dead trees per acre shall be an oak snag of the largest tree size, and one additional live conifer per acre of 16-inch dbh (diameter at breast height) or greater, preferably with limbs down to the ground, shall be maintained.

- b. Snags and wildlife trees shall be maintained either as clumps or evenly distributed over the forest practice area.
 - c. Down logs shall be relatively solid, and no area greater than 2 acres in size and capable of supporting forested conditions shall be without a minimum of two down logs.

The above guideline was moved to Forest Practices.

D. Biodiversity

- 1) New uses shall avoid disturbance to old growth forests.

This guideline is included under 'wildlife and plants' under the guideline requiring protection of 'priority habitats'. Priority

habitats includes old-growth forests, oak habitats, talus slopes, vernal ponds, among others (which will be defined in the glossary).

- 2) Forest practices shall maintain species composition at existing proportions in the activity area.

This guideline was moved to 'Forest Practices'

- 3) Forest practices in areas with existing oak species shall maintain a minimum of 25-square-foot basal area per acre of oak in areas with predominantly oak trees of 1-foot dbh or more, or maintain a minimum 40 percent oak canopy cover per 40 acres, in which 10 trees per acre must be of the largest tree size, in areas with predominantly oak trees less than 1 foot dbh. No area greater than 10 acres in size and supporting existing oak species shall be devoid of oak trees.

This guideline was moved to 'Forest Practices'

- 4) A mix in age and size of hardwoods shall be maintained to provide for vertical diversity and replacement.

This guideline was moved to 'Forest Practices'

- 5) For revegetation purposes, only plant species native to the Columbia River Gorge shall be encouraged.

E. Soil productivity

- 1) New developments and land uses shall control all soil movement within the area shown on the site plan.
- 2) The soil area disturbed by new development or land uses shall not exceed 15 percent of the project area.
- 3) 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.
- 4) Forest practices shall maintain the following:
 - a. Soil organic matter shall be provided at a minimum of 15 tons per acre and 25 tons per acre of dead and down woody material in the eastside and westside vegetation communities, respectively.
 - b. Potential ground disturbance activities shall be designed to minimize disturbance to the soil organic horizon.

This guideline was moved to 'Forest Practices'

- F. Air and water quality
 - 1) Streambank and shoreline stability shall be maintained or restored with natural revegetation.
 - 2) All new developments shall be carried out to comply with state water quality requirements.
- 7. The applicant shall develop a natural resource mitigation plan for all new developments or uses proposed within a buffer zone. The applicant's mitigation plan shall:
 - A. Include existing natural and cultural features.
 - B. Include proposed actions within and adjacent to the buffer zone.
 - C. Include mitigation measures as necessary to comply with the minimum natural resource protection standards and protect natural resources from adverse effects.
 - D. Be prepared by a natural resource specialist as defined.
 - E. Demonstrate mitigation measures that would offset the adverse effects of the proposed new use or development and that would ensure protection, long-term viability, and function of the resource being protected by the buffer zone.

These guidelines have not been deleted but expanded to give more clarity and definition as what is expected in the mitigation plan. This has, over the years, been very confusing to both the applicant and professionals alike. These guidelines were moved to the section under 'Mitigation Plan'

- 8. The natural resource mitigation plan shall be reviewed to ensure that the proposed mitigation is adequate and that it complies with minimum natural resource protection standards. The plan shall be reviewed by the Forest Service, in consultation with appropriate state or federal agencies, and reviewed and approved by the county, if appropriate. (see above)

The following are the new proposed Guidelines for the protection of the Natural Resources with explanations as to why the new guidelines were added. The overall organization was changed to separate out the water resources from the wildlife and plant guidelines as most counties have done. There is also a separate section on 'Practical Alternatives' and 'Mitigation Plan'.

Proposed language for SMA Natural Guidelines

The proposed language for the Natural Resource Guidelines is shown below. New guidelines and new wording is in green, all inclusion of existing GMA guidelines are in blue. The following includes changes to wetland guidelines as well as general clean-up and re-organization of natural resource guidelines.

SMA Guidelines:

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. Comments from state and federal agencies shall be carefully considered. (Site plans are described under "Review Uses" in Part II, Chapter 7.)
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 Section on page XX of this Chapter. 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 perennial or fish bearing stream, some of which can be intermittent.

