

WATERSHED MANAGEMENT PROGRAM

Final Environmental Impact Statement
DOE/EIS-0265



BONNEVILLE POWER ADMINISTRATION

WATERSHED MANAGEMENT PROGRAM
FINAL ENVIRONMENTAL IMPACT STATEMENT

July 1997

Bonneville Power Administration Watershed Management Program Final Environmental Impact Statement (DOE/EIS-0265)

Responsible Agency: Bonneville Power Administration (BPA), U.S. Department of Energy

Cooperating Agencies: Bureau of Reclamation, Natural Resources Conservation Service

Title of Proposed Action: Watershed Management Program Standards and Guidelines

States Involved: Idaho, Montana, Nevada, Oregon, Washington, and Wyoming

Abstract: Under the Northwest Power Act, BPA is responsible for mitigating the loss of fish and wildlife habitat caused by the development of the Federal Columbia River Power System. BPA accomplishes this mitigation by funding projects consistent with those recommended by the Northwest Power Planning Council (Council). The projects are submitted to the Council from Indian tribes, state agencies, property owners, private conservation groups, and Federal agencies. Future watershed management actions with potential environmental impacts are expected to include in-channel modifications and fish habitat enhancement structures; riparian restoration and other vegetation management techniques; agricultural management techniques for crop irrigation, animal facilities, and grazing; road, forest, urban area, and recreation management techniques; mining reclamation; and similar watershed conservation actions. BPA needs to ensure that individual watershed management projects are planned and carried out with appropriate consistency across projects, jurisdictions, and ecosystems, as well as over time. BPA proposes to standardize the planning and implementation of individual watershed management programs and projects funded by BPA. Alternative 1 is the No Action alternative, *i.e.*, not to establish program-wide standards. Five standardizing (action) alternatives are identified to represent the range of possible strategies, goals, and procedural requirements reasonably applicable to BPA-funded projects under a standardized approach to project planning and implementation. All action alternatives are based on a single project planning process designed to resolve site-specific issues in an ecosystem context and to adapt to changing conditions and information. Alternative 2 would prescribe only existing legal requirements (which would also form the "base" for Alternatives 3 - 6). Alternative 3 would additionally prescribe goals, strategies, and requirements emphasizing strict pursuit of project aquatic habitat objectives. Alternative 4 would emphasize cost and administrative efficiency in achieving watershed management objectives. Alternative 5 (environmentally preferred) would emphasize protection and improvement of general environmental resources in addition to watershed management objectives. Alternative 6 (BPA-preferred) would balance watershed management objectives, cost and administrative efficiency, and protection and improvement of general environmental resources. Decisions to be made are which strategies, goals, and procedural requirements, if any, should regularly apply to BPA-funded watershed management projects.

For additional information:

Eric N. Powers
Bonneville Power Administration
P.O. Box 3621-ECN-4
Portland, OR 97208-3621
(503) 230-5823
enpowers@bpa.gov

Please mail comments to:

Bonneville Power Administration
Communications Office - ACS-7
P.O. Box 12999
Portland, OR 97212
comment@bpa.gov

To receive additional copies of the EIS, call BPA's document request line at 1-800-622-4520.

For information on Department of Energy NEPA activities, please contact:

Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance, EH-42, U.S. Department of Energy, 1000 Independence Avenue SW, Washington, D.C. 20585, 1-800-472-2756; or visit the DOE NEPA Web at www.eh.doe.gov/nepa/.

BONNEVILLE POWER ADMINISTRATION

WATERSHED MANAGEMENT PROGRAM

FINAL ENVIRONMENTAL IMPACT STATEMENT

SUMMARY

Purpose of and Need for Action

Bonneville Power Administration (BPA) is responsible for mitigating impacts on fish and wildlife habitat from development of the Federal Columbia River Power System. BPA meets this responsibility primarily by funding projects submitted to and recommended by the Northwest Power Planning Council (Council). Project submissions come from Indian tribes, state agencies, property owners, private conservation groups, and Federal agencies. Future fish mitigation and watershed conservation and rehabilitation actions with potential environmental impacts are expected to include in-channel modifications and fish habitat improvement structures; riparian restoration and other vegetation treatment techniques; agricultural management techniques for crops, animal facilities, and grazing; road, forest, urban area, and recreation management techniques; mining reclamation; and similar watershed conservation actions. BPA needs to ensure that these BPA-funded individual projects are planned and managed with appropriate consistency across projects, jurisdictions, and ecosystems, as well as across time.

