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**Part III**

**Department of the  
Interior**

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**Fish and Wildlife Service**

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**50 CFR Part 17**

**Endangered and Threatened Wildlife and  
Plants; Designation of Critical Habitat for  
the Contiguous United States Distinct  
Population Segment of the Canada Lynx;  
Final Rule**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AU52

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for the contiguous United States distinct population segment of the Canada lynx (*Lynx canadensis*) (lynx) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 1,841 square miles (mi<sup>2</sup>) (4,768 square kilometers (km<sup>2</sup>)) fall within the boundaries of the critical habitat designation, in three units in the States of Minnesota, Montana, and Washington.

**DATES:** This rule becomes effective on December 11, 2006.

**ADDRESSES:** Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours, at the Montana Ecological Services Office, 585 Shepard Way, Helena, Montana 59601 (telephone 406/449-5225). The final rule, environmental assessment, and economic analysis are available via the Internet at <http://mountain-prairie.fws.gov/species/mammals/lynx/criticalhabitat.htm>.

**FOR FURTHER INFORMATION CONTACT:**

Mark Wilson, Field Supervisor, Montana Fish and Wildlife Office, at the above address, (telephone 406/449-5225); Gordon Russell, Field Supervisor, Maine Field Office (207/827-5938); Tony Sullins, Field Supervisor, Twin Cities Field Office (Minnesota) (612/725-3548); or Susan Martin, Field Supervisor, Upper Columbia Fish and Wildlife Office (Washington) (509/891-6839).

**SUPPLEMENTARY INFORMATION:****Role of Critical Habitat in Actual Practice of Administering and Implementing the Act**

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting

habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under section 4(b)(2) of the Act, there are significant limitations on the regulatory effect of designation under section 7(a)(2) of the Act. In brief, (1) designation provides additional protection to habitat only where there is a Federal action, known as a "nexus", that triggers consultation under section 7 of the Act; (2) the protection is relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would in fact take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat. However, designation of critical habitat does not require specific actions to restore or improve habitat.

Currently, only 475 species, or 36 percent of the 1,310 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,310 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas originally proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*. In that case, the Ninth Circuit invalidated the Service's regulation defining "destruction or adverse modification of critical habitat." In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas in this final designation. The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office prior to completion to ensure that an

adequate analysis has been conducted that is informed by the Director's guidance.

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

In light of these circumstances, the Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

**Procedural and Resource Difficulties in Designating Critical Habitat**

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with limited ability to provide for public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed deadlines. This in turn fosters a second round of litigation

in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 *et seq.*). These costs directly reduce the funds available for direct and tangible conservation actions.

### Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this rule. For more information, refer to the proposed critical habitat rule published in the **Federal Register** on November 9, 2005 (70 FR 68294); the notice reopening the public comment period and clarifying the proposed critical habitat designation, published on February 16, 2006 (71 FR 8258); the notice reopening the comment period that published on September 11, 2006 (71 FR 53,355); the final listing rule published on March 24, 2000 (65 FR 16052); and the clarification of findings published on July 3, 2003 (68 FR 40076).

### Previous Federal Actions

For more information on previous Federal actions concerning the lynx, refer to the final listing rule published in the **Federal Register** on March 24, 2000 (65 FR 16052), and the clarification of findings published in the **Federal Register** on July 3, 2003 (68 FR 40076). As a result of litigation from Defenders of Wildlife, *et al.*, the U.S. District Court for the District of Columbia instructed us to propose critical habitat by November 1, 2005, and to issue a final rule for critical habitat by November 1, 2006. The proposed rule to designate critical habitat for the lynx was published in the **Federal Register** on November 9, 2005 (70 FR 68294). A notice reopening the public comment period and clarifying the proposed critical habitat designation was published on February 16, 2006 (71 FR 8258). A Notice of Availability of the draft economic analysis and draft environmental assessment was published on September 11, 2006 (71 FR 53355). This final rule has been

completed in compliance with the Court order.

On September 29, 2006, U.S. District Court for the District of Columbia remanded one element of the 2000 listing decision for lynx. The Court requires the Service to explain how “[c]ollectively the Northeast, Great Lakes, and Southern Rockies do not constitute a significant portion of the [Lynx] DPS.” The Court reasoned that “an explanation of an important finding in that prior decision, especially when the explanation (or even the modification or rejection of that explanation) may be relevant to the new rationale it is offering for that decision.” The Court hoped that the Service can accomplish its task within 90 days, but did not identify a deadline for the remanded decision in its Order. The Service anticipates it will address this issue before the end of this year or early next year, and will make its explanation available in the **Federal Register**.

### Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the lynx published on November 9, 2005 (70 FR 68294). A notice reopening the public comment period and clarifying the proposed critical habitat designation was published on February 16, 2006 (71 FR 8258). We also contacted appropriate Federal, State, and local agencies; tribes; scientific organizations; and other interested parties and invited them to comment on the proposed rule. The comment period was open from November 9, 2005, to February 7, 2006. It was reopened on February 16 for an additional 74 days until April 30, 2006. On September 11, 2006 (71 FR 53355), the comment period was reopened to receive comment on the draft economic analysis and draft environmental assessment. Comments and new information received that were relevant to the final designation are addressed in the following summary and incorporated into the final rule as appropriate.

During the comment period for the proposed rule that was open between November 9, 2005, and April 30, 2006, we received a total of 8,028 comment letters. For the comment period open from September 11, 2006 to October 11, 2006 we received 1,118 comments. A majority of the comments received were form letters. Comments were received from Federal, State, tribal and local governments, non-government organizations, private businesses, and individuals.

### Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from eleven knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from seven of the peer reviewers. The peer reviewers had differing assessments of our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for the lynx and addressed them in the following summary.

#### Peer Reviewer Comments

1. *Comment:* Some peer reviewers believed that our criteria (especially regarding evidence of occupancy and reproduction) for defining lynx critical habitat were too narrow and/or arbitrary, and resulted in us not including areas they consider important to lynx conservation, particularly the Kettle Range, the Greater Yellowstone Area, the Southern Rockies/Colorado, and a slightly more extensive area in Minnesota. Additionally, we received general comments recommending we designate critical habitat according to the lynx recovery outline, which included the areas of concern noted above by peer reviewers in addition to areas considered secondary or peripheral to recovery. General comments also were concerned with our criteria, asserting we should not restrict our designation solely to areas with confirmed evidence of the presence of reproducing lynx populations because lynx surveys have not been adequate to detect all reproducing lynx populations.

*Our response:* Critical habitat contributes to the overall conservation of listed species, but does not by itself achieve conservation. It is not the intent of the Act to designate critical habitat for every population or occurrence of lynx. In the “Criteria Used To Identify Critical Habitat” section of the proposed and final critical habitat rules, we describe the parameters used for delineating areas that contain the physical and biological features essential to the conservation of lynx, as required by the definition of critical

habitat when considering occupied areas. We determined that occupied areas containing the features essential to the conservation of lynx support the majority of recent lynx records and evidence of breeding lynx populations since 1995, and have direct connectivity with lynx populations in Canada. We relied on records since 1995 to ensure that the proposed critical habitat designation was based on the data that most closely represented the current status of lynx in the contiguous United States and the geographic area occupied by the species. Although the average life span of a wild lynx is not known, we assumed that a lynx born in 1995 could have been alive in 2000 or 2003, the dates of publication of the final listing rule and the clarification of findings. Furthermore, lynx-related research in the contiguous United States substantially increased after the 1998 proposal to list, providing additional information on which to base this proposed critical habitat designation. We recognize that adequate surveys to confirm the presence of breeding lynx populations have not occurred everywhere throughout the species' range; however, no information was provided to us to suggest where there might be undetected breeding populations that we should more closely evaluate for designation as critical habitat other than the areas we already considered. We found the additional areas suggested by commenters were not essential to the conservation of the lynx.

