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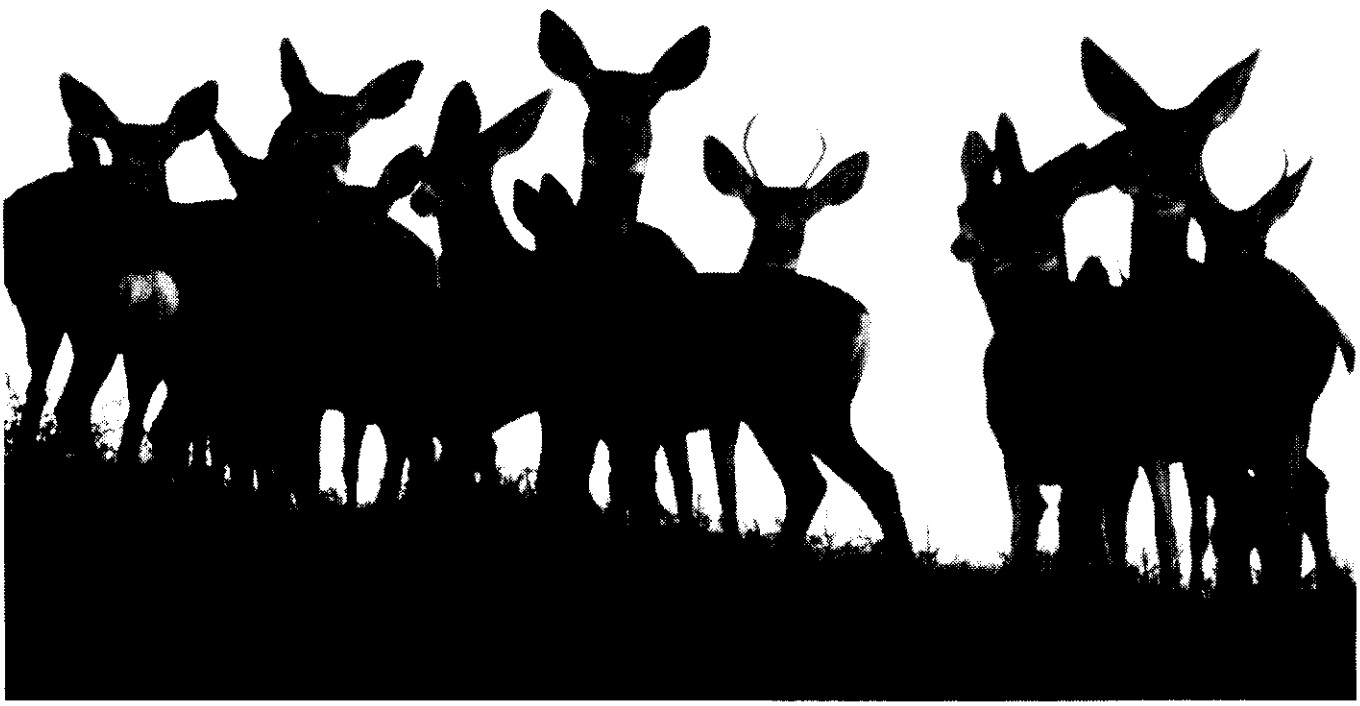
WILDLIFE MITIGATION PROGRAM

Record of Decision
DOE/EIS – 0246



BONNEVILLE POWER ADMINISTRATION

Wildlife Mitigation Program Record of Decision

SUMMARY

Bonneville Power Administration (BPA) has decided to adopt a set of prescriptions (goals, strategies, and procedural requirements) that apply to future BPA-funded wildlife mitigation projects. Various sources—including Indian tribes, state agencies, property owners, private conservation groups, or other Federal agencies—propose wildlife mitigation projects to the Northwest Power Planning Council (Council) for BPA funding. Following independent scientific and public reviews, Council then selects projects to recommend for BPA funding.

BPA adopts this set of prescriptions to standardize the planning and implementation of individual wildlife mitigation projects. This decision is based on consideration of potential environmental impacts evaluated in BPA's Wildlife Mitigation Program Final Environmental Impact Statement (DOE/EIS-0246) published March 20, 1997, and filed with the Environmental Protection Agency (EPA) the week of March 24, 1997 (EPA Notice of Availability published April 4, 1997, 62 FR 65, 16154). BPA will distribute this Record of Decision to all known interested and affected persons, groups, tribes, and agencies.

For Further Information:

Contact Thomas C. McKinney (EC-4), Bonneville Power Administration, P.O. Box 3621, Portland, Oregon, 97208-3621; phone number (503) 230-4749; fax number (503) 230-5699. For copies of the Wildlife Mitigation Program Final EIS, please call BPA's toll-free document request line at (800) 622-4520 and ask for the EIS by title.

DECISION

Background:

BPA's responsibilities include mitigation for wildlife habitat losses caused by development of the Federal Columbia River Power System. BPA generally meets this responsibility by funding projects submitted to and recommended by the Council. Project submissions come from Indian tribes, state agencies, property owners, private conservation groups, and other Federal agencies. Based on past experience, BPA expects that future wildlife mitigation actions with potential environmental impacts would include land acquisition and management, water rights acquisition and management, habitat restoration and improvement, installation of watering devices, riparian fencing, and similar wildlife conservation actions. In the past, BPA has addressed all wildlife mitigation project issues and impacts under a case-by-case approach. The approach required that many common issues be readdressed as they arise with each successive project. BPA will apply the adopted prescriptions to ensure that individual BPA-funded projects are planned and managed with appropriate consistency across projects, jurisdictions, and ecosystems, as well as across time.