BPA intends to base its choices among alternatives on the following objectives:

- Achievement of the Fish and Wildlife Program's aquatic habitat objectives through an ecosystem-based approach for watershed management projects to be funded by BPA;
- Achievement of cost and administrative efficiency;
- Compliance with all laws and regulations; and
- Environmental protection.

Proposed Action and Alternatives

BPA's proposed action is to establish a comprehensive program that addresses the common issues and environmental impacts associated with management projects. With such a program in place, BPA implementation of individual watershed management projects would change in two fundamental ways.

- First, BPA's site-specific involvement would be greatly reduced as project proponents take the lead in preparing Project Management Plans according to the program requirements.

- Second, because this environmental impact statement (EIS) explores, identifies, and discloses many of the environmental impacts expected from watershed management projects, environmental review of individual projects would have a narrower, more project-specific focus, so long as project managers follow the program requirements. Additional broad environmental analysis would be required only if anticipated impacts or project components were to differ substantially from those evaluated in this EIS.

No Action

Alternative 1, No Action, would continue the current case-by-case approach to project implementation. The eight-step process (see below) would not be formally adopted to implement watershed management projects. Environmental review and decisionmaking would be conducted at the individual project level through separate categorical exclusions, environmental assessments, or EISs. BPA would continue to maintain a high level of involvement in making site-specific decisions.

Action Alternatives

Five action alternatives are evaluated and compared to accomplish the proposed action. The action alternatives identify different approaches to standardize the planning and implementation of individual watershed management projects funded by BPA. All action alternatives are based on a standard, interactive eight-step planning process (described below, under Alternative 2). Each alternative contains prescriptions (goals, strategies, and procedural requirements) that would be applied to BPA-funded watershed management projects under a standardized program.

Alternative 2, Base Response, would standardize the planning and implementation of individual watershed management projects funded by BPA, but only with respect to those prescriptions required by regulation or law. **Note that Alternatives 3 through 6 include all prescriptions listed under Alternative 2 as part of their actions.** These required prescriptions are described below, under the appropriate process step.

1. **Define the Area of Concern/Interest.** In the first step, project proponents/project managers delineate the affected watershed boundaries and project issues.

Under all action alternatives, project managers would:

- Identify watershed(s) potentially affected by the proposed project.
- 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.
- Contact the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Services (NMFS) to determine whether threatened or endangered species are known to occur or potentially occur in the vicinity of the project area.

- Identify any minority and/or low-income populations that may be adversely affected by the management project being considered (Environmental Justice).
- For projects involving ground-disturbing activities, make preliminary identification of the presence of historic and archeological resources.
- For project involving soil disturbance or channel relocation, make preliminary identification of the presence of hazardous and toxic wastes.

2. **Involve Stakeholders.** In the second step, managers gather input from affected agencies, landowners, tribes, individuals, and organizations. This step is similar to the project scoping and public involvement that occurs in a National Environmental Policy Act (NEPA) analysis. Interested parties may include individuals; interest groups; tribes; local governments; and county, state, regional, or Federal agencies.

Under all action alternatives, project managers would:

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

3. **Develop a Statement of the Desired Future Condition.** Under BPA's 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.

Under all action alternatives, project managers would:

- Identify a desired future condition that responds specifically to achievement of aquatic habitat objectives.

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.

Under all action alternatives, project managers would:

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

5. **Establish Project Goals.** In step 5, project managers identify the specific targets (in terms of conditions, outputs, features, or functions) against which progress and success will be measured.

- *No standard prescriptions required.*

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.