The areas we considered in our methodology for defining critical habitat for the lynx did not mirror the exact areas identified in the recovery outline, but it did reflect the biological concepts considered important in the recovery plan. We used the best science available in determining those areas that contained the features essential for the conservation of lynx. As explained on pages 68302 to 68303 of the critical habitat proposal (November 9, 2005; 70 FR 68294), the areas we determined to be essential for the conservation of lynx do not include all the areas identified in the recovery outline. This is because the criteria we used for determining areas essential to the conservation of lynx for the critical habitat designation based on the critical habitat requirements of the Act which are more selective than those used for delineating the recovery areas in the lynx recovery outline.

The recovery outline more broadly encompassed older records of lynx and did not focus solely on areas directly connected with populations in Canada, although in the recovery outline it was recognized that maintaining

connectivity with Canadian lynx populations was important. Furthermore, the areas in the recovery outline were mapped conceptually and, therefore, include substantial areas which do not contain PCEs for Lynx, which are unoccupied, and therefore not essential to the conservation of Lynx. We refined our mapping for the purposes of designating critical habitat in order to meet the statutory requirements associated with a rulemaking designating critical habitat. As a result, areas determined to be essential to the conservation of lynx for the purposes of critical habitat did not include the entire areas delineated in the recovery outline.

Specifically, following our methodology, the Kettle Range (WA) and Greater Yellowstone core areas and the Southern Rockies provisional core area were determined not to be essential to the conservation of lynx for the purposes of critical habitat as described in detail in the Criteria Used To Identify Critical Habitat section of the proposed rule (November 9, 2005; 70 FR 68294). To summarize: There is no evidence that a lynx population has occupied the Kettle Range since 1995. In the Greater Yellowstone Ecosystem, lynx habitat appears to be of lower quality as indicated by the low numbers of lynx records, and it is not directly connected to lynx populations in Canada. In the Southern Rockies it is still uncertain whether a self-sustaining lynx population will become established as a result of Colorado's reintroduction effort, but we recognize this reintroduction has been an important step, although not essential, toward the recovery of lynx, and thus it is included in the recovery plan, but not the critical habitat designation. Finally, the Southern Rockies are not directly connected to lynx populations in Canada.

A substantial portion of the lynx habitat in the Kettle range, the Greater Yellowstone Area, and the Southern Rockies areas is on Federal lands, particularly U.S. Forest Service (USFS) lands, which conveys considerable management attention for lynx; as a result, these areas do not meet the critical habitat definition. Under a formal conservation agreement with the Service, the USFS committed to largely avoiding adverse effects to lynx and using the Lynx Conservation Assessment and Strategy (LCAS) to guide section 7 effects determinations for lynx pending amendments to Land and Resource Management Plans (LRMPs) that provide guidance for the conservation of lynx (USFS and Service 2006, entire). The LCAS is based on the

best available science for lynx (see section 3(5)(A) discussion below). As a result, lynx habitat in these three areas is not in need of special management or protection.

2. *Comment:* Some peer reviewers disagreed with or didn't understand our rationale for removing USFS and Bureau of Land Management (BLM) lands from the designation because these lands support a majority of lynx habitat or lynx occurrence records in their respective geographic regions. One peer reviewer supported removing such lands. Additionally, we received numerous general comments either opposing or supporting the removal of USFS and BLM lands, concerned that not all the LRMPs are complete or will change over time. Others are concerned that recent changes to the 2005 National Forest System Land and Resource Management Planning rules weaken the protective measures in LRMPs.

*Our response:* U.S. Forest Service lands have been removed from the designation because either their LRMP has already been revised to incorporate lynx conservation measures, as is the situation with the Superior National Forest (NF), or the other National Forests that are operating under a Conservation Agreement with the Service in which the USFS agreed to use the LCAS to guide section 7 effects determinations for lynx (see Application of Section 3(5)(A) discussion, below). The LCAS is the basis for implementing this Conservation Agreement and the Superior NF plan revision. As explained starting on page 68307 of the proposed rule, the LCAS is based on the best available science for lynx. Bureau of Land Management lands, including the Garnet Resource Area and the Spokane District, were removed from the proposed designation because they had already incorporated the provisions of the LCAS into their Resource Management Plans (see Application of Section 3(5)(A) of the Endangered Species Act discussion, below).

Regarding concerns that the 2005 National Forest System Land and Resource Management Planning rules weaken protective measures in the LRMPs, to date, none of the plan amendments for lynx have been completed under the USFS 2005 Planning Rules, and so any conclusions regarding the effect of the rules is speculative. However, we note that future revisions to Forest Service Management Plans will consider the LCAs and include plan direction to provide for the needs of the lynx, pursuant to the MOU between the FWS and USFS.

3. *Comment:* Some peer reviewers were concerned about using the LCAS as a basis for removing lands, such as USFS, from the designation because it is not yet known from a scientific standpoint if the measures in the LCAS will be adequate to conserve lynx. Another peer reviewer agreed that the LCAS was based on the best available science, but was concerned whether it would be kept up-to-date as new information becomes available. Some peer reviewers believed the management scope of the LCAS is limited and, therefore, is unlikely to provide the level of conservation that would be achieved under a critical habitat designation. Additionally, we received general comments with similar concerns about the LCAS or suggesting the LCAS isn't being implemented appropriately.

*Our response:* As explained starting on page 68307 of the proposed rule, the LCAS is based on the best available science for lynx. The LCAS describes how and when updates will occur and that such updates will be based on the best current lynx science. In fact, revision of the LCAS is currently underway. Commenters did not provide specific examples of how the LCAS has not been properly implemented, and we have no information indicating this is the case. As described in the Application of Section 3(5)(A) of the Endangered Species Act discussion, below, USFS and Service are parties to a conservation agreement that requires the FS to use the LCAS to guide section 7 effects determinations for lynx; all projects in lynx habitat on USFS lands undergo section 7 review and we have no indication the USFS is not adhering to the guidance in the LCAs.

4. *Comment:* One peer reviewer questioned our determination that non-Federal lands require special management because lynx currently use a variety of non-Federal lands that support good lynx habitat as a result of past forest management practices. Prey densities in 15 to 20 years will be determined by current forest management.

*Our response:* We agree and for this reason, in addition to other reasons, we have excluded all non-Federal lands from the designation (see Exclusions Under Section 4(b)(2) of the Act discussion, below).

#### General Comments

1. *Comment:* Many commented that our discussion of the value of designating critical habitat, and the procedural and resource difficulties involved, was inappropriate and should

be addressed in a different forum, not in a critical habitat rule.

*Our response:* As discussed in the sections "Designation of Critical Habitat Provides Little Additional Protection to Species," "Role of Critical Habitat in Actual Practice of Administering and Implementing the Act," and "Procedural and Resource Difficulties in Designating Critical Habitat" and other sections of this and other critical habitat designations, we believe that, in most cases, other conservation mechanisms provide greater incentives and conservation benefits than does the designation of critical habitat. These other mechanisms include the section 4 recovery planning process, section 6 funding to the States, section 7 consultations, the section 9 protective prohibitions of unauthorized take, the section 10 incidental take permit process, and cooperative programs with private and public landholders and Tribal nations.

