



U.S. Fish & Wildlife Service

Arctic National Wildlife Refuge

**Draft Revised Comprehensive
Conservation Plan**

Draft Environmental Impact Statement

Wilderness Review

Wild and Scenic River Review

**Volume 1
June 2011**

**Prepared by Arctic Refuge and the Alaska Region
of the U.S. Fish and Wildlife Service**

**Arctic National Wildlife Refuge
101 12th Ave, Rm 236
Fairbanks AK 99701**

**Alaska Regional Office
Division of Conservation Planning and Policy
1011 East Tudor Rd MS 231
Anchorage AK 99503**

This page intentionally left blank.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, Alaska 99701-6237
(907) 456-0250



Dear Reader:

This is the draft revised Comprehensive Conservation Plan (Plan, Revised Plan) and Draft Environmental Impact Statement (EIS) for Arctic National Wildlife Refuge. It includes a Wilderness Review (Appendix H) and a Wild and Scenic River Review (Appendix I). The final version of this Plan will guide management of the Refuge for the next 15 years. The Plan outlines goals and objectives, Refuge management guidelines, and six management alternatives for addressing management issues raised by the public and the agency. The Plan also describes our evaluation of the environmental impacts associated with implementing each alternative. Additionally, the Refuge manager's preliminary reviews of the compatibility of Refuge uses with Refuge purposes are presented in Appendix G—Compatibility Determinations.

This Plan has been sent to you because public involvement in the planning process is essential for developing an effective plan. Please review and provide comment on the Plan's content no later than 90 days after the Plan was released (see our web site (<http://arctic.fws.gov/ccp.htm>) for the comments due date). Comments should be specific and should address the merits of distinct aspects of the document such as the goals, objectives, management guidelines, or alternatives, or the adequacy of the environmental analysis. We will consider your comments as we prepare the Final Plan. Objections that could have been raised at this draft stage may be waived if they are not raised until after completion of the Final Plan.

All public comments received, including respondent names and addresses, will be included in the planning record, which will be available for public review. If you, as an individual, want us to withhold your name or contact information, please state this prominently at the beginning of your comments. We will honor your request to the extent allowed by law. We are unable to withhold the names or contact information for representatives or officials of organizations or businesses.

Public meetings will be held in the communities of Arctic Village, Fort Yukon, Kaktovik, Venetie, Fairbanks, and Anchorage during the public review period. Meeting dates, times, and locations will be announced at <http://arctic.fws.gov/ccp.htm> once they are confirmed.

You may view the draft revised Plan, EIS, Wilderness Review, Wild and Scenic River Review, and a summary of these reports, online at <http://arctic.fws.gov/ccp.htm>. You may also request a hard copy of the summary or a compact disc containing complete texts of all the documents.

Comments and requests should be received by **the end of the comment period** (visit <http://arctic.fws.gov/ccp.htm> for the comments due date). Submit comments to:

Sharon Seim, Planning Team Leader
Arctic National Wildlife Refuge
101 12th Ave, Rm 236
Fairbanks AK 99701

Email: ArcticRefugeCCP@fws.gov
Phone: 907-456-0501 or 800-362-4546

Additional information about the planning process:

web: <http://arctic.fws.gov/ccp.htm>
email: ArcticRefugeCCP@fws.gov
phone: 907-456-0501 or 800-362-4546

Information about Arctic Refuge:

web: <http://arctic.fws.gov/>
facebook: [facebook.com/arcticnationalwildliferefuge](https://www.facebook.com/arcticnationalwildliferefuge)
email: arctic_refuge@fws.gov
phone: 907-456-0250 or 800-362-4546

*Thank you for participating in our planning process!
Your comments will help us prepare a better plan for the future of Arctic Refuge.*

This page intentionally left blank.