Under all action alternatives, project managers would:

- Take no action inconsistent with tribal legal rights, or with other legally mandated protections such as the Endangered Species Act.
- Ensure that the project does not result in disproportionately high and adverse human health or environmental effects on minority or low-income populations, in accordance with Executive Order 12898 (Environmental Justice).
- Follow State and Federal regulations for all activities in or near streams and wetlands, whether for maintenance or improvement, including (1) the Clean Water Act, Section 401, Section 404; (2) Protection of Wetlands, Executive Order 11990; (3) Floodplain Management, Executive Order 11988; and (4) Rivers and Harbors Act of 1879 (Section 10).
- Avoid activities that might adversely affect threatened and endangered species or their habitat. Document compliance with Section 7 of the Endangered Species Act.
- Use only Environmental Protection Agency (EPA)-approved pesticides, and use only in the manner specified by EPA. 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.
- Screen streambank and habitat structures from sensitive viewing locations or develop designs that comply with Wild, Scenic, or Recreational River management guidelines, as appropriate.
- For projects involving prescribed burns, obtain required permits and use state-defined smoke management direction to determine allowable smoke quantities.
- If consultation with the SHPO and tribes indicates a potential for cultural resources, conduct cultural resource surveys to document any resources that are present.
- Incorporate a cultural resource management plan or other SHPO-approved actions where deemed necessary.
- Ensure that barriers are not created that unduly restrict access for physically disabled persons where public access is allowed.
- Specify that new public-use facilities be free of barriers to persons with physical disabilities.
- Ensure that the project does not shift problems to another watershed or portion of a watershed.

- Consider the results of similar, previous projects, and consult the literature and other people doing similar types of projects to incorporate adaptive management strategies as the plan develops.

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.

- *No standard prescriptions required.*

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.

- *No standard prescriptions required.*

Note: Each of the prescriptions under Alternative 2 applies to each of the other four action alternatives described below. Additional prescriptions for each individual alternative can be found in the EIS itself, as noted below.

Alternative 3, Aquatic Habitat Objectives Emphasis, would standardize the planning and implementation process by supporting primarily those management projects with an aggressive habitat restoration approach. Funding priority would be given to improvement of in-stream habitats and of immediately adjacent riparian areas that contribute to the poor quality of those habitats. Projects in upland and urban areas might be approved where relationships between identified non-point-source pollution and fish and fish habitat are clear. Projects funded under this alternative might generally provide immediate and long-term habitat improvement through projects of larger scope, both in areas of greatest need and in areas known as aquatic refugia (strongholds of high habitat quality).

Project managers would retain a great deal of flexibility to adapt application of specific techniques and other actions to best meet the aquatic objectives of the project. (Specific management techniques are listed in Appendix A in the EIS.) Comprehensive watershed management objectives, such as protection or improvement of natural ecosystems and general species diversity, would be advanced through implementation of this Aquatic Habitat Objectives Emphasis alternative. However, benefits to non-aquatic resources, such as wildlife, would be purely coincidental to the accomplishment of aquatic objectives. **See EIS pages 14 to 17 for additional prescriptions for this alternative.**

Alternative 4, Cost and Administrative Efficiency Emphasis, would standardize the planning and implementation process by supporting only the least costly approach(es) to achieving the project's aquatic habitat objectives. Achievement of more comprehensive

watershed-scale objectives, such as protection or improvement of natural ecosystems and general species diversity, would occur only incidentally to achievement of the priority objectives.

As with Alternative 3 (Aquatic Habitat Objectives), BPA would support only those actions directly aimed at achieving the goals of the Watershed Management Program. However, whereas Alternative 3 placed an emphasis on aggressive (and generally more expensive) in-stream and riparian habitat improvement, projects funded under the management style of Alternative 4 could occur across the watershed. No preference would be given to in-stream, riparian, or upland areas, or to any one land use. Project managers would focus on minimizing administrative costs and maximizing site-specific application of watershed management funds. Managers would also be restricted to the least costly techniques available. Projects funded under this alternative would therefore provide more gradual habitat improvement through projects of smaller scope that might be removed from direct influence on aquatic habitat. Sustained, cumulative benefits would result in slow, steady improvements in fisheries and aquatic habitat, meeting only the minimum aquatic habitat objectives. **See EIS pages 17 to 20 for additional prescriptions for this alternative.**

Alternative 5, General Environmental Protection (environmentally preferred alternative), would standardize the planning and implementation process and provide coincidental benefits for fisheries, water quality, wildlife, recreation, local economic productivity (related to the natural or physical environment, and including, for instance, agricultural or forestry uses), and other resources. Projects would focus equally on fish habitat and other ecological needs throughout the watershed. Habitat improvements would occur in step with other ecological improvements.