2. *Comment:* Many commenters agreed with our discussions in "Designation of Critical Habitat Provides Little Additional Protection to Species," "Role of Critical Habitat in Actual Practice of Administering and Implementing the Act," and "Procedural and Resource Difficulties in Designating Critical Habitat" and, as a result, questioned why we would designate critical habitat for the lynx. Additional comments suggested that critical habitat should not be designated because lynx are doing fine without it.

*Our response:* Section 4(a)(3) of the Act requires that critical habitat be designated for listed species. The lynx was listed as a threatened species under the Act on March 24, 2000 (65 FR 16052). Under section 4(b)(2), the Act requires that a critical habitat designation be made on the basis of the best scientific data available and after taking into consideration the economic impact and any other relevant impact of specifying any particular area as critical habitat. Furthermore, the Service is under an order from the U.S. District Court for the District of Columbia to issue a final rule for critical habitat by November 1, 2006.

In developing this final rule, we considered whether some areas should be designated as critical habitat given the issue the commenters identified about the status of lynx without critical habitat. We took a closer look at the necessity of designating critical habitat on lands managed by non-Federal landowners to determine whether current management was sufficient to conserve lynx. As a result of our additional analysis, we have excluded additional lands from this final rule

based on the sufficiency of current management and other reasons (see Exclusions Under Section 4(b)(2) of the Act discussion, below).

3. *Comment:* Numerous commenters asserted that the designation of critical habitat results in an increased regulatory burden, increased landowner costs, and restricted land uses and property rights. Specifically, many private landowners, particularly private timber companies, State, and county entities, commented that this designation would cause them harm economically and delay projects through the regulatory process.

*Our response:* We have excluded all non-Federal lands from the final designation for the reasons described below in the "Exclusions Under Section 4(b)(2) of the Act" discussion, which resolves these concerns. The designation of critical habitat does not itself result in the regulation of non-Federal actions on private lands. However, as discussed in the sections "Designation of Critical Habitat Provides Little Additional Protection to Species," "Role of Critical Habitat in Actual Practice of Administering and Implementing the Act," and "Procedural and Resource Difficulties in Designating Critical Habitat," and other sections of this and other critical habitat designations, we believe that, in most cases, other conservation mechanisms provide greater incentives and conservation benefits than does the designation of critical habitat. These other mechanisms include the section 4 recovery planning process, section 6 funding to the States, the section 9 protective prohibitions of unauthorized take, the section 10 incidental take permit process, and cooperative programs with private and public landholders and Tribal nations. We note that on non-Federal lands there often are no Federal actions necessitating evaluation under section 7 of the Act. The economic issues raised have been addressed in the economic analysis and have been considered during the designation process.

4. *Comment:* Some commenters suggested that the designation will result in an increased regulatory burden because State or local governments (such as county land use planning boards) could promulgate local rules to conserve designated lynx critical habitat.

*Our response:* We recognize that State and local governments can promulgate regulations or local rules that may be linked to a critical habitat designation. This issue will not be a concern because we have excluded all lands from the final designation except National Parks

(see “Exclusions Under Section 4(b)(2) of the Act” discussion below).

5. *Comment:* Some commenters stated that our comment periods for the proposed rule, NEPA document, and economic analysis were inadequate to allow the public to understand and comment meaningfully on the proposed rule.

*Our response:* The proposed critical habitat rule for the lynx was available to the public for review and comment for 90 days (November 9, 2005, to February 7, 2006.) It was reopened on February 16 for an additional 74 days until April 30, 2006. The amount of time available for the public to comment on the proposed rule was substantially more than for most critical habitat proposals, and was the maximum time practical given the one-year period we had to finalize the rule. The comment period for the economic analysis and NEPA document was open for 30 days, from September 11 to October 11, 2006. We believe the length of the comment period was adequate.

6. *Comment:* Some commenters stated that the Service did not adequately notify landowners about the proposal or where proposed critical habitat was located.

*Our response:* Because of the large scope of the proposed designation it was not possible to contact each landowner. However, we issued a widely-disseminated news release regarding our proposal, and published legal notices in major newspapers in areas involved in the proposal. We published **Federal Register** notices, including the critical habitat proposal, reopening of the comment period, and the notice of availability of draft documents. We sent hundreds of letters, cards, and e-mails to State and Federal agencies, tribal governments, local governments, private individuals, private companies, non-government organizations, and elected officials announcing the proposal, document availability, and public meetings and hearings. We also issued press releases concurrent with **Federal Register** notice announcements. A Web page of lynx critical habitat materials and information has been maintained at <http://mountain-prairie.fws.gov/species/mammals/lynx/criticalhabitat.htm>. Public hearings, open houses, and meetings on the published proposal were held on the following dates and locations: December 7, 2005, Duluth, MN; December 14, 2005, Orono, ME; January 4, 2006, Helena, MT; January 5, 2006, Great Falls, MT; January 10, 2006, Kalispell, MT; January 18, 2006, Twisp, WA. In the proposed rule we provided contact information for four Service Field Offices for anyone seeking

assistance with the proposed critical habitat. Therefore, we believe that we made a conscientious effort to reach all interested parties and provide avenues for them to obtain information concerning our proposal and supporting documents.

We recognize the scale of the maps published in the **Federal Register** made it difficult to accurately identify whether particular parcels of land were included within the proposed designation. However, the descriptions that begin on page 68313 of the proposed rule (November 9, 2005; 70 FR 68294) were provided to assist the public in understanding exactly which lands were proposed as critical habitat.

7. *Comment:* Many commenters expressed concern that commercial and recreational activities such as logging, mining, snowmobiling, off-road vehicles, and downhill skiing, would be prohibited or severely restricted by a designation of critical habitat.

*Our response:* This issue is no longer a concern because we have excluded all lands from the final designation except National Parks (see “Exclusions Under Section 4(b)(2) of the Act” discussion below). All other lands were removed or excluded from the final designation because of existing conservation commitments or because the benefits of excluding these areas exceeded the benefits of including the areas (see Application of Section 3(5)(A) of the Endangered Species Act and Exclusions Under Section 4(b)(2) of the Act discussions, below).

Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or result in the destruction or adverse modification of critical habitat. If a Federal agency action, such as an action by the National Park Service (NPS), may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, the action agency ensures that their actions do not destroy or adversely modify critical habitat. Section 7 of the Act does not apply to activities on private or other non-Federal lands where there is not a Federal action that triggers consultation, and critical habitat designation would not provide any additional protections under the Act for private or non-Federal activities. Critical habitat would not prohibit private or commercial activities from occurring unless they were occurring on the designated National Park System lands and we determined through a consultation that they would destroy or

adversely modify critical habitat. We think this outcome would be highly unlikely given that the mission of the NPS largely prevents private or commercial activities that would result in major impacts to habitat. All parties—Federal, State, private, and tribal—are unable to take (e.g., harm, harass, pursue) listed species under section 9 without the appropriate permit.

8. *Comment:* Some comments recommended excluding areas where landowners participate in the Sustainable Forestry Initiative (SFI) program.