Table of Contents

Title Page	i
Dear Reader Letter	iii
Table of Contents	v
Acronyms and Abbreviations	xvii
1. Introduction	1-1
1.1 Purpose and Need for Action	1-1
1.2 Planning Context.....	1-5
1.2.1 The U.S. Fish and Wildlife Service	1-5
1.2.2 The National Wildlife Refuge System.....	1-5
1.2.3 Principles for Managing the National Wildlife Refuge System	1-6
1.3 Legal and Policy Context.....	1-9
1.3.1 Legal Guidance	1-9
1.3.2 Policy Guidance	1-9
1.3.3 Coordination with the State of Alaska	1-10
1.3.4 Coordination with Tribes.....	1-11
1.3.5 Coordination with Cooperating Agencies	1-11
1.4 Arctic Refuge Establishment and Purposes	1-12
1.4.1 Initial Establishment of the Arctic Range and the Purposes Set Forth	1-12
1.4.2 The Alaska National Interest Lands Conservation Act.....	1-18
1.5 Special Values of Arctic Refuge.....	1-20
1.5.1 Wilderness Characteristics	1-20
1.5.2 Ecological Values	1-20
1.5.3 Wildlife Values.....	1-20
1.5.4 Rivers	1-20
1.5.5 Landscape Scale and Features	1-21
1.5.6 Scientific Values	1-21
1.5.7 Native Culture and Subsistence	1-22
1.5.8 Historic and Heritage Values.....	1-22
1.5.9 Recreational Values	1-22
1.5.10 Hunting Values.....	1-22
1.5.11 A Symbolic Value	1-22
1.6 Arctic Refuge Vision and Goals.....	1-23
1.6.1 Refuge Vision Statement.....	1-23
1.6.2 Refuge Goals.....	1-23

1.7	<i>Planning Requirements</i>	1-25
1.8	<i>The Planning Process</i>	1-26
1.8.1	Design the Process	1-27
1.8.2	Initiate Public Involvement and Scoping	1-27
1.8.3	Identify Significant Issues.....	1-28
1.8.4	Develop and Analyze Alternatives.....	1-29
1.8.5	Prepare Draft Plan and Environmental Impact Statement	1-29
1.8.6	Prepare and Adopt a Final Plan	1-29
1.8.7	Implement Plan, Monitor, and Evaluate.....	1-29
1.8.8	Review and Revise Plan.....	1-29
1.9	<i>Planning Issues</i>	1-31
1.10	<i>Significant Planning Issues</i>	1-31
2.	Goals, Objectives, Management Policies, and Guidelines	2-1
2.1	<i>Refuge Goals and Objectives</i>	2-1
2.2	<i>Overview of Management Policies and Guidelines</i>	2-31
2.3	<i>Management Categories</i>	2-31
2.3.1	Intensive Management	2-31
2.3.2	Moderate Management.....	2-32
2.3.3	Minimal Management	2-32
2.3.4	Wilderness Management	2-33
2.3.5	Wild River Management.....	2-35
2.3.6	Special Management Areas	2-35
2.4	<i>Management Policies and Guidelines</i>	2-37
2.4.1	Introduction	2-37
2.4.2	Human Safety and Management Emergencies	2-37
2.4.3	Land Exchanges and Acquisitions.....	2-37
2.4.4	Land Protection Plans	2-38
2.4.5	Appropriate Refuge Uses	2-38
2.4.6	Compatibility Determinations.....	2-40
2.4.7	Mitigation	2-41
2.4.8	Coastal Zone Consistency.....	2-42
2.4.9	Cooperation and Coordination with Others.....	2-44
2.4.10	Ecosystem and Landscape Management	2-46
2.4.11	Fish and Wildlife Habitat Management.....	2-50
2.4.12	Fish and Wildlife Population Management	2-52
2.4.13	Subsistence Management	2-57

2.4.14	Public Access and Transportation Management	2-59
2.4.15	Recreation and Other Public Use	2-63
2.4.16	Public Use Facilities	2-64
2.4.17	Outreach and Education	2-65
2.4.18	Commercial Use Management.....	2-66
2.4.19	Environmental Contaminants Identification and Cleanup	2-69
2.4.20	Management of Designated Wilderness	2-70
2.4.21	Administration of the Arctic National Wildlife Refuge.....	2-71
2.4.22	Alaska Mineral Resource Assessment Program.....	2-72
2.5	<i>Management Categories Table</i>	<i>2-73</i>
2.5.1	Introduction	2-73
2.5.2	Definitions for Management Categories Table.....	2-73
3.	Issues and Alternatives	3-1
3.1	<i>Issues</i>	<i>3-1</i>
3.1.1	Significant Issues	3-1
3.1.2	Issues Considered but Eliminated from Detailed Study	3-6
3.1.3	Other Actions, Options, and Strategies.....	3-7
3.2	<i>Alternatives.....</i>	<i>3-10</i>
3.2.1	Management Actions Common to All Alternatives	3-10
3.2.2	Alternative A – Current Management.....	3-14
3.2.3	Alternative B.....	3-18
3.2.4	Alternative C.....	3-23
3.2.5	Alternative D.....	3-28
3.2.6	Alternative E	3-34
3.2.7	Alternative F.....	3-40
3.3	<i>Comparison of the Alternatives</i>	<i>3-47</i>
3.3.1	Summary of Alternatives by Major Issues.....	3-47
3.3.2	Comparison of Old and New Management Policies and Guidelines	3-47
3.4	<i>Evaluation of Alternatives.....</i>	<i>3-53</i>
3.4.1	Evaluation Criteria	3-53
3.4.2	Response to Refuge Purposes	3-53
3.4.3	Response to National Wildlife Refuge System Mission.....	3-54
3.4.4	Response to Refuge Goals.....	3-54
3.4.5	Response to Issues.....	3-54
3.4.6	Response to Biological Integrity and Ecosystem Management	3-56
4.	Affected Environment	4-1