BPA bases its choices among the range of alternatives considered on the following factors:

- Achievement of the biological objectives of wildlife mitigation projects to be implemented by BPA;

- Achievement of cost and administrative efficiency;
- Compliance with all applicable laws and regulations; and
- Environmental protection.

The Action Selected:

BPA has decided to adopt the set of prescriptions (goals, strategies, and procedural requirements) identified in the final EIS as "Alternative 6, Balanced Action (BPA's Preferred Alternative)." This decision will standardize the planning and implementation process, while achieving balance among all decision factors: (1) meeting the biological objectives of wildlife mitigation projects, (2) achievement of cost and administrative efficiency, (3) compliance with all applicable laws and regulations, and (4) protection and improvement of other environmental resources when such actions would support wildlife mitigation.

Under this action, BPA will support a wide range of actions to achieve wildlife mitigation consistent with Council's goals and priorities. BPA will strongly emphasize the achievement of biological objectives in the least costly manner. Project managers will follow a standard, yet flexible project planning process. They will also apply program-wide measures, as appropriate, to protect the environment, including soils, fish and water resources, vegetation, non-target wildlife, land use, local economies related to the environment, recreation, and air quality.

The primary differences between this action and the past approach (No Action) will be (1) application of a standard planning process, and (2) application of program-wide mitigation measures, as appropriate, to protect the environment (as listed below, following the planning process description and associated prescriptions). These two differences will allow BPA to implement wildlife mitigation programs more efficiently and with greater consistency than under the past case-by-case approach.

BPA will require that BPA-funded projects follow the eight basic steps of the standard planning process. For each project, managers will develop a Project Management Plan that addresses each step, commensurate with project scale and complexity. This process is interactive and flexible. Steps may occur "out of sequence" or simultaneously, and there may be many feedback loops between steps. For example, the results of one step may require that managers re-evaluate earlier steps. Project Management Plans may also become more detailed over time, as projects become better defined and as more is known about project boundaries, stakehholder interests, biological resources, and other project-specific issues.

Standard Planning Process and Prescriptions. The standard planning process steps are described below, along with required prescriptions appropriate under each step.

1. **Define the Area of Concern/Interest.** In the first step, project managers delineate the project boundaries and project issues, focusing primarily on the Council's priority habitat types and species. Public lands will be favored as mitigation sites so as to minimize potential economic effects. Project managers will also seek to establish projects that could take advantage of existing land management systems or that could eliminate existing management inefficiencies. Specifically, project managers will carry out the following:

a. Coordinate with water resource agencies to verify viability of new water sources and uses and to design and implement features necessary to protect aquatic systems and other water users.

b. Make preliminary identification of the presence or absence of threatened or endangered species, as listed or proposed for listing under the Endangered Species Act (ESA), and their habitat within the area that may be affected by the project.

c. Identify any minority and/or low-income populations that may be adversely affected by the mitigation project being considered.

d. *For project involving property acquisition,* make preliminary identification of the presence of historic and archeological resources.

e. *For project involving property acquisition,* make preliminary identification of the presence of hazardous and toxic wastes, using the American Society for Testing and Materials (ASTM) Standards on Environmental Site Assessments for Commercial Real Estate (E 1527-94 and E 1528-93).

f. Select boundaries, focusing on habitat type and species priorities and accompanying elements that the Council has identified in its Fish and Wildlife Program.

g. When identifying potential mitigation sites, examine public lands first to determine opportunities for adjustments, land exchanges, and reciprocal management agreements that eliminate management inefficiencies and inconsistencies.

h. Consider long-term lease or easement acquisition where public lands are not available.

i. If possible, establish partnerships for achieving project objectives, including agreements with non-electric power development mitigation programs, to ensure coordinated and expeditious program implementation.

j. Address concerns over additions to public land ownership and impacts on local communities, such as reduction or loss of local government tax or economic base, or consistency with local governments' comprehensive plans.

2. **Involve Stakeholders.** In the second step, managers gather input from affected groups and persons. This step is similar to the project scoping and public involvement that occurs in a National Environmental Policy Act (NEPA) analysis, and may be part of a NEPA process tiered to the Wildlife Mitigation Program EIS. Interested parties may include landowners or other individuals; interest groups; tribes; and city, county, state, regional, or Federal agencies. Project managers will actively seek public input and will plan cooperatively with government agencies or other entities to maximize planning and management efficiencies. Specifically, project managers will carry out the following:

a. Consult with affected tribes, state fish and wildlife agencies, cities, local governments, and adjacent landowners.

b. Develop an effective public involvement program that includes a variety of ways to solicit public input, including mailings, public notices and public meetings and workshops both early in and throughout the planning process, and by notification in the local paper of record and in BPA's monthly newsletter; consider alternative means of eliciting public input, such as postings on the Internet and radio advertisements.

c. Wherever possible, form partnerships with government agencies or other entities so as to reduce costs, increase benefits, and/or eliminate duplicate activities.