*Our response:* The SFI program is a condition for membership in the American Forest and Paper Association. The SFI program is a comprehensive system of principles, objectives and performance measures developed by foresters, conservationists and scientists, that combines the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality (American Forest and Paper Association 2006). The SFI program appears well-intentioned, and can provide benefits to wildlife, and promotes wildlife conservation. The SFI program contains a number of principles and objectives that generally pertain to overall forest health. The objective that is most pertinent to lynx conservation is “[t]o manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand- and landscape-level measures that promote habitat diversity and the conservation of forest plants and animals, including aquatic fauna.” Therefore, participation in the SFI program is partially a basis for our decision to exclude non-Federal lands managed for commercial forestry from the designation (see Exclusions Under Section 4(b)(2) of the Act discussions, below).

9. *Comment:* Some commenters asserted the designation of critical habitat constitutes an uncompensated taking of private property and is therefore illegal.

*Our response:* This issue is no longer a concern because we have excluded all lands from the final designation except National Parks (see Exclusions Under Section 4(b)(2) of the Act discussion below). Additionally, the mere promulgation of a regulation, like the enactment of a statute, does not take private property unless the regulation on its face denies the property owners all economically beneficial or productive use of their land. Further, in accordance with Executive Order 12630 (“Government Actions and Interference

with Constitutionally Protected Private Property Rights”), we have analyzed the potential takings implications of designating critical habitat for the lynx in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the lynx does not pose significant takings implications.

10. *Comment:* Some commenters asserted that the proposed rule failed to adequately identify the physical or biological features (primary constituent element or PCE) essential to the conservation of the lynx. Some commenters stated the PCE needs to be more narrowly defined. Some commenters suggested that lynx use a wider variety of forest types than those described in the PCE or that lynx subsist on prey other than snowshoe hares. A few commenters claimed that snow is not essential to the lynx because there is no snow in summer.

*Our response:* The features essential for the conservation of the species were determined based on the best scientific data available on lynx and snowshoe hare ecology. As more thoroughly described in the “Primary Constituent Element” section of the proposed rule, starting on page 68299, we determined the PCE to be (1) Boreal forest landscapes supporting a mosaic of differing successional forest stages and containing: (a) presence of snowshoe hares and their preferred habitat conditions, which include dense understories of young trees or shrubs tall enough to protrude above the snow; (b) winter snow conditions that are generally deep and fluffy for extended periods of time; and (c) sites for denning that have abundant, coarse woody debris, such as downed trees and root wads. We recognize the value of observable or measurable standards. Unfortunately, current science is not sufficient to tell us, for example, the minimum density of snowshoe hares necessary to support a reproducing lynx population, nor is there reliable scientific information regarding a specific density or size of coarse woody debris such that a lynx would select for a den site, nor the precise snow conditions (such as depth or other properties) that provide a lynx an advantage over other potential competitors such as coyote or bobcat. As a result, our description of the PCE is as specific as the current science will allow.

The best scientific information has demonstrated that lynx are highly adapted to preying on snowshoe hares and that snowshoe hare density is the most important factor explaining the persistence of lynx populations (see 65

FR 16052, March 24, 2000; 68 FR 40076, July 3, 2003; background section of 70 FR 68294, November 9, 2005; Steury and Murray 2004, p.136). As a result, we determined that habitats containing the features essential to the conservation of lynx are those that support snowshoe hares, despite the fact that lynx are known to prey opportunistically on other small mammals and birds. Lynx populations are found in habitats that support abundant snowshoe hares. Such habitats are generally described as boreal forest or cold temperate forests (Frelich and Reich 1995, p, 325; Agee 2000 pp. 43–46). Because lynx are capable of traveling long distances, they have been documented in a variety of habitat types, but habitat types that are incapable of supporting abundant snowshoe hares are not considered essential to the conservation of lynx. The commenters are correct that most of the areas included in the lynx critical habitat designation do not have snow in summer. Lynx and snowshoe hares are highly evolved to survive deep and/or fluffy snow, which is why we specified winter snow conditions as a component of the PCE. The presence of deep, fluffy snow in the winter gives lynx the competitive advantage over similar-sized carnivores and is a reliable indicator of the most important habitat for lynx persistence in the contiguous United States. All of the areas we are designating as critical habitat have deep, fluffy snow in winter, and this feature is essential to lynx conservation.

11. *Comment:* Some commenters stated that many of the lands included in the proposed designation do not contain the physical and biological features (PCE) identified as being essential to the conservation of the lynx. Additional comments asserted the boundaries we used (such as the 4,000-foot (ft) (1,219-meter (m)) elevation contour or highways) were arbitrary or overly broad.

*Our response:* The 4,000-ft (1,219-m) elevation contour is used to delineate the boundary within Glacier National Park west of the Continental Divide and the boundary within North Cascades National Park east of the Crest of the Cascade Mountains. As described on page 68299 of the Methods section of the proposed rule (November 9, 2005; 70 FR 68294), the features essential to the conservation of lynx, the majority of lynx records, the evidence of reproduction, and the boreal forest types are found above 4,000 ft in these areas.

Based on recently received landscape-scale vegetation maps for the Northern Rockies and Cascades proposed critical habitat units, we removed public land survey sections that were primarily

unforested from the designation. We reviewed aerial photos for particular parcels identified by commenters as not supporting the PCE (such as Minnesota Power and Cleveland Cliffs in Unit 2), and determined that these parcels do not support the PCE. On that basis we removed them from the designation. A 1-mi (1.6-km) buffer along the Lake Superior shoreline and a 10-mi (16-km) circular buffer around Duluth, MN, were removed based on aerial photography showing that existing development in Unit 2 is concentrated in these areas (Industrial Economics, Incorporated 2006, p. 4–12), limiting the potential of any lynx habitat intermingling in these areas.

12. *Comment:* Some commenters recommended that we designate critical habitat in unoccupied habitat. Others suggested that critical habitat units should encompass all lynx occurrence records.

*Our response:* As explained on page 68298 of the proposed rule (November 9, 2005; 70 FR 68294), the data that define the current and historical range of the lynx at the time of listing constitute the geographic area occupied by the species. At the time of listing, we did not consider any areas within the current or historical range to be unoccupied because the lynx is highly mobile and survey information was spotty and incomplete. We considered critical habitat in areas that have the highest likelihood of supporting reproducing populations of lynx based on: (1) The presence of the PCE; (2) the majority of recent lynx records; (3) recent evidence of breeding lynx populations; and (4) direct connectivity with lynx populations in Canada. Many historic records of lynx occur in areas that do not support extensive boreal forest and abundant snowshoe hares. No evidence suggests that these areas ever supported self-sustaining populations of lynx in the past 100 years (e.g., Oregon) (Aubry 2006, p.2). Pursuant to section 3(5)(A) of the Act, critical habitat shall not include the entire geographical area that can be occupied by the species unless otherwise determined by the Secretary. We have concluded that not all occupied habitat is essential to the conservation of the lynx.

13. *Comment:* Some commenters stated that private lands have few to no Federal actions requiring consultation under section 7 of the Act, suggesting little need or benefit of designating critical habitat on private lands.

*Our response:* We agree. The fact that Federal actions requiring consultation under section 7 of the Act occur infrequently on private lands weighed into our decision to exclude all private

lands from the designation, including lands managed for commercial forestry, small landowners, and lands not managed for commercial forestry because the benefit of excluding these areas exceeded the benefit of including them (see "Exclusions Under Section 4(b)(2) of the Act" discussion, below). Small land parcels and lands not managed for commercial forestry have a minor influence on the features essential to the conservation of lynx because they are small in size relative to the large landscape required to support lynx, particularly compared to the important role and large scale of National Forest lands and lands managed for commercial forestry.