Although all techniques addressed in this assessment could be used to improve fisheries and aquatic habitat, some would be more aggressive or "invasive" during implementation, and some might preclude benefits to other resources. Project managers would apply either selected or multiple, complementary techniques and program-wide measures as appropriate to protect all environmental resources, including soils, fish and water resources, wildlife, vegetation, and air quality. These measures would also be implemented in a manner that would avoid or reduce adverse impacts on land use and local economies dependent on agriculture, forestry, and recreation. This alternative would minimize even the immediate and short-term disturbances of implementation. **See EIS pages 20 to 24 for additional prescriptions for this alternative.**

Alternative 6, Balanced Action (BPA's preferred alternative) would standardize the planning and implementation process by undertaking the prescriptions of Alternative 2 and by achieving balance among the purposes individually emphasized in the other Action Alternatives (3, 4, and 5): (1) meeting the aquatic habitat objectives of watershed management projects, (2) achievement of cost and administrative efficiency, and (3) protection and improvement of other environmental resources, when these actions would support watershed management.

Under Alternative 6, BPA would support a wide range of actions to support fisheries, fish habitat, and aquatic ecosystems consistent with Council's goals and priorities. BPA would strongly emphasize achieving aquatic habitat objectives in the least costly manner. The preferred alternative would accept the environmental disturbances of project implementation, while planning for the prevention or control of unforeseen consequences and environmental responses through pre-project surveys, modeling of project parameters, and post-implementation monitoring. Habitat improvements would be moderate in quantity, but high in quality and sustained in benefit.

Fish habitat improvement would also be recognized as the project priority, but those projects that favor multiple resource benefits would receive funding. Project managers would apply program-wide measures as appropriate to provide maximum benefit practicable to other resources, including soils, vegetation, wildlife, and air quality. These measures would also be implemented in a manner that would avoid or reduce adverse impacts on land use and local economies dependent on agriculture, forestry, and recreation.

Alternative 6 is most similar to the current situation in terms of maintaining the balanced management strategy under which proposed management projects are funded. The primary difference between this preferred alternative and the existing situation (No Action) is that, under Alternative 6, (1) BPA would establish a standard planning process and (2) project managers would apply program-wide mitigation measures, as appropriate, to protect the environment. These two differences would allow BPA to implement watershed management programs more efficiently and with greater consistency than under the current case-by-case approach. **See EIS pages 25 to 28 for additional prescriptions for this alternative.**

Areas of Controversy

The following major issues were brought up during the scoping process.

Project planning process. Project managers want to act quickly and efficiently. Affected interests, especially tribes and county officials, want to participate in project management planning.

Social and economic concerns. People are concerned that, because our focus is on improving conditions for fish and wildlife, human concerns would be ignored. Others are concerned about the impact on farmers of additional taxes and restrictions that would affect their profitability. Some feel that there should be direct compensation for economic impacts (takings of property). Environmental studies should include land use, cultural, and historic practices.

Scope of EIS. The complete watershed needs to be covered. For example, upland range and dryland farming need to be addressed, not just the riparian zone. Some stress that the focus should be on whole aquatic ecosystems, not just specific species. Others hold that the EIS should address how the individual watersheds would be cumulatively and programmatically

linked together in order to address Columbia River Basin issues such as the hydroelectric and navigation operations and configurations in the mainstem Columbia and Snake rivers.

Who to Involve. Concerns focused on the importance of positively involving local landowners who live on the lands in the watershed, and the importance of seeking out agencies/groups with special expertise and/or information to help us. Some people hold that any watershed management program must be driven by and acceptable to the residents who live and work in the watershed.