4.1	<i>Geographic Setting</i>	4-1
4.1.1	Refuge History	4-1
4.1.2	Land Status.....	4-2
4.1.3	Special Designations	4-9
4.2	<i>Physical Environment</i>	4-16
4.2.1	Landforms and Geology.....	4-16
4.2.2	Climate.....	4-22
4.2.3	Climate Change	4-26
4.2.4	Air Quality.....	4-30
4.2.5	Soils.....	4-31
4.2.6	Permafrost	4-32
4.2.7	Oil and Gas Occurrences and Potential.....	4-35
4.2.8	Minerals.....	4-36
4.2.9	Water Resources	4-37
4.3	<i>Biological Environment</i>	4-42
4.3.1	Land Cover and Vegetation	4-42
4.3.2	Wildfire.....	4-50
4.3.3	Climate Change Impacts to Vegetation	4-53
4.3.4	Climate Change and Refuge Habitats	4-55
4.3.5	Fish	4-59
4.3.6	Birds	4-71
4.3.7	Mammals	4-86
4.4	<i>Human Environment</i>	4-120
4.4.1	Cultural and Historical Context.....	4-120
4.4.2	Transportation and Access.....	4-128
4.4.3	Description of the Socioeconomic Environment	4-132
4.4.4	Subsistence Uses	4-164
4.4.5	Visitor Use and Recreation	4-207
4.4.6	Interpretation and Environmental Education	4-229
4.5	<i>Refuge Infrastructure and Administration</i>	4-233
4.5.1	Administrative Facilities	4-233
4.5.2	Refuge Staffing.....	4-238
5.	Environmental Consequences	5-1
5.1	<i>Introduction</i>	5-1
5.1.1	Definitions	5-1
5.1.2	Cumulative Effects.....	5-2

5.1.3	Impact Topics	5-3
5.2	<i>Effects Common to Alternatives</i>	5-4
5.2.1	Management Policies and Guidelines.....	5-4
5.2.2	Wilderness Review.....	5-8
5.2.3	Rivers Reviewed for Wild and Scenic Potential.....	5-8
5.2.4	Common Effects of the Alternatives on Resource Categories.....	5-9
5.3	<i>Effects of Alternative A (Current Management)</i>	5-14
5.3.1	Impacts to the Biophysical Environment from Alternative A.....	5-14
5.3.2	Impacts to the Human Environment from Alternative A.....	5-17
5.3.3	Cumulative Effects of Alternative A	5-20
5.4	<i>Effects of Alternative B</i>	5-21
5.4.1	Impacts to the Biophysical Environment from Alternative B.....	5-22
5.4.2	Impacts to the Human Environment from Alternative B.....	5-26
5.4.3	Cumulative Effects of Alternative B	5-32
5.5	<i>Effects of Alternative C</i>	5-33
5.5.1	Impacts to the Biophysical Environment from Alternative C	5-33
5.5.2	Impacts to the Human Environment from Alternative C.....	5-38
5.5.3	Cumulative Effects of Alternative C	5-43
5.6	<i>Effects of Alternative D</i>	5-44
5.6.1	Impacts to the Biophysical Environment from Alternative D	5-45
5.6.2	Impacts to the Human Environment from Alternative D	5-49
5.6.3	Cumulative Impacts of Alternative D	5-55
5.7	<i>Effects of Alternative E</i>	5-56
5.7.1	Impacts to the Biophysical Environment from Alternative E	5-57
5.7.2	Impacts to the Human Environment from Alternative E	5-60
5.7.3	Cumulative Impacts of Alternative E	5-67
5.8	<i>Effects of Alternative F</i>	5-68
5.8.1	Impacts to the Biophysical Environment from Alternative F.....	5-68
5.8.2	Impacts to the Human Environment from Alternative F.....	5-71
5.8.3	Cumulative Impacts of Alternative F	5-75
5.9	<i>SUMMARY OF ENVIRONMENTAL CONSEQUENCES</i>	5-76
5.10	<i>Section 810 Evaluation</i>	5-87
5.11	<i>Environmental Justice</i>	5-88
5.11.1	Effects of Alternative A.....	5-89
5.11.2	Effects of Alternative B.....	5-91
5.11.3	Effects of Alternative C.....	5-93