14. *Comment:* Some commenters were concerned that critical habitat designation will create a disincentive for lynx conservation on private lands because consultation under the Act is triggered when landowners participate in Federal programs such as conservation easements or receive Federal funding. Owners of private timber lands said they would be reluctant to accept Federal funding intended to encourage the conservation of private forest lands, such as the USFS Forest Legacy Program, because of the consultation requirement.

*Our response:* We considered this factor in weighing whether the benefit of exclusion of lands from critical habitat designation exceeded the benefit of their inclusion in critical habitat (see "Exclusions Under Section 4(b)(2) of the Act" discussion of section 4(b)(2) exclusions below). As a result, we have excluded non-Federal lands from the final designation. We are obligated to note that Federal funding for conservation on private lands would still be subject to section 7 consultation in areas that are occupied by lynx. However, this requirement has existed since the lynx was listed and is unchanged by our designation of critical habitat.

15. *Comment:* Some commenters believe that designation of critical habitat prior to completion of a lynx recovery plan or other lynx conservation guidance is premature.

*Our response:* Section 4(a)(3) of the Act requires that critical habitat be designated for listed species within a year of listing. The lynx was listed as a threatened species under the Act in 2000 (March 24, 2000; 65 FR 16052). The designation is made on the basis of the best scientific data available and after taking into consideration the economic impact and any other relevant impact of specifying any particular area as critical habitat. Furthermore, the Service is under an order from the U.S.

District Court for the District of Columbia to issue a final rule for critical habitat by November 1, 2006. Therefore, we must proceed with the designation although a recovery plan has not yet been drafted for the lynx.

16. *Comment:* Some commenters pointed out that some of the occurrence data we used to support the proposed critical habitat designation were based on winter track surveys, particularly from Maine, although in the proposed rule we said we only used winter track survey data when confirmed by genetic (DNA) testing.

*Our response:* We did not include any lands in Maine in the final designation; therefore, this issue is moot. The pooling of snow track survey results with other verified evidence of lynx occurrence was an oversight. However, because of the stringent protocols used in confirming tracks as lynx and the minimal number of species in the area with which lynx tracks could be misidentified in Maine (McCullough 2006), we have high confidence in the accuracy of the Maine snow track data that was incorporated into the data used for the proposed designation.

17. *Comment:* Some commenters suggested that better snow information should have been used to delineate critical habitat boundaries.

*Our response:* As explained on page 68301 of the proposed rule (November 9, 2005; 70 FR 68294), snow conditions also determine the distribution of lynx. However, available scientific information does not allow us to identify whether a precise snow depth and/or other quality, such as surface hardness or sinking depth, defines lynx use or preference. Information on average snow depth is limited to areas with good coverage by weather stations that record snow depth data. We were able to use average snow depth maps based on weather station data to inform our consideration of lands in Maine and Minnesota. However, in mountainous areas such as the Northern Rockies and Cascades, few weather stations exist, and local topography strongly influences snow conditions. Therefore, snow depth maps were not used for the Northern Rockies or Cascades units, where we relied on lynx occurrence records, vegetation data, and elevation.

18. *Comment:* Some commenters suggested the critical habitat units or the PCEs do not encompass all the areas or features essential to the conservation of lynx. Specifically mentioned were areas that would mitigate the effect of climate change on lynx habitat, provide habitat for dispersing lynx to colonize (such as portions of New Hampshire, New York, North Dakota, Wyoming, Utah,

Washington, and Oregon), or lynx travel corridors both within the United States and between the United States and Canada.

*Our response:* The PCE and the areas proposed as critical habitat represent the features essential to the conservation of lynx. The Act states at section 3(5)(A), that except in particular circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species. It is not the intent of the Act to designate critical habitat for every population and every documented historical location of a species. As described on page 68299 of the proposed rule (November 9, 2005; 70 FR 68294), the areas proposed as critical habitat serve a variety of functions, including providing habitat that may serve as travel corridors to facilitate dispersal and exploratory movements. At this time the biological or physical features of habitats lynx choose for travel or colonization is not well-understood. The extent that climate change might affect lynx habitat is not known, nor do we know if any areas within the contiguous United States would mitigate for habitat changes due to climate change. Therefore, we did not have sufficient data to accurately delineate areas in the contiguous United States that might provide travel, serve as sites for colonization or corridors, or mitigate for climate change.

19. *Comment:* Many commenters assert that the presence of lynx demonstrates that present and past timber management practices (i.e., those that started around 20 years ago and continue today) have created the current habitat conditions that are good for lynx; therefore, critical habitat should not be designated on such lands.

*Our response:* We agree and for this reason, in addition to others, we have excluded all non-federal lands managed for commercial forestry from the designation (see Exclusions Under Section 4(b)(2) of the Act discussion, below).

20. *Comment:* Washington State Department of Natural Resources requested that their lands be removed from the designation because the agency has implemented a Lynx Habitat Management Plan since 1996 that has been effective in the conservation of lynx habitat and updated the Habitat Management Plan in 2006 to include modifications to avoid the incidental take of lynx.

*Our response:* We determined that Washington State Department of Natural Resources lands should be removed



from the critical habitat because Washington DNR's plan provides sufficient management so that special management or protection is not required and thus the identified lands do not meet the definition of critical habitat. First, the plan is complete: The original plan was completed in 1996, updates and modifications to the plan were completed in 2006. Second, the plan provides specific provisions for lynx foraging (snowshoe hare) habitat and denning habitat on a landscape scale based on the best available science on lynx and snowshoe hare ecology. Third, the plan has been implemented since 1996. The Service found that implementation of the 1996 plan will maintain the function of the landscape and its capability to support lynx reproduction and was not likely to result in mortality or injury to lynx through significant impairment of breeding, feeding or sheltering or other essential behaviors (Martin 2002). Finally, implementation and effectiveness monitoring reports are provided and are incorporated into the 2006 plan. This issue is discussed in more detail in Exclusions Under Section 4(b)(2) of the Act, below.

21. *Comment:* Montana Department of Natural Resources and Conservation requested that Montana State Trust Lands be excluded from designation because of Montana Department of Natural Resources and Conservation's pending Habitat Conservation Plan that will specifically address lynx conservation.

*Our response:* We determined that Montana State Trust Lands should be excluded from the designation of critical habitat because the benefits of excluding these lands covered by the pending HCP outweigh the benefits of including them in the designation (see Exclusions Under Section 4(b)(2) of the Act, below). The Lynx Conservation Strategy portion of the pending HCP has undergone public review pursuant to State law and provides for the PCE in that it will provide multistoried boreal forest stands, foraging habitat (i.e., snowshoe hare habitat), lynx denning habitat, and protection for known den sites.

22. *Comment:* Tribes submitted comments requesting their lands be excluded from the designation. We received other comments opposing the exclusion of tribal lands from the designation.

*Our response:* In accordance with Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997); the President's memorandum of April 29, 1994, "Government-to-Government

Relations with Native American Tribal Governments" (59 FR 22951); Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments;" and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2), we believe that fish, wildlife, and other natural resources on tribal lands are better managed under tribal authorities, policies, and programs than through Federal regulation wherever possible and practicable. Such designation is often viewed by tribes as an unwanted intrusion into tribal self governance, thus compromising the government-to-government relationship essential to achieving our mutual goals of managing for healthy ecosystems upon which the viability of threatened and endangered species populations depend.