3. **Develop a Statement of the Desired Future Condition.** Under the standard planning process, project managers develop a statement that expresses a clear conceptual picture of the ideal long-term state towards which efforts are directed. BPA will support concepts that keep long-term management costs low, while ensuring coordination with watershed-level planning efforts. Specifically, project managers will carry out the following:

   a. Identify a desired future condition for wildlife habitat that responds specifically to achievement of biological objectives.

   b. Facilitate the development of a statement of desired future condition, in cooperation with watershed activities.

   c. Identify a desired future condition that is self-sustaining (low-maintenance).

4. **Characterize the Historical and Present Site Conditions and Trends.** Project managers identify current and past conditions of the project area in terms of composition, structure, function, stresses, and other variables. BPA supports the collection of the information necessary to achieve wildlife mitigation and to monitor results. Specifically, project managers will carry out the following:

   a. Contact the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to determine whether threatened or endangered species are known to occur or potentially occur in the vicinity of the project area.

   b. Consult with the State Historic Preservation Office (SHPO) and affected tribes to identify potential occurrences of cultural resources.

   c. Survey for threatened or endangered plant or animal species before disturbing land or conducting other activities that may affect such species if the USFWS and/or NMFS identify these species as potentially occurring in the vicinity of the project area.

   d. Establish baseline information for habitat and species against which change can be measured (related to the "measurable biological objective" standard included in step 5).

5. **Establish Project Goals**. In step 5, project managers establish mitigation goals for each project, including those goals established by the Council. Project managers identify the specific targets (in terms of conditions, outputs, features, or functions) against which progress and success will be measured. Specifically, project managers will carry out the following:

a. Establish measurable biological objectives (e.g., number of habitat units, acres and/or habitat types, list of indicator species).

b. Include, as a project goal:

- protection of high-quality native or other habitat or species of special concern (whether at or adjacent to the project site), including endangered, threatened, or sensitive species;
- development of riparian or other habitat that can benefit both fish and wildlife;
- mitigation of habitat losses in-place, in kind, wherever possible;
- protection or improvement of natural ecosystems and species diversity over the long term;
- development of habitat that complements the activities of the region's tribes, state and Federal wildlife agencies, and private landowners; and
- achievement of a future condition that is self-sustaining after initial improvements have been completed.

c. For forest lands, consider the recommended goals outlined in the 1995 Federal Wildland Fire Management Policy and Program Review. (The report recommends that agencies develop a plan-by-plan strategy to introduce landscape-scale prescribed burns across agency boundaries. The report also directs agencies to seek opportunities to enter into partnerships with Tribal, state, and private land managers to achieve this objective.)

d. Allow, as a project goal, sustainable revenue generation (e.g., user fees, crop production, timber harvest) to reduce initial or long-term Federal costs *only* if consistent with biological objectives.

6. **Develop and Implement an Action Plan for Achieving the Goals.** Project managers create a Project Management Plan that details the actions to be taken to achieve project goals, including the specific techniques, standards, and guidelines to be implemented and protocols for coordination with others. BPA will consider support of a wide range of management techniques and other actions to achieve wildlife mitigation. Specifically, project managers will carry out the following:

a. Take no action inconsistent with Tribal legal rights, or with other legally mandated protections such as those under the ESA.

b. Address any disproportionately high and adverse human health or environmental effects on minority or low-income populations, in accordance with Executive Order 12898 (Environmental Justice).

c. Follow State and Federal regulations for all activities in or near wetlands, whether for maintenance or improvement, including (1) the Clean Water Act, Section 404;

(2) Protection of Wetlands, Executive Order 11990; and (3) Floodplain Management, Executive Order 11988.

d. Construct wildlife developments in consultation with water resource management agencies and state and Tribal fish and wildlife agencies. Obtain required permits.

e. Avoid activities that might adversely affect threatened and endangered species or their habitat. Document compliance with Section 7 of the ESA

f. Use only EPA-approved pesticides, and use only in the manner specified by EPA.

g. *For projects involving use of herbicides,* prevent use of herbicides in or near surface water, unless the herbicide has been EPA-approved for such use.

h. Screen structures from sensitive viewing locations or develop designs that blend into the landscape in areas managed as National Scenic Areas.

i. *For projects involving prescribed burns,* obtain required permits and use state-defined smoke management direction to determine allowable smoke quantities.

j. If consultation with the SHPO and tribes indicates a potential for cultural resources, conduct cultural resource surveys to document any resources that are present.

k. *For projects involving property acquisition (including leases) and ground-disturbing activity, and where properties on or potentially eligible for the National Register of Historic Places (National Register) are known to exist on the property,* incorporate a cultural resource management plan or other SHPO-approved actions.

l. Ensure that barriers are not created that unduly restrict access for physically disabled persons where public access is allowed.

m. Specify that any new public-use facilities are free of barriers to persons with physical disabilities.

n. Consider the full range of management techniques available, and use the method that best achieves the biological objective in a cost-effective manner, as determined on a case-by-case basis.

o. Apply the potential program-wide mitigation measures listed on pages 8 through 17 of this Record of Decision, as appropriate to protect the environment.