- b. A 50-foot buffer zone along each bank of intermittent, non-fish bearing streams.
- 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 it is determined that the recommended width is insufficient to prevent habitat degradation and insufficient to protect the structure and functions of the habitat area.
 - d. 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 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.
- 5) 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 sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive 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 permitting body shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. The state and federal agencies will have 30 days to submit written comments. All written comments shall be recorded and based on the comments from the state and federal agencies, the permitting body will make a final decision on whether the reduced buffer zones is justified. If the final decision contradicts the comments submitted by the federal and state agencies,

the permitting body shall justify how it reached an opposing conclusion.

These new guidelines were added to give more flexibility to the buffer zones and their application to appropriate on-the-ground placement. This flexibility gives more credibility to buffers as implementation tools for protection of sensitive resources. The protection values are not degraded under these circumstances.

The above new guidelines were also added to clarify ‘.or a wider variance from..’ in the original SMA guidelines. This clarification explains the need for increased protection of the buffer zones on water resources where it was important for proper function.

- B. When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.
- C. The applicant shall be responsible for identifying all water resources and their appropriate buffers. (see above)
- D. Wetlands Boundaries shall be delineated using the following:
 - 1) The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U. S. Department of the Interior 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.

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 determining the exact location of a wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the ‘1987 Corps of Engineers Wetland Delineation Manual (on-line Edition)’.

All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.

The above guidelines were added from GMA to clarify the nature of the wetland inventories and to clarify the process and responsibilities by which these buffers are delineated. The reference to the Federal Manual was never expressed in a guideline – only as a policy.

- 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.

This guideline was added to again clarify the responsibility of the proponent and to clarify the boundary parameters. The use of 'bank full flow' is the current preferred measure of a stream's boundary by agency and professional experts.

- F. The permitting body 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 permitting body shall obtain professional services, at the project applicant's expense, or the county will ask for technical assistance from the Forest Service to render a final delineation.

This guideline was added to clarify the role and responsibilities of the reviewing body and the role of the Forest Service. This process was not formally in the SMA guidelines but the counties were implementing this from the GMA. By adding this guideline the GMA/SMA processes become one and the same.

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

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

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.

This was added to clarify the implications when some aspects of the proposed use do not meet the test.

- 2) Filling and draining of wetlands shall be prohibited with exceptions related to public safety and 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.

This is a new guideline to implement the wetland policy change for the SMA. The policy change allows for filling and draining of wetlands only as related to public safety and restoration/enhancement activities.

- 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 mitigation plan (see pp.). (these words were added for clarification)

3. WILDLIFE AND PLANTS

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

The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.

- B. The permitting body shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife or the Washington Department of Wildlife for wildlife issues and by the Oregon or Washington Natural Heritage Program for plant issues).

The above guideline was added from GMA to create one process for both GMA and SMA (which would not diminish any protection in the SMA) and which would clarify the roles and responsibilities of the proponent, counties, and Forest Service. The 1000 ft trigger is the same as in GMA and is what the counties normally use. The 1000 ft distance was taken because it represents the largest buffer zone that would be applied to wildlife/plant sites.

- 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 adversely affects (including cumulative effects) to the wildlife or plant area or site. This would include considering the time of year when wildlife or plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season, and

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

This guideline was taken from the GMA to clarify the responsibilities of the State and Federal biologists. The original SMA guideline did not clearly define the responsibilities of the biologists and approving body. The intent of the SMA guideline has not been changed but clarified.

- 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 sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive 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 permitting body shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. The state and federal agencies will have 30 days to submit written comments. All written comments shall be recorded and based on the comments from the state and federal agencies, the permitting body will make a final decision on whether the reduced buffer zones is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the permitting body shall justify how it reached an opposing conclusion.

These new guidelines were added to give more flexibility to the buffer zones and their application to appropriate on-the-ground placement. This flexibility gives more credibility to buffers as implementation tools for protection of sensitive resources. The protection values are not degraded under these circumstances.

- D. The permitting body, in consultation with the State and federal wildlife biologists and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse affects to the wildlife or plant area or site:

- 1) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington Department of Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander (Rodrick and Milner 1991). (This guideline was added from GMA to ensure that appropriate documents were considered).
- 2) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.
- 3) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.
- 4) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.
- 5) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.

This new guideline was added to clarify what the original SMA guideline was attempting to achieve. Winter range protection is more than simple thermal cover. This also allows for impacts with appropriate mitigation measures.

- 6) The site plan is consistent with the "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000) and the Washington guidelines when they become finalized.
- 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, or enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands). 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.

This new guideline was added to clarify what was meant by bio-diversity and to align bio-diversity to priority habitats as defined and mapped by Washington State Dept. of Wildlife. Mapping efforts are currently being completed for the Oregon side as well. This guideline will give the counties and biologists a more defined interpretation for bio-diversity with appropriate inventory maps.