Major Conclusions

- Watershed mitigation activities may have short-term adverse impacts on soils and water quality, with increasingly beneficial impacts in the long-term.
- Fish species and species with similar habitat needs would benefit most from watershed mitigation activities.
- Watershed mitigation sites are generally compatible with cultural resources. Ground-disturbing activities near streams and rivers often have a high probability of adversely affecting historic and cultural resources because those resources are more likely to be found there. Impacts can usually be avoided through surveys and avoidance of identified sites.

Issues to Be Resolved

Bonneville Power Administration must decide:

- whether to adopt a set of management principles to guide all watershed management projects as selected by the Council, and
- if so, which set.

In the course of making these decisions, BPA will also be resolving the following issues:

1. Whether and to what extent BPA should prescribe conditions of funding types of watershed mitigation actions.
2. Whether BPA should eliminate any watershed mitigation techniques from future funding consideration.
3. What role(s) might be most appropriate for public, tribal, and agency participation in planning proposed watershed management projects.

2

Table of Contents

Cover Sheet	<u>Page</u>
Executive Summary	ES/I
Table of Contents	i
List of Tables	v
List of Figures	v
1. PURPOSE OF AND NEED FOR ACTION	1
1.1 Underlying Need for Action	1
1.2 Purposes	2
1.3 Uses of This Document	2
1.4 Background	3
1.5 Relationship to Other Documents	4
1.5.1 Other BPA Watershed Mitigation Program Environmental Analysis	4
1.5.2 Columbia River System Operation Review (SOR) EIS	5
1.5.3 Wildlife Mitigation Program EIS	5
1.5.4 Coordination with Other Federal Agency Ecosystem EISs	5
1.6 Decisions to Be Made	6
1.7 Scoping	6
2. ALTERNATIVES INCLUDING THE PROPOSED ACTION	9
2.1 The Alternatives	10
2.1.1 The Process for Project Implementation Common to All Alternatives	10
2.1.2 Alternative 1: No Action	11
2.1.3 Alternative 2: Base Response	11
2.1.4 Alternative 3: Aquatic Habitat Objectives Emphasis	14
2.1.5 Alternative 4: Cost and Administrative Efficiency Emphasis	17
2.1.6 Alternative 5: General Environmental Protection (Environmentally preferred)	20
2.1.7 Alternative 6: Balanced Action (BPA-preferred)	24
2.1.8 Available Management Techniques	29
2.2 Comparison of Alternatives and Summary of Impacts	40

	<u>Page</u>
3. AFFECTED ENVIRONMENT	49
3.1 Setting	49
3.2 Soils	49
3.3 Water Resources and Quality	50
3.4 Fish	50
3.5 Vegetation	51
3.6 Wildlife	53
3.7 Land and Shoreline Use	54
3.8 Cultural and Historic Resources	54
3.9 Economics	55
3.10 Recreation/Visual	56
3.11 Air Quality	56
4. ENVIRONMENTAL CONSEQUENCES	57
4.1 Soils	58
4.1.1 Context	58
4.1.2 Impacts of Alternatives	58
4.1.3 Impacts of Techniques	60
4.1.4 Potential Program-wide Mitigation Measures	65
4.2 Fish and Water Resources/Quality	67
4.2.1 Context	67
4.2.2 Impacts of Alternatives	69
4.2.3 Impacts of Techniques	71
4.2.4 Potential Program-wide Mitigation Measures	78
4.3 Vegetation	80
4.3.1 Context	80
4.3.2 Impacts of Alternatives	80
4.3.3 Impacts of Techniques	82
4.3.4 Potential Program-wide Mitigation Measures	86
4.4 Wildlife	87
4.4.1 Context	87
4.4.2 Impacts of Alternatives	87
4.4.3 Impacts of Techniques	88
4.4.4 Potential Program-wide Mitigation Measures	92
4.5 Land and Shoreline Use	93
4.5.1 Context	93
4.5.2 Impacts of Alternatives	93
4.5.3 Impacts of Techniques	95
4.5.4 Potential Program-wide Mitigation Measures	97