p. Favor natural regeneration over active restoration where the same biological objectives can be achieved in a reasonable amount of time.

q. Consider passive or active recreation, providing it does not interfere with achieving wildlife mitigation.

r. For forest lands, enter a collective management agreement with Federal and state landowners to implement actions outlined in the 1995 Federal Wildland Fire Management Policy and Program Review.

s. Dedicate to the project any site-specific user fees or revenue gained from commerce that results from the exclusive use of the property. (Revenues generated from hunting licenses or other wildlife recreation-related fees that cannot be directly linked to wildlife mitigation activities or that are identified in site-specific management plans will be excluded.)

t. Favor wildlife management activities that have side benefits for fish, e.g., riparian habitat restoration.

u. Encourage the use of available local supplies and labor to accomplish project goals and objectives.

v. Identify opportunities for work skill training in conjunction with wildlife mitigation activities. For example, encourage construction contractors to use the local employment security office to hire staff for positions that involve on-the-job training.

w. *For projects involving vegetation control,* develop specific protocols for use of herbicides, mechanical, and biological methods, in cooperation with local weed control boards. Protocols could be adapted from the U.S. Forest Service (USFS) 1988 Final EIS for Managing Competing and Unwanted Vegetation.

x. *For projects involving vegetation control,* conduct weed control programs using joint multi-agency planning.

y. Control nuisance animals or unwanted or competing plant species where they are hindering establishment of vegetation.

z. Use predator control only when needed to increase rare species or to establish new populations of species susceptible to predators.

aa. Consider recreational opportunities suitable for physically disabled persons where existing access allows.

7. **Monitor Conditions and Evaluate Results**. Once a Project Management Plan is being implemented, project managers start a program to (1) monitor implementation of relevant standards and guidelines; (2) verify achievement of desired results; and (3) determine soundness of underlying assumptions. BPA will encourage and support decision-oriented monitoring that can be used to evaluate the success of mitigation efforts and to make necessary adjustments to better achieve objectives. Specifically, project managers will carry out the following:

a. Monitor specific performance standards for status and trend of progress toward biological objectives (established under Steps 4 and 5).

8. **Adapt Management According to New Information.** In this step, project managers respond to new information and technology by adjusting management actions, directions, and goals: management planning, action, monitoring, and feedback are established as a continuous cycle. BPA will encourage and support adaptive management actions that respond to problems or opportunities identified through monitoring. Project managers will also be encouraged to apply new knowledge, insights or technologies that may contribute to meeting biological objectives. Specifically, project managers will carry out the following:

   a. Use monitoring information to guide annual management priorities and activity planning.

Potential Program-Wide Mitigation Measures. Project managers will consider incorporating the following resource-specific mitigation measures as appropriate to protect the environment:

1. **Soils.** Project managers will seek to establish a desired future condition without incurring the following impacts: disturbing soils on unstable slopes; disturbing the upper soil horizons or accelerating erosion well beyond that occurring under natural processes; compacting soil such that plant growth is prevented or severely restricted; or allowing sufficient deposition of salts or other materials into soils that vegetation growth is inhibited. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

   a. Monitor newly disturbed soils for evidence of erosion; implement active controls, such as plowing and seeding of new gullies (or temporary stabilization for later seeding during dry season).

   b. Where soil-disturbing activities are being considered, survey soil conditions to find and map potentially fragile soil types (such as shallow "scablands") and allow only those activities that would not disturb soils in these areas.

   c. *For projects involving land acquisition,* develop and implement a sediment and erosion control plan where soils might be disturbed.

   d. Develop and implement an erosion control plan according to applicable Best Management Practices (e.g., USFS's or BLM's) for each activity that involves disturbing soils (e.g., preparation of seedbeds or creation of wetlands).

   e. Use conservation tillage practices for planting and maintaining vegetation (e.g., no-till methods). These methods (including reduced-tillage or no-tillage methods) are less harmful to soils.

   f. *For projects involving water development,* establish guzzlers, springs, ponds, and other wildlife water developments in areas where soils can tolerate increased wildlife trampling.

   g. *For projects involving installation of guzzlers,* design guzzlers in accordance with National Resource Conservation Service specifications.

   h. *For projects involving installation of culverts*, avoid elevated outfalls. Where such outfalls are unavoidable, install energy diverters to absorb and deflect flow.

i. Plant vegetation, or place riprap or similar material along created ditches and channels to minimize bank erosion.

j. *For projects involving prescribed burns*, implement the recommended goals and actions outlined in the 1995 Federal Wildland Fire Management Policy and Program Review.

k. *For projects involving prescribed burns*, conduct a pre-burn inventory to identify areas to avoid, including areas that may be vulnerable to increased erosion. Develop an approach to avoid these areas.

l. *For projects involving prescribed burns*, check burned areas at regular intervals (e.g., once every 3 months during the first 2 years) to identify potential problem areas requiring additional treatments, such as transplanting, seeding, soil stabilization, or fertilization.

m. *For projects involving introduction, reintroduction, or augmentation of wildlife populations*, develop a specific population control strategy for introduction programs involving large mammals.