Table of Contents

5.11.4	Effects of Alternative D.....	5-95
5.11.5	Effects of Alternative E.....	5-96
5.11.6	Effects of Alternative F.....	5-97
5.11.7	Conclusion.....	5-98
5.12	<i>Irreversible and Irretrievable Commitment of Resources.....</i>	5-99
5.13	<i>Relationship Between Local Short-term Uses and Maintenance and Enhancement of Long-term Productivity.....</i>	5-99
5.14	<i>Unavoidable Adverse Effects.....</i>	5-99
6.	Implementation and Monitoring.....	6-1
6.1	<i>Introduction.....</i>	6-1
6.2	<i>Current Step-Down Plans.....</i>	6-1
6.2.1	Fire Management Plan.....	6-1
6.3	<i>Future Step-Down Plans.....</i>	6-3
6.3.1	Integrated Cultural Resources Management Plan.....	6-3
6.3.2	Comprehensive River Management Plan.....	6-3
6.3.3	Ecological Inventory & Monitoring Plan.....	6-3
6.3.4	Research Plan.....	6-4
6.3.5	Wilderness Stewardship Plan.....	6-5
6.3.6	Visitor Use Management Plan.....	6-5
6.3.7	Land Protection Plan.....	6-6
6.4	<i>Partnership Opportunities.....</i>	6-7
6.5	<i>Implementation.....</i>	6-8
6.6	<i>Monitoring and Evaluation.....</i>	6-9
6.7	<i>Plan Amendment and Revision.....</i>	6-10

List of Maps

Map 1-1. Arctic National Wildlife Refuge.....	1-3
Map 1-2. National Wildlife Refuges in Alaska	1-7
Map 1-3. Adjacent Landowners	1-13
Map 1-4. Arctic National Wildlife Range.....	1-15
Map 3-1. Alternative A.....	3-15
Map 3-2. Alternative B.....	3-19
Map 3-3. Alternative C.....	3-25
Map 3-4. Alternative D	3-29
Map 3-5. Alternative E	3-35
Map 3-6. Alternative F.....	3-41
Map 4-1. Surface Estate Land Status.....	4-3
Map 4-2. Special Designated Areas.....	4-11
Map 4-3. Alaska Ecoregions.....	4-17
Map 4-4. Land Cover Types.....	4-43
Map 4-5. Fire History 1942-2010	4-51
Map 4-6. Frequency of Occurrence of Snow Goose Flocks with Greater Than 500 birds Observed During Aerial Surveys, 1982-2004.....	4-75
Map 4-7. Habitats and Numbers of Shorebirds Detected on Plots during Surveys, 2002 and 2004.....	4-81
Map 4-8. Range of the Central Arctic and Porcupine Caribou Herds.....	4-93
Map 4-9. Porcupine Caribou Herd Calving Area.....	4-99
Map 4-10. Observations, Satellite-Collar, and Radio-Telemetry Locations of Denning Female Polar Bears 1910-2010.....	4-109
Map 4-11. Exclusive Commercial Hunting Guide Use Areas	4-153
Map 4-12. Arctic Village Subsistence Areas for Moose, Caribou, and Dall’s Sheep.	4-169
Map 4-13. Arctic Village Subsistence Areas for Fish, Wildfowl, and Wood.....	4-171
Map 4-14. Arctic Village Subsistence Areas for Bears, Small Mammals, and Furbearers.....	4-173
Map 4-15. Village of Chalkyitsik Subsistence Areas for Bear, Moose, Caribou and Furbearers	4-179
Map 4-16. Fort Yukon Subsistence Areas for Caribou, Moose and Trapping (Furbearers)	4-183
Map 4-17. Kaktovik Subsistence Areas for Caribou.....	4-191
Map 4-18. Kaktovik Subsistence Areas for Bowhead Whales and Seals.....	4-193
Map 4-19. Kaktovik Subsistence Areas for Fish.....	4-195
Map 4-20. Venetie Subsistence Areas for Bear, Caribou, and Moose	4-199
Map 4-21. Venetie Subsistence Areas for Furbearers, Small Mammals, and Wildfowl.	4-201
Map 4-22. Venetie Subsistence Areas for Fish, Plants/Berries, and Wood	4-203