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

- E. The wildlife/plant protection process may terminate if the permitting body, in consultation with the Forest Service and state wildlife agency or Heritage program, determines (1) the sensitive wildlife area or site is not active, or (2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the permitting body shall incorporate them into its development review order and the wildlife/plant protection process may conclude.

This GMA guideline is added here to clarify the process of approval and to help create one process for both GMA and SMA. However, some modification to the GMA guideline was necessary to retain the integrity of the buffer zone and to consistently require the set process (practicable alternatives test and mitigation plan) for any activities within a buffer zone.

- F. If the above measures fail to eliminate the adverse affects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test (see pp.) and prepare a mitigation plan (see pp.) to offset the adverse effects by deliberate restoration and enhancement.

This guideline is simply for clarification as to what the next step is in the process. It is simply a rewording of the original SMA process.

- G. The permitting body shall submit a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The state and federal wildlife agency/Heritage program will have 20 days from the date that a field survey or mitigation plan is mailed to submit written comments to the reviewing body.

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

The above guidelines are adapted from GMA to clarify the process and to help create one process for both GMA and SMA. This also clarifies the role and responsibilities of the deciding body and the other state and federal entities..

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 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.

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.
- 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.
- 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.

MITIGATION PLAN

1. Mitigation Plan shall be prepared when:
 - A. The proposed development or use is within a buffer zone (wetland, pond, lakes, riparian areas, wildlife or plant areas and/or sites)
 - B. There is no practicable alternative (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).

The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources, and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.

3. The applicant shall submit the mitigation plan to the permitting body or reviewing agency. The permitting body or reviewing agency shall submit a copy of the mitigation plan to the Forest Service, and appropriate state agencies who will have 30 days to submit comments to the reviewing agency. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the permitting body shall justify how it reached an opposing conclusion.

This guideline was amended to clarify a set time for response to the local government. A section was taken from the GMA to clarify the process should the local government not follow recommendations from the state and federal agency biologists. This helps to consolidate the processes in GMA and SMA.

4. A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation.
5. Mitigation plan shall include maps, photographs, and text. The text shall:
 - A. Describe the biology and/or function of the sensitive resources (eg. Wildlife/plant species, or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required. Reference published protection and management guidelines.
 - B. Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the

sensitive resources. Include the size, scope, configuration, or density of new uses being proposed within the buffer zone.

- C. Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for examples, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).
- D. Show how restoration, enhancement, and replacement (creation) measures will be applied to ensure that the proposed use results in minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats.

All of the above guidelines from the GMA are clarification of the requirements for the mitigation plan. These requirements were poorly defined in the SMA guidelines.

- E. Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are **NOT** alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the permitting body, appropriate state agencies, and Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.

This guideline was added to clarify that avoidance must be considered prior to any exploration of impacts to sensitive resources.

- 6. At a minimum, a project applicant shall provide to the permitting body 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.
- 7. A final monitoring report shall be submitted to the permitting body for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The permitting body shall submit copies of the monitoring report to the Forest Service; who shall offer technical assistance to the permitting body 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.

This guideline clarifies the content of a monitoring plan and clarifies the process for approval.

8. Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:

A. Restoration and enhancement efforts shall be completed no later than **one year** after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.

Completion of this work in 90 days was found to be impracticable and not in the interest of the resources. The time period needed to be extended to 1 year to allow for proper planting dates to coincide with favorable climatic conditions.

B. All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.

C. Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.

If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the County, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.

D. Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods.

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

E. Nonstructural controls and natural processes shall be used to the greatest extent practicable.

- 1) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.
- 2) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as demonstrated by the 'Practical Alternative Test'.
- 3) Fish passage shall be protected from obstruction. Restoration of fish passage should occur wherever possible.
- 4) 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.
- 5) 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.
- 6) 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..
- 7) Streambank and shoreline stability shall be maintained or restored with natural revegetation

F. The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

Restoration: 2: 1

Creation: 3: 1

Enhancement: 4: 1

G. Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the permitting body to ensure compliance. The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the permitting body to help

evaluate such reports and any subsequent activities associated with compliance.

All of the above guidelines were taken from the GMA guidelines and were added to clarify the factors required to write a mitigation plan. The SMA guidelines did not expand on the required contents on a mitigation plan and this has continued to cause problems for the applicants as well as their hired professionals.

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 meeting the ratios given above in guideline. These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

This guideline was added to clarify the role of alternatives to wetland restoration and enhancement. This method of wetland enhancement/restoration has proven to be very valuable in many circumstances and is being used with increasing frequency.