n. *For projects involving introduction, reintroduction, or augmentation of wildlife populations*, introduce large mammals only where feasibility studies indicate that soils and vegetation can tolerate increased foraging or physical damage.

o. *For projects involving introduction, reintroduction, or augmentation of wildlife populations*, introduce only those species that have been historically present, and ensure that factors resulting in previous extirpation are no longer present.

p. Control nuisance animals where they are hindering establishment of vegetation.

q. Use conservation tillage practices for crop production on mitigation lands.

r. *For projects involving property acquisition*, inventory and map sensitive soil areas, and restrict human access to these areas.

s. Manage livestock levels and timing to minimize damage to soils.

t. Allow livestock grazing only as a vegetation management tool.

u. *Where off-road vehicle travel is planned*, develop a trail network to contain travel routes.

v. *For projects involving road construction*, build roads with water bars, culverts, and other erosion control features, such as placement of gravel or pavement where soil, slope, and other site conditions may encourage erosion.

w. Allow road construction only where necessary for maintenance and operation of mitigation lands. Decommission unnecessary roads.

x. *On large tracts of wildlife mitigation land*, provide good, general vehicle access with relatively few roads by maintaining one or more through roads.

y. *For projects involving road construction*, build roads at least 15 meters (m) (50 feet (ft.)) from perennial streams; construct within 46 m (150 ft.) only when necessary.

z. Allow timber harvest only as a vegetation management tool.

aa. *For projects involving commercial timber harvest*, use practices that avoid disturbing the soils, such as buffer strips along streams, use of designated skid trails, specific criteria for stream crossings, directional falling of trees, and full-suspension yarding on areas susceptible to soil erosion, such as steep slopes.

2. **Water and Fish Resources.** Project managers will seek to establish a desired future condition without incurring the following water resources impacts: violating water quality standards; placing dredge or fill materials into wetlands under the jurisdiction of the Corps and not covered under a nationwide permit, as defined under Section 404 of the Clear Water Act; reducing in-stream flows to the extent that riparian vegetation is likely to be permanently reduced or eliminated; or infringing upon existing, priority water rights. They will further seek to establish that condition without the following impacts on fish: adversely affecting a fish species listed or proposed for ESA listing; adversely modifying designated critical habitat for listed fish species; adversely affecting fish species listed by state fish and wildlife or Tribal agencies as species of special concern (such as endangered, threatened, sensitive, etc.); removing habitat that has been identified by state or Tribal agencies as unique, rare, or important to fish distribution; directly killing fish or fish eggs; permanently removing or degrading spawning habitat; temporarily reducing habitat that in turn may result in increased fish mortality or lowered reproductive success; or avoidance by fish of biologically important habitat for substantial periods (e.g., blockages of upstream passage), possibly resulting in increased mortality or lower reproductive success. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

a. Select, implement, and enforce applicable Best Management Practices (e.g., USFS's or BLM's) based on site-specific conditions, technical and economic feasibility, and the water quality standards for those waters potentially affected.

b. Monitor water quality downstream from activities with potentially significant adverse affects on water quality, such as those land-disturbing activities occurring within 15 m (50 ft.) of the wetted perimeter of a stream or wetland. Implement corrective actions for conditions found to be approaching maximum allowable degradation under state regulation.

c. *For projects involving creation of water conveyance features*, plant vegetation or place riprap or similar material along created ditches and channels to minimize bank erosion.

d. *For projects involving the installation of culverts*, place structures at elevated outfalls to absorb and deflect flow.

e. *For projects involving placements of culverts*, use culverts designed to allow fish passage (e.g., box culverts) in streams containing native fish or non-native food or game fish; position culverts even with the natural downstream flow.

f. Minimize use of fertilizer and require monitoring of downstream wetlands and streams to identify possible adverse affects.

g. Stop application of fertilizer if signs of eutrophication are detected.

h. Use fertilizers with the lowest environmental cost that can still achieve acceptable results.

i. Before establishing an irrigation system, sample soils and groundwater on previous cropland for possible accumulation of chemicals.

j. Apply fertilizer away from streams. Do not apply fertilizer using aircraft in areas containing streams.

k. Minimize irrigation runoff and monitor runoff for the presence of contaminants on newly irrigated lands.

l. *For projects involving wetland and/or island creation*, construct wetlands and islands during the dry season.

m. *For projects involving wetland creation*, ensure adequate strategy to control nutrients excreted by large concentrations of waterfowl.

n. Monitor dissolved oxygen levels in water released from deep impoundments and take actions to eliminate low-oxygen discharges if found.

o. *For lands involving property acquisition*, withdraw surface waters or groundwater only where such withdrawal is necessary for the use and management of the property and when such withdrawal is demonstrated not to cause significant adverse effects on aquatic life, riparian communities, or adjacent land use.

p. Coordinate with state water resource and/or rights agencies and with tribes with parallel authorities to verify viability of new water sources and to design and implement features necessary to protect aquatic systems and other water users.

q. Develop water impoundments or diversions in consultation with state water agencies and state and Tribal fish and wildlife agencies. Obtain Corps permits, where needed.

r. *For each controlled burn operation*, develop a specific plan that outlines objectives as well as measures to minimize risk of escape and impacts on soils, air quality, and other resources.