Map 4-23. Wiseman Subsistence Use Areas..... 4-205
 Map 4-24. Alaska Game Management Units 4-219

List of Figures

Figure 1-1. The Planning Process 1-26
 Figure 4-1. Projected increases in temperature and precipitation in Arctic Refuge..... 4-27
 Figure 4-2. Shorebird density on Arctic Refuge delta mudflats observed during surveys, 2007–2009. 4-83
 Figure 4-3. Diversity of mammals in Alaska and Arctic Refuge, shown as a percentage of mammal species present in North America..... 4-87
 Figure 4-4. Population trends of the Porcupine, Central Arctic and Teshepuk caribou herds in northern Alaska, Data sources: Lenart 2007a, b; Carroll 2007; Arthur and Vecchio 2009..... 4-92
 Figure 4-5. Dall’s sheep population trends in two northern drainages, Arctic National Wildlife Refuge, Alaska. Data sources: Caikoski 2008, U.S. Fish and Wildlife Service unpublished data 4-101
 Figure 4-6. Hunter success and number of Dall's sheep killed by all general hunters in Arctic National Wildlife Refuge, Alaska 1988–2007. Data source: U.S. Fish and Wildlife Service unpublished data summarized from ADFG harvest records 4-101
 Figure 4-7. Abundance of muskoxen in the Arctic National Wildlife Refuge (Unit 26C) and adjacent regions 1982–2010. Data sources: Reynolds 2006; Lenart 2007c; Cooley and McDonald 2010; Reynolds 2010; S. Arthur, wildlife biologist, ADFG, pers. comm..... 4-104
 Figure 4-8. Moose counts during fall surveys of North Slope drainages between the Canning River and Accomplishment Creek, 1986–2008 Data source: Lenart 2008. 4-107
 Figure 4-9. Moose counts along Sheenjek and Colleen Rivers south of the Brooks Range Mountains and southern reaches of the Kongakut and Firth-Mancha drainages, Arctic National Wildlife Refuge, Alaska, 1989–2004. Data source: U.S. Fish and Wildlife Service, Arctic..... 4-107
 Figure 4-10. Population trends for Arctic Refuge communities..... 4-140
 Figure 4-11. Projected change in population. Projected change in population..... 4-142
 Figure 4-12. Numbers of commercial permits issues by Arctic Refuge, 1980–2009 (excludes hunt guide permits). 4-210
 Figure 4-13. Total number of documented visitors at Arctic Refuge based on client use reports and voluntary reports from Toolik Lake and Coldfoot Visitor Center, 2001–2009. 4-211
 Figure 4-14. Comparison of guided and non-guided commercially-supported visitors to Arctic Refuge, 2001–2009..... 4-212
 Figure 4-15. Comparison of guided and non-guided commercially-supported visitors to Arctic Refuge, 2001–2009..... 4-213

Figure 4-16. Mean daily distribution of commercially-supported visitors on the Kongakut River in Arctic Refuge, 2001–2009..... 4-216

Figure 4-17. Harvest information (except caribou) from Game Management Units of Arctic Refuge over the 20-year period 1988–2008. Trapping harvest includes lynx, wolf, wolverine, and otter. 4-221

Figure 4-18. Caribou harvests from Game Management Units of Arctic Refuge during the 20-year period 1998–2008 (includes harvest on State-owned lands). 4-221

Figure 4-19. Hunting (excluding caribou) and trapping records (not number of hunters and trappers) returned to ADFG from Game Management Units 25A, 26B, and 26C during the 10-year period 1998–2008. 4-222

Figure 4-20. Trapping records of furbearers (lynx, wolf, wolverine, and otter) harvested in GMUs 25A, 26B and 26C during the 20-year period 1988–2008..... 4-223

Figure 4-21. Hunting records from Game Management Unit 25A for harvest of each big game species over the 20-year period 1988–2008..... 4-224