We contacted all tribes potentially affected by the proposed designation and met with some of them to discuss their ongoing or future management strategies for lynx. Several tribes subsequently submitted letters requesting exclusion based on their sovereign rights and concerns about the economic impact and affects on their ability to manage natural resources. As described on page 68310 of the proposed rule, we have determined that conservation of lynx can be achieved off tribal lands within the critical habitat units and/or with the cooperation of tribes. The tribal lands included in the proposed designation are found only in the Maine and Minnesota units and the size of the areas are relatively small (approximately 223 and 192 km<sup>2</sup>, respectively [86 and 74 mi<sup>2</sup>]). Therefore, these tribal lands are excluded from final designation as critical habitat pursuant to section 4(b)(2) of the Act (see Exclusions Under Section 4(b)(2) of the Act discussion, below).

23. *Comment:* Some commenters are concerned the designation provides a mechanism for increased third party litigation.

*Our response:* We have designated critical habitat for the lynx based upon the statutory obligations and definitions pursuant to sections 3 and 4 of the Act after taking into consideration the best available scientific and commercial information. Further, we have finalized our designation for lynx critical habitat following an evaluation of all conservation measures and partnerships, economics, and other relevant factors and subsequently weighing the benefits of inclusion against the benefits of exclusion pursuant to section 4(b)(2) of the Act. Thus, we believe that we have proposed and designated critical habitat according

to the provisions of the Act and our implementing regulations. However, the final designation can be subject to litigation and those affected by the designation may also be vulnerable to third-party litigation if determined not to be in compliance with the provisions and protection of the regulation.

24. *Comment:* Some commenters believe that the analysis for justifying removing USFS lands from the designation was inadequate.

*Our response:* We have noted the comment and provide an expanded discussion in Application of Section 3(5)(A) of the Act, below. We have concluded that the conservation agreement, proposed plan amendments, and existing LRMPs that include lynx conservation provide sufficient special management for lynx.

25. *Comment:* Some commenters believe that because USFS lands are being managed for lynx under the Conservation Agreement, the lands require special management and, therefore, should not be removed from the designation under section 3(5)(A). Additionally, commenters suggest that removal of USFS lands from the designation violates *Center for Biological Diversity v. Norton* (2003).

*Our response:* Under the definition of critical habitat, an area must be both essential to a species' conservation and require "special management considerations or protections." Our interpretation is that special management or protections are not required if adequate management or protections are already in place. Adequate special management or protection is provided by a plan or agreement that addresses the maintenance and improvement of the primary constituent element for the species and manages for the long-term conservation of the species (see Application of Section 3(5)(A) of the Act, below). In our final designation, we analyzed whether the lands containing the features essential to the conservation of lynx required special management above and beyond what was currently being implemented. Because the USFS's current lynx management conserves lynx, we did not include any USFS lands in the final designation.

26. *Comment:* Removing Federal lands from the designation unfairly and disproportionately places the burden of lynx conservation on non-federal landowners.

*Our response:* We have excluded all non-federal lands from the final designation for the reasons described below in the Exclusions Under Section 4(b)(2) of the Act discussion, which resolves these concerns.

27. *Comment:* Voluntary, non-regulatory, cooperative conservation strategies would provide more effective lynx conservation than the critical habitat designation.

*Our response:* In general, we agree with this comment. We responded to this comment by weighing the benefits of exclusion against the benefit of inclusion pursuant to 4(b)(2) of the Act. The benefits of non-regulatory conservation on private, state, and county lands were factored into our decision not to include such lands in the final designation. See Exclusions Under Section 4(b)(2) of the Act discussion below for a complete discussion.

28. *Comment:* Designation of critical habitat would be harmful to lynx conservation because the regulation will make current land use (e.g., logging) unprofitable, causing landowners to sell to developers and resulting in a loss of lynx habitat.

*Our response:* Our decision to include only National Park Service lands in the final designation resolves these concerns. No logging occurs within NPS lands. It is relevant to note, however, that our economic analysis did not indicate logging would be made unprofitable by the designation of lynx critical habitat. The cost of the designation on timber lands was relatively small on a per-acre basis. Thus, the exclusion of these areas in the final designation was not due to economic impacts. Please refer to our draft and final economic analyses for further detail concerning our estimate of potential economic impacts resulting from the proposed and this final designation.

29. *Comment:* Lands covered by Plum Creek Timber Company's Native Fish Habitat Conservation Plan should be excluded from the designation because the plan conserves riparian zones that function as snowshoe hare habitat, lynx denning habitat, and lynx travel corridors.

*Our response:* Plum Creek lands are not included in the final designation in part because the company has demonstrated it is a willing partner in fish and wildlife conservation efforts, such as the Native Fish Habitat Conservation Plan, which provides some ancillary benefits to lynx, as described below in the Exclusions Under Section 4(b)(2) of the Act discussion, which resolves this concern. We believe partnerships are essential for the conservation and recovery of lynx.

30. *Comment:* Private lands in Montana covered by the Swan Valley Grizzly Bear Conservation Agreement

should be excluded from the designation.

*Our response:* Private lands in Montana are not included in the final designation for the reasons described below in the Exclusions Under Section 4(b)(2) of the Act discussion, which resolves this concern. We believe that preserving cooperative partnerships such as demonstrated with the Swan Valley Grizzly Bear Agreement, which provides some ancillary benefits to lynx, is essential for the conservation and recovery of lynx.

31. *Comment:* Dense forests required by lynx and snowshoe hares increases the risk of wildfires.

*Our response:* Wildfire is not thought to be a threat to lynx, and often results in beneficial effects when burned areas regenerate into good lynx foraging habitat. The designation of critical habitat will not prohibit protection of defensible space around homes or the wildland-urban interface. As described in the final rule listing the lynx, natural fire plays an important role in creating the mosaic of vegetation patterns, forest stand ages, and structure that provide good lynx and snowshoe hare habitat, particularly in the western Great Lakes region and in the western mountain ranges of the United States (Agee 2000, pp. 47–56). The final designation includes only National Parks. The National Park Service manages wildfire risk in accordance with the National Fire Plan. We routinely coordinate with NPS on fire projects that may affect listed species pursuant to section 7 of the Act. Typically, NPS fire management projects do not result in adverse effects to lynx. We anticipate that future projects are unlikely to adversely modify its critical habitat.

32. *Comment:* Some commenters questioned the adequacy of the Environmental Assessment (EA) and other aspects of our compliance with NEPA. They believe the Service should prepare an Environmental Impact Statement (EIS) on this action.

*Our Response:* An EIS is required only in instances where a proposed Federal action is expected to have a significant impact on the human environment. In order to determine whether designation of critical habitat would have such an effect, we prepared an EA of the effects of the proposed designation. We published a Notice of the Availability of the draft EA for public comment on September 11, 2006 (71 FR 53355). Following consideration of public comments, we prepared a final EA and determined that critical habitat designation does not constitute a major Federal action having a significant impact on the human environment. That

determination is documented in our Finding of No Significant Impact (FONSI). Both the final EA and FONSI are available on our Web site (see ADDRESSES section).

33. *Comment:* Commenters believe that designating State School Trust lands as critical habitat will harm schools and school children because the lands will not be able to be used to fund the School Trust.

*Our response:* We have excluded all State lands from the final critical habitat designation for the reasons described below in the Exclusions Under Section 4(b)(2) of the Act discussion, which resolves this concern.