s. *For projects involving prescribed burns*, conduct a pre-burn inventory to identify areas to avoid, including areas that may be vulnerable to increased erosion. Develop an approach to avoid these areas.

t. *For projects involving prescribed burns*, monitor burned areas at 1-day, 1-month, 6-month, and 1-year intervals to identify potential problem areas requiring additional treatments, such as transplanting, seeding, soil stabilization, or fertilization.

u. *For projects involving prescribed burns*, maintain standard protection buffers near riparian areas; take protective measures, such as fire lines, to ensure that riparian vegetation is maintained.

v. Coordinate with adjacent landowners and management agencies to discuss and resolve potential problems.

w. *For projects involving use of herbicides*, prevent use of herbicides within 15 m (50 ft.) of water bodies, unless the herbicide has been approved by the EPA for use in or near water.

x. *For projects involving introduction, reintroduction, or augmentation of wildlife populations*, develop a specific population control strategy for introduction programs involving large mammals (see related discussion above, under **Soils**).

y. Prevent direct pollution by livestock under commercial grazing permits by eliminating streamside or lakeside corrals and pastures and associated watering sites on natural waters.

z. *Where grazing will continue on mitigation lands*, fence riparian areas particularly susceptible to damage or areas that have already been damaged and are being restored.

aa. Develop roads only where necessary for efficient operation and maintenance. For recreational use, utilize existing roads.

bb. Prevent livestock from having direct access to streams, lakes, or other natural surface waters.

cc. Allow timber harvest only as a vegetation management tool to improve habitat for targeted wildlife species.

dd. *For projects involving forest management*, use practices that avod disturbing soils or steams, such as buffer strips along streams, use of designated skid trails, specific criteria for stream crossings, directional falling of trees, and full-suspension yarding on areas susceptible to soil erosion, such as steep slopes.

3. **Wildlife.** Project managers will seek to establish a desired future condition without incurring the following impacts: adversely affecting a species listed or proposed for ESA listing; adversely modifying designated critical habitat for listed species; adversely affecting candidate species under the ESA, or species listed by state fish and wildlife or Tribal agencies as species

of special concern (such as endangered, sensitive, monitor, etc.); or removing habitat that has been identified by state or Tribal agencies as unique, rare, or important to wildlife distribution (such as big game winter range, waterfowl nesting areas, late-successional forest, native shrub-steppe). Depending on site-specific conditions and activities, potentially appropriate measures include the following:

a. Before implementing any active management technique, identify sensitive wildlife habitats or features (e.g., eagle and other raptor nests, mule deer winter range) and establish buffers and timing restrictions in consultation with state and/or Tribal wildlife biologists.

b. Restrict access, either seasonally or spatially, to protect sensitive wildlife areas, including recently planted areas, riparian areas, nesting areas (e.g., heron colonies), and wildlife concentration areas (e.g., wintering areas for waterfowl or for deer).

c. Use interpretive signs and on-site custodian care to reduce adverse impacts of recreation on sensitive wildlife habitats.

d. *For projects involving introduction, reintroduction, or augmentation of wildlife populations*, test animals for diseases before release.

e. Coordinate wildlife control efforts with state wildlife agencies and with Animal Damage Control, U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service. If threatened or endangered species are involved, coordinate with the USFWS.

f. Avoid vegetation removal during the nesting season for birds. Where such removal is unavoidable, conduct nest surveys for sensitive bird species before disturbing lands.

g. Conduct inventories and establish fire breaks around riparian areas before conducting prescribed burns (unless riparian areas are expected to benefit from the treatment).

h. Inventory vegetation in areas proposed for land-disturbing activities and avoid high-quality native vegetation communities (as defined by state or Tribal agencies).

4. **Vegetation.** Project managers will seek to establish a desired future condition without incurring the following impacts: adversely affecting a plant species listed or proposed for ESA listing; adversely modifying designated critical habitat for a listed plant species; adversely affecting plant species that are listed by state or Tribal agencies as species of special concern (such as endangered, sensitive, monitor, etc.); removing or disturbing plant communities that have been identified by state or Tribal agencies as unique or rare (such as late-successional forest or native shrub-steppe); or promoting or spreading noxious weeds. Depending on site-specific conditions and activities, potentially appropriate measures include:

a. *For projects involving land acquisition (including leases)*, incorporate a weed control plan in consultation with local weed control officials.

b. *For projects involving plantings on disturbed soils*, favor use of native vegetation but allow non-native or native cultivars to be planted where such plantings would better contribute to the long-term goals of habitat improvement.

c. Use conservation tillage practices for planting and maintaining vegetation, including reduced-tillage or no-tillage where possible.

d. Survey for listed or other plant species of concern before disturbing lands for planting if the USFWS identifies such species as potentially occurring in the vicinity of the project area.

e. Acquire seeds and plants from stock derived under similar environmental conditions. Local stock is preferred; on-site stock is the ideal.

f. *For projects involving wetland creation or expansion,* survey for and avoid sensitive features during early planning.

g. Avoid developing new water sources that would reduce surface flows; where reduction is unavoidable, establish, in cooperation with state water resource staff, maximum allowable reduction in flows.

h. Place guzzlers, springs, ponds, and other water developments in areas where vegetation can tolerate increased trampling from wildlife.

i. Incorporate integrated vegetation management, with minimal use of herbicides.

j. When a herbicide is needed, use species-selective herbicides and selective application techniques.

k. *For projects involving vegetation control,* develop specific protocols for use of herbicides, mechanical, and biological methods, in cooperation with local weed control boards. Protocols could be adapted from the USFS 1988 Final EIS for Managing Competing and Unwanted Vegetation.

l. *For projects involving vegetation control,* conduct weed control programs more efficiently and with a greater regional effect by using joint multi-agency planning.

m. *For projects involving forest management,* establish buffer strips along streams to protect riparian vegetation.