	<u>Page</u>
4.6 Cultural and Historic Resources	99
4.6.1 Context	99
4.6.2 Impacts of Alternatives	99
4.6.3 Impacts of Techniques	101
4.6.4 Potential Program-wide Mitigation Measures	103
4.7 Economics	105
4.7.1 Context	105
4.7.2 Impacts of Alternatives	105
4.7.3 Impacts of Techniques	106
4.7.4 Potential Program-wide Mitigation Measures	111
4.8 Recreation/Visual	112
4.8.1 Context	112
4.8.2 Impacts of Alternatives	112
4.8.3 Impacts of Techniques	113
4.8.4 Potential Program-wide Mitigation Measures	116
4.9 Air Quality	117
4.9.1 Context	117
4.9.2 Impacts of Alternatives	118
4.9.3 Impacts of Techniques	119
4.9.4 Potential Program-wide Mitigation Measures	121
4.10 Cumulative Impacts	122
4.10.1 Cumulative Impacts of All Future Watershed Management Projects	122
4.10.2 Cumulative Impacts of All Future Watershed Management Projects Considered Together with Past, Present, and Future Human Actions in the Columbia River Basin	123
4.11 Relationship Between Short-Term Uses and Long-Term Productivity	123
4.12 Irreversible and Irretrievable Commitment of Resources	124
4.13 Probable Adverse Environmental Effects that Cannot Be Avoided	124
4.13.1 Soils	125
4.13.2 Fish and Water Resources/Quality	125
4.13.3 Vegetation	125
4.13.4 Wildlife	125
4.13.5 Land and Shoreline Use	125
4.13.6 Cultural Resources	125
4.13.7 Economics	126
4.13.8 Recreation	126
4.13.9 Air Quality	126

	<u>Page</u>
5. CONSULTATION, REVIEW, AND PERMITS	127
5.1 National Environmental Policy	127
5.2 Wildlife, Plants, and Habitat	127
5.2.1 Threatened and Endangered Species and Critical Habitat	127
5.2.2 Fish and Wildlife Conservation	127
5.2.3 State Fish Agencies	127
5.3 Heritage Conservation/Native Americans	128
5.3.1 Historic Places	128
5.3.2 Native Americans	128
5.4 State, Area-wide, and Local Plan and Program Consistency	128
5.5 Environmental Justice	128
5.6 Floodplains and Wetlands	129
5.6.1 Floodplains/Wetlands Assessment	129
5.7 Farmlands	130
5.8 Global Warming	130
5.9 Water Resources	130
5.9.1 Permits for Structures in Navigable Waters	130
5.9.2 Permits for Discharges into Waters of the United States	130
5.10 Public Lands	131
5.10.1 Permits for Rights-of-way on Public Land	131
5.10.2 Outdoor Recreation Resources	131
5.11 Energy Conservation at Federal Facilities	131
5.12 Pollution Control	131
5.12.1 Contract Compliance with the Clean Air and Water Act	131
5.12.2 Hazardous Waste and Toxic Substances	131
5.12.3 Drinking Water	132
5.12.4 Noise	132
5.12.5 Herbicides/Pesticides	132
5.12.6 Asbestos/Radon	132
6. REFERENCES	133
7. LIST OF PREPARERS	139
8. LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THIS EIS WERE SENT	141
DRAFT WATERSHED MANAGEMENT PROGRAM EIS: COMMENTS AND RESPONSES	CR/ 1

Bonneville Power Administration Watershed Management Program Draft EIS

GLOSSARY i

INDEX i

APPENDICES

- A AVAILABLE MANAGEMENT TECHNIQUES**
- B CONTRACTOR DISCLOSURE STATEMENT**
- C COMMENT LETTERS RECEIVED**

Page

LIST OF TABLES

Table 2-1	Relative Use of Technique Among Alternatives	30 - 40
Table 2-2	Summary of Affected Environment and Environmental Consequences	43 - 46
Table 2-3	Predicted Performance Summary	47

After Page

LIST OF FIGURES

Figure 1-1	Columbia River Basin Watersheds	2
Figure 3-1	Land Cover Characteristics	52

This page intentionally left blank.

2