Figure 4-22. Harvest records (excluding caribou) from Game Management Unit 26B over the 20-year period 1998-2008..... 4-224

Figure 4-23. Caribou harvest records from Game Management Unit 26B for Arctic Refuge, 1998–2008 (includes harvest on State-owned lands)..... 4-225

Figure 4-24. Harvest records for each big game species from GMU 26C during the 10-year period 1998–2008. 4-225

Figure 4-25. Number of hits for most popular webpages for Arctic Refuge, fiscal year 2010. 4-230

List of Tables

Table 1-1. Location, dates, and attendance of public meetings 1-28

Table 2-1. Activities, public uses, commercial activities or uses, and facilities by management category..... 2-75

Table 3-1. Comparison of alternatives by major planning issue and budget and staff requirements..... 3-45

Table 3-2. Differences between current management direction in the 1988 Arctic Refuge Comprehensive Conservation Plan (Alternative A) and the new management direction proposed in this Plan (including Alternatives B, C, D, E, and F). 3-48

Table 3-3. Key differences between Minimal and Wilderness Management categories 3-52

Table 4-1. Surface land status as of October 7, 2010 4-5

Table 4-2. Average temperature, precipitation, snowfall, and snow depth 4-23

Table 4-3. Average temperatures in Arctic Refuge ecoregions 4-24

Table 4-4. Projected temperature and precipitation changes in the Refuge 4-30

Table 4-5. Land cover classes of Arctic Refuge 4-45

Table 4-6. Maximum post-breeding snow goose counts on the Refuge 4-73

Table 4-7. Estimated densities, population, and percentage of estimated shorebird populations in the 1002 Area 4-80

Table of Contents

Table 4-8. Terrestrial mammals of Arctic National Wildlife Refuge are of special interest because they are used by humans and are known to be important components of northern ecosystems	4-89
Table 4-9. Asserted RS 2477 Rights of Way	4-130
Table 4-10. Population by selected region	4-139
Table 4-11. Socioeconomic characteristics of Arctic Refuge communities	4-141
Table 4-12. Projected births, deaths, and net migration 2006–2030	4-142
Table 4-13. Housing characteristics of Refuge communities compared to State of Alaska.....	4-144
Table 4-14. Workforce characteristics.....	4-145
Table 4-15. Employment by industry sector (number of individuals).....	4-147
Table 4-16. Employment by industry sector (percent).....	4-149
Table 4-17. Number of people changing their type of employment between 1990 and 2000 in communities near Arctic Refuge; numbers in parentheses indicate a decrease in the number in that type of employment	4-151
Table 4-18. Commercial recreation and air operations permits	4-156
Table 4-19. Arctic Refuge – total Refuge budget.....	4-160
Table 4-20. Economic impacts associated with 2009 Arctic Refuge budget expenditures.....	4-161
Table 4-21. Annual cycle of subsistence activities for Arctic Village, 1970–1982.....	4-175
Table 4-22. Annual cycle of subsistence activities for Chalkyitsik, 1970–1982	4-176
Table 4-23. Annual cycle of subsistence activities for Fort Yukon, 1970–1982, 1986–1987.....	4-178
Table 4-24. Annual subsistence cycle for Kaktovik (qualitative presentation)	4-182
Table 4-25. Kaktovik community subsistence harvest surveys, major resource categories.....	4-187
Table 4-26. Estimated caribou harvest by year for Kaktovik.....	4-188
Table 4-27. Kaktovik estimated fish harvest, sample years 1985–2002	4-188
Table 4-28. Annual cycle of subsistence activities for Venetie, 1970–1982	4-190
Table 5-1. Environmental Effects.....	5-76
Table 6-1. Timeline for start and completion dates of step-down plans of Arctic Refuge.	6-6
Table 6-2. Projects and studies to be implemented by Arctic Refuge.	6-8

List of Appendices

Appendix A: Legal, Policy, and Planning Guidance

Appendix B: Consultation and Coordination with Others

Appendix C: Other Planning Efforts

Appendix D: Issues Considered but Not in Detail

Appendix E: Easements, Rights-of-Way, and Withdrawals

Appendix F: Species Lists

Appendix G: Compatibility Determinations

Appendix H: Wilderness Review

Appendix I: Wild and Scenic River Review

Appendix J: Public Scoping Comments

Appendix K: Mailing List

Appendix L: Preparers of the Plan and Planning Team Members

Appendix M: Glossary

Appendix N: Index

This page intentionally left blank.