5. **Land and Shoreline Use.** Project managers will seek to establish a desired future condition without incurring the following impacts: converting to nonagricultural purposes farmland rating 160 or greater according to the USDA rating system (7 CFR 658.4); establishing uses not compatible with adjacent land uses and ownerships; conflicting with adopted environmental plans and goals of the community where the project is located; or disrupting or dividing the physical arrangement of an established community. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

a. Meet with county officials during early planning of mitigation areas, to try to develop the project in a manner consistent with county zoning and planning efforts.

b. *For projects involving land use changes,* meet with county commissioners and land use officials, who can provide local wisdom and help ensure coordinated, efficient, and effective use of multi-jurisdictional resources.

c. Elicit public input, which allows for application of local knowledge and for development of plans consistent with the local land use values.

d. Survey proposed alignments of water distribution systems to ensure that no rights-of-way or access routes are blocked.

e. *For projects involving prescribed burns,* identify acceptable weather conditions and air quality concerns, and develop contingency plans in the event of fire escaping to adjacent lands.

6. **Cultural and Historic Resources.** Project managers will seek to establish a desired future condition without incurring the following impacts: adverse effects on properties on or eligible for the National Register, or disturbance of Native American cultural items or religious places, or adverse effects on the exercise of Native American religion, pending consultation with the appropriate Tribe(s). Depending on site-specific conditions and activities, potentially appropriate measures include the following:

   a. Consult with the SHPO and affected tribes to identify potential occurrences of cultural resources.

   b. Where there is potential for adversely affecting cultural resources, conduct cultural resource surveys to document any resources present.

   c. Where properties on or eligible for the National Register are under management control, incorporate a cultural resource management plan.

   d. Identify opportunities to foster public appreciation of the relationship between natural resources and Tribal culture.

   e. Coordinate project activities with the appropriate and affected Tribe(s) to ensure that Tribal interests are addressed.

7. **Economics.** Project managers will seek to establish a desired future condition without incurring the following impacts: involuntary displacement of property owners or restriction of commercial uses, disruption of traffic or business activities during construction or ongoing operation, reducing local tax revenues, either directly or indirectly, to the extent that greater than 1 percent of total annual revenues are lost. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

   a. Encourage the use of available local supplies and labor to accomplish project goals and objectives.

   b. *For projects involving land acquisition (including leases),* acquire lands not currently under commercial agricultural use.

   c. *For projects involving land acquisition, in counties already containing a significant proportion of Federal lands,* favor selecting existing Federal lands.

   d. *For projects involving land acquisition (including leases),* allow revenue-generating activities consistent with biological objectives.

   e. *For projects involving prescribed burns,* develop a specific plan that outlines measures to minimize risk of escape and impact on adjacent land uses and other resources.

   f. Train and maintain a qualified and adequate work force to plan and implement prescribed burn projects safely and effectively.

g. Establish inter-local agreements with fire districts, the USFS, and other appropriate agencies to assist in controlled burn activities.

h. Involve local and downstream water users and local water agencies to ensure that project water users do not significantly affect productivity or production costs of water-dependent agriculture.

i. *For projects involving prescribed burns*, develop a specific plan that outlines measures to minimize risk of escape and impact on adjacent land uses and other resources.

j. Where traditional stock watering areas are fenced to protect riparian habitat, provide alternate sources of water, including solar-powered springs, hydro dams, or guzzlers.

k. *For projects involving introduction, reintroduction, or augmentation of wildlife populations,* involve local landowners early in the planning process to develop consensus regarding specific management parameters of wildlife introductions.

8. **Recreation / Visual.** Project managers will seek to establish a desired future condition without incurring the following impacts: creating hazards that might pose a risk to the public; disrupting recreational activities on lands adjacent to lands acquired for mitigation, or recreational activities that conflict with biological objectives, or recreational activities that conflict with Tribal rights. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

a. *For projects involving property acquisition (including leases),*identify safe public recreational opportunities that do not jeopardize project biological objectives.

b. *For projects involving property acquisition (including leases),*identify recreational opportunities suitable for physically disabled persons.

c. *For projects involving artificial nesting structures*, screen structures from sensitive viewing locations or develop designs that blend into the landscape in areas managed as National Scenic Areas.

d. *For projects involving installation of guzzlers*, screen guzzlers from sensitive viewing locations or develop designs that blend into the landscape in areas managed as National Scenic Areas.

e. *For projects involving the development of water conveyance channels*, ensure that these areas are safe for public access or else restrict public access.

f. *For projects involving prescribed burns*, identify recreational use areas within the affected environment and develop burn plans that avoid significant smoke drift into these areas during high-use periods.

g. *For projects involving the reintroduction of threatened or endangered species*, establish reintroduction sites consistent with species management and/or recovery plans.