34. *Comment:* Some commenters were concerned that the Maine Forest Practices Act (MFPA), which regulates forestry in Maine, is not adequate to provide for the habitat requirements of lynx and, therefore, compliance with the Act should not be a basis for excluding lands from the critical habitat designation.

*Our response:* We have previously recognized that the shift away from clear-cutting towards partial cutting in Maine creates uncertainty as to the long-range suitability of habitat for lynx. This shift is in large part a result of implementation of the Maine Forest Practices Act (MFPA) starting in 1989 when it was enacted. In our 2003 Remanded Determination regarding the listing of the lynx as a threatened species, we noted that “if harvest practices cease to provide early successional forest with dense understories or stand-replacing disturbances (such as provided by a large clear-cut) in proportions similar to historic conditions, habitat conditions for snow shoe hares and lynx will be diminished.” 68 FR 40076, 40094 (July 3, 2003) (emphasis added). In that notice, we also stated that “at this time, we do not know if future timber harvest practices will continue to provide forest conditions that are capable of supporting snowshoe hare densities that can, in turn, support a resident lynx population.” Id. Our 2005 Lynx Recovery Outline also acknowledges this uncertainty: “harvest management in Maine has shifted away from clear-cutting and now favors partial cutting, which in some situations, may result in less favorable conditions for snowshoe hare and lynx.” Recovery Outline, p.9 (emphasis added).

We agree that this uncertainty remains. As we have previously noted, lynx preference for regenerating clear-cuts has been well-documented by analyses at landscape- and stand-level scales (Hoving et al. 2004, pp. 291–292; Fuller 2006, p. 31; Robinson 2006, pp.

119–129). Maine lynx habitat models document that lynx avoid partial harvest stands (Hoving et al. 2004, p. 292) or that partial harvested areas are not statistically associated with lynx occurrence at home range and landscape scales (Robinson 2006, pp.122–123). Furthermore, partial harvest stands support substantially lower snowshoe hare densities than regenerating clearcuts (Robinson 2006, p. 9), with many stands below a threshold of 1.1 hares/ha believed necessary to support a lynx population (Steury and Murray 2004, p. 137). But, at least one Maine study suggests that, under certain circumstances, lynx may prefer partially-harvested stands (Fuller 2006, p. 31). We recognize that this study, as with most, has certain limitations, but it does represent a somewhat different conclusion than previous studies about the suitability for lynx of various habitats created through forest management in Maine.

But, long-range habitat suitability in Maine also depends on the distribution, amount, and longevity of habitats created through forest management. Thus another critical question is whether the mosaic created by clear-cutting, which is anticipated to last another 10–15 years, may be replaced over time by across the landscape by other practices.

Neither the MFPA nor its regulations provide prescriptions for age class, distribution of forest, or coarse woody debris. It is important to note that although the MFPA regulates clear-cutting it does not eliminate this practice altogether as some have suggested in their comments. The MFPA allows for the possibility of large clear-cuts (up to 400 acres) so long as such harvesting is accompanied by proper documentation and permits. In 1989, clear-cuts accounted for 45% of the land area harvested and partial harvests 55% (Maine Forest Service 1995, summary statistics). In 1999, clear-cuts accounted for only 3%, whereas partial harvests accounted for 96% (Maine Forest Service 2000, summary statistics). This new silvicultural paradigm has landscape level implications for lynx because larger areas must be logged to supply mills with an equivalent volume of wood. The annual number of acres that is partially harvested has increased 21% from 398,743 acres in 1993 to 481,153 acres in 2004 (Maine Forest Service 2005, summary statistics). As currently implemented, MFPA is adequately providing for the habitat requirements of lynx.

Partnerships will be essential in resolving both these scientific as well as management uncertainties, especially

given that the majority of lynx habitat and occurrences occur on private lands managed for commercial forestry in Maine. Agreements and commitments with private landowners to allow access to lands, provide research capabilities and funding, map habitat and correlate it to past and existing forest management practices is necessary to address and reconcile uncertainties about which type and distribution of habitats lynx prefer. Because the amount and quality lynx habitat may ultimately depend on the types and locations of harvesting that are pursued under the MFPA, maintaining working relationships with the commercial timber industry is important, this is especially so because commercial timber operations in Maine typically do not involve Federal actions that would trigger consultation under Section 7 of the Act.

35. *Comment:* Some commenters are concerned that certification programs and voluntary agreements were not working well on corporate forestlands in Maine and Montana and, therefore, should not be a basis for excluding such lands from the final critical habitat designation. Specific information was provided about Maine Department of Inland Fisheries and Wildlife's (MDIFW) concern about Plum Creek's reluctance to abide by voluntary, cooperative deer wintering area agreements that were negotiated with the previous owner. Commenters asserted that Plum Creek's land management in Montana includes activities that may threaten lynx, such as precommercial thinning that decreases the quality of snowshoe hare habitat; and divesting of its land holdings, which may then be developed.

*Our response:* Several corporate forest landowners in Maine, including Plum Creek, have voluntary agreements with MDIFW to manage deer wintering habitat. These agreements enable the state to work in partnership with forest industry to manage for deer wintering habitat. Given the significant turnover in corporate forest land ownership in Maine in the last 15 years, agreements with previous companies need to be renegotiated with the new owners. New landowners sometimes do not honor the agreements made by previous landowners and cut in deer wintering areas. Deer wintering areas are large areas of mature softwood, usually in riparian areas. Although these are boreal habitats, they generally do not provide quality habitat for snowshoe hares or lynx. Lynx in Maine prefer young, regenerating softwood stands. Cutting deer wintering habitat may have created lynx habitat.

The lynx forest management strategy offered by the Maine Forest Products Council applies to about 400 member landowners that comprise about 84% of the proposed Maine Unit of the critical habitat. The lynx management specified in the strategy applies to current and future landowners. Thus, as landowners change, there is a good probability that the lynx strategy will apply to future corporate forestry landowners.

Section 7 of the Act only applies to activities on private lands where there is a Federal action that triggers consultation; critical habitat designation would not provide any additional protections under the Act to address activities on private lands that do not involve a Federal action. We weighed the benefits of exclusion against the benefit of inclusion pursuant to section 4(b)(2) of the Act. The benefits of preserving effective partnerships with private landowners and encouraging non-regulatory conservation on private lands managed for commercial forestry factored into our decision to exclude such lands. Specifically, Plum Creek has demonstrated it is a willing and effective partner in various fish and wildlife conservation efforts; it contributes funding for lynx research and allows research to occur on its properties, as well as managing habitat that supports lynx and other species, both protected and unprotected. See Exclusions Under Section 4(b)(2) of the Act discussion below for a complete discussion of specific exclusions.

#### Comments on Economic Issues

##### *General Comments on Methodology and Scope*

1. *Comment:* Cook County commented that the draft economic analysis (DEA) does not include a breakdown of economic impacts by county. Similarly, Lutsen-Tolfte Tourism Association and Lutsen Mountains Ski resort suggested that the Service should separately analyze the developed portion of Cook County in Northeastern Minnesota, as it comprises the majority of the existing development and industry in the County.