9. **Air Quality.** Project managers will seek to establish a desired future condition without incurring the following impacts: violating Federal, state, or local ambient air quality standards; causing or contributing to a new violation of the National Ambient Air Quality Standards; increasing the frequency or severity of an existing violaton; delaying the timely

attainment of a standard; emitting more than the threshold amount of a criteria pollutant in a non-attainment area; contributing to an existing or projected air quality violation; exposing sensitive receptors (e.g., campgrounds, businesses, or residences) to irritating or harmful pollutant concentrations. Depending on site-specific conditions and activities, potentially appropriate measures include the following:

a. Restrict prescribed fire to specific conditions, such as when (1) weather conditions and forecasts are favorable to a controlled burn, (2) air quality is sufficiently high to allow local smoke emissions, and (3) smoke dispersion conditions are favorable.

b. Use state-defined smoke management direction to determine allowable smoke quantities.

c. *For projects involving the aerial application of herbicides*, develop specific protocols for use of herbicides, including protocols to protect air quality. Protocols could be adapted from the USFS 1988 Final EIS for Managing Competing and Unwanted Vegetation.

d. Do not conduct prescribed burns unless (1) weather conditions and forecasts are favorable for a controlled burn, and (2) predicted emissions will not violate local air quality standards.

Range of Alternatives Considered:

The Wildlife Mitigation Program EIS considered six alternatives, representing the range of reasonable alternatives. Alternative 1 was "No Action," or continuation of a case-by-case approach to project implementation. Under this alternative, environmental review and decisionmaking would continue to be conducted at the individual project level through separate categorical exclusions, environmental assessments, or environmental impact statements.

Alternative 2, "Base Response," would have standardized the planning and implementation of individual wildlife mitigation projects funded by BPA, but only with respect to those prescriptions already required by regulation or law. This alternative was a component of all action alternatives, including the selected alternative.

Alternative 3, "Biological Objectives Emphasis," incorporated the Base Response alternative, and added only those prescriptions oriented toward achieving the biological objectives of wildlife mitigation projects.

Alternative 4, "Cost and Administrative Efficiency Emphasis," incorporated the Base Response alternative, and added only those prescriptions oriented toward achieving cost and administrative efficiency.

Alternative 5, "General Environmental Protection," incorporated the Base Response alternative, and added only those prescriptions oriented toward protecting fish, recreation, local economic productivity (related to the natural or physical environment, and including, for instance, agricultural or forestry uses), or other resources. This alternative was environmentally preferable but was not chosen because it contains elements that would conflict with project biological objectives, or because its cost would detract from BPA's wildlife mitigation program. For example, one prescription in this alternative would be to, "Identify opportunities to foster public

appreciation of wildlife and wildlife habitat." (EIS, p. 27) While BPA considers this a worthy goal and encourages such activity to the extent it does not conflict with project biological objectives, its cost is not appropriately borne by BPA's wildlife mitigation program. On the other hand, as explained below, all practicable environmentally oriented prescriptions are included in the selected alternative.

Alternative 6, "Balanced Action," incorporated the Base Response alternative and added selected prescriptions from alternatives 3, 4, and 5 as BPA considered them appropriate for program-wide application. BPA considered all prescriptions included in the other aternatives but *not* in this alternative as inappropriate because of conflict with reasonable achievement of the biological objectives of wildlife mitigation projects, cost and administrative efficiency, and/or environmental protection. However, the selected alternative does include all practicable means to avoid or minimize environmental harm, as may generally be expected to result from planning and implementing BPA-funded wildlife mitigation projects. BPA expects that the standard project planning process adopted here will result in determining appropriate site-specific environmental protection measures.

Monitoring and Enforcement:

BPA will provide guidance to project proponents on applying the standard planning process and prescriptions adopted by this decision, and will enforce this decision through funding conditioned on substantial application of the standard planning process and presciptions. BPA may choose to disregard minor deviations that BPA considers not relevant to environmental concerns. (Project proponents are cautioned not to assume that BPA will disregard any deviation.) BPA may audit individual Project Management Plans for consistency with program requirements.

BPA will also provide project managers and interested parties an opportunity to identify problems in applying the standard planning process and prescriptions, and to suggest improvements. BPA will regularly evaluate the collective experience working under the standard planning process and prescriptions, and adapt them as BPA considers appropriate. If BPA proposes substantial changes in the standard wildlife mitigation project planning process and prescriptions that are relevant to environmental concerns, then BPA shall prepare a supplement to the Wildlife Mitigation Program EIS and request public comment prior to adopting such changes.

Cultural and Historic Resources:

BPA may yet propose one or more Programmatic Agreements for protection of cultural and historic resources in order to accomplish program-wide satisfaction of BPA responsibilities under the National Historic Preservation Act (NHPA). Until execution of such an Agreement, BPA will accomplish NHPA compliance for individual undertakings.

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Randall W. Hardy
Administrator and Chief Executive Officer

Bonneville Power Administration

PO Box 3621 Portland, Oregon 97208-3621

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