*Our response:* As described in Section 2.1, an economic analysis of this type must make a determination of the geographic level at which to present results. In this case, the DEA provides economic impacts at the subunit level, which is defined by landowner type (e.g., private timberlands, State lands, etc.). Landowner type was selected as the geographic scale of the analysis, as impacts across land use types were expected to be more homogenous than across political boundaries, such as

cities or counties. Impacts of lynx conservation on Cook County lands are, therefore, summarized according to the subunits that intersect Cook County in Unit 2. These are the Superior National Forest, Unknown Private Landowner, MN Department of Natural Resources, Private Mining Company Lands, and Tribal Lands subunits.

2. *Comment:* One comment stated that the DEA refers to a "one mile buffer along the coast of Lake Superior" as being excluded from the economic analysis. The commenter requests clarification regarding the actual delineation of critical habitat as Section 4(b)(2) of the Act requires economic analysis of areas proposed to be included in the designation, and thus including the 1-mile buffer as critical habitat without analyzing the economic data would be a violation of the Act.

*Our response:* The DEA does not refer to the 1-mile buffer surrounding Lake Superior as being excluded from the economic analysis. These areas were explicitly considered in the DEA as described in Section 4.3.2.

3. *Comment:* One commenter stated that the DEA should include the direct cost to the private sector and Federal agencies of dealing with critical habitat through interactions with Federal agencies regarding permits or sales. This commenter also stated that the DEA should consider the indirect costs of dealing with project delays and the legal costs associated with critical habitat designation that accrue to both the public and private sector.

*Our response:* Appendix A of the DEA quantifies the administrative costs to public and private entities of section 7 consultations, a direct impact of critical habitat designation. These impacts of complying with section 7 of the Act are included in the total economic impact estimates provided in the DEA. The DEA also considers the impact of project delays. For example, the analysis quantifies construction of new roads to access timber or mining projects to avoid delays associated with lynx conservation concerns.

4. *Comment:* One comment highlighted that the DEA does not quantify impacts to mines, development, and grazing in the area. Another comment questioned why the DEA presents the full value estimates for development and mining.

*Our response:* Since the publication of the DEA, a supplemental analysis of impacts to development was undertaken and will be incorporated in the Final Economic Analysis (Final EA). As described in Section 6.5 of the DEA, absent information regarding how or whether grazing activities may be

impacted by lynx conservation, the DEA provides information on the geographic areas grazed and the full value of the grazing within the study area. While not an impact estimate, this information is useful for decision making by identifying the distribution of grazing activity across the study area. Section 8 of the economic analysis does quantify impacts to mining activities.

5. *Comment:* Plum Creek Timber Company, Inc. commented that the DEA does not consider that an acre of land may have both timber and potentially substantial future additional value, and thus the DEA underestimates the potential value at risk associated with critical habitat designation. The comment further stated that all of Plum Creek's lands have some future value (including recreation, conservation, and higher and better uses) in addition to current use values, regardless of Plum Creek's ultimate use of the land. The assumption that an acre of land is primarily used for one use (rendering the value of secondary uses negligible), therefore, underestimates the total acreage at risk of losing value.

*Our response:* The DEA does not assume that the primary land use of an acre is its only value, or that other components of the total value are negligible. Rather, the DEA recognizes that the value of an acre encompasses the value of all of its foreseeable future uses. The DEA uses existing zoning and land use information to identify acres that are expected to have a value associated with the option for future development. For land parcels for which the only foreseeable future use is timber (based on available data), however, the potential of that parcel to be developed is unknown within the timeframe of the analysis, and, therefore, the parcel does not have an estimated development option value in the DEA. This characterizes the majority of the Plum Creek lands in both Maine and Montana. Communication with land value appraisers in Montana confirmed that the appraised value of parcels for which timber management is the only current and known future use do not include a measurable value associated with the option for future development. To the extent that these lands may be developed in the future absent lynx conservation, the DEA underestimates impacts related to development on these parcels.

6. *Comment:* Defenders of Wildlife commented that the DEA omits assessment of benefits from increased direct uses including welfare gains for participants in non-motorized recreation activities that benefit from restrictions on snowmobiling, or avoided loss of

scenic beauty for recreationists due to prevented destruction of habitat for development.

*Our response:* As discussed in Section 1.2.4 of the DEA, these types of benefits are considered in the analysis. However, similar to the calculation of benefits related to viewing lynx, information regarding the number of non-snowmobilers recreating in the area is not readily available, and the extent to which lynx-related restrictions increases enjoyment of non-motorized recreation due to reduced noise pollution, or increases the scenic beauty of the study area, is unknown.

7. *Comment:* Defenders of Wildlife stated that the DEA violates its own study parameters in order to incorporate project costs that occur beyond the 20-year timeframe of the analysis. In particular, the commenter notes that pre-commercial thinning impacts would change from a net cost to a net benefit if the DEA respected its own temporal boundaries of analysis.

*Our response:* As stated in Section 1.3, the DEA forecasts impacts to activities that are considered "reasonably foreseeable." Where information is available to reliably forecast economic activity beyond the 20-year timeframe, this analysis incorporates that information. For timber management, silvicultural planning typically occurs over a long time horizon (e.g., 100 years). The DEA, therefore, forecasts impacts to activities in the timber industry accordingly. Reporting only the first 20 years of impacts of restrictions on precommercial thinning would result in the reporting of a net benefit of these restrictions, as the costs of these restrictions are experienced at the time of harvest (e.g., reduced yield). Reporting a net benefit or precluding precommercial thinning from the analysis would be misleading, however, as precommercial thinning would not likely be undertaken if it did not offer a long-term benefit to landowners.

8. *Comment:* Pingree Associates, Inc., commented that the DEA was prepared based on substandard information with no peer review and that there was no adherence to any appraisal standards in determining values of forestlands.

*Our response:* The DEA applies the best available information, and was peer-reviewed by forest economists from both Maine and Montana. As described in Section 4 and Appendix D, the land appraisal information applied in the DEA is from recent appraisals by the Maine Revenue Service. This information is used by the Land Use Regulatory Commission in Maine, and was cross-checked with a number of

stakeholders, including the University of Maine and the Maine Department of Inland Fisheries and Wildlife.

#### *Comments on Timber Analysis*

9. *Comment:* A comment provided by Maine Audubon asserted that the DEA overestimates the number of acres likely to be precommercially thinned. The DEA estimates that over a 100-year period, 6.1 million acres will be precommercially thinned; Maine Audubon estimates that this should be closer to 2.1 million acres. The comment further states that timber impacts in Maine should be estimated over a 30-year projection, rather than 100 years due to the short tenure of most timberland ownerships.

*Our response:* The DEA applied the best available information regarding the potential impact of precluding precommercial thinning in Maine. The estimates are based on previously conducted modeling by the University of Maine Cooperative Forestry Research Unit as described in Section 3 and Appendix D. Results applied in the DEA from the existing model are estimated benefits of precommercial thinning on a per-acre basis for the entire State of Maine over a 100-year timeframe, based on the recent, observed level of precommercial thinning. The application of this model to the DEA was reviewed and considered reasonable by multiple stakeholders and peer reviewers. Further, the tenure of a landowner is not relevant to the timeframe of the analysis, as the impacts estimated are not specific to current landowners, but to land parcels.

10. *Comment:* The Montana Wood Products Association commented that the assumption in the DEA that there is no market for precommercially thinned material is incorrect. In Montana existing facilities that function on residuals from timber harvesting would be impacted by restrictions on precommercial thinning. This comment further stated that the assumption that future stumpage prices will be comparable to past prices is unfounded.

*Our response:* As described in Section 3.2 of the DEA, Scenario 2 of timber analysis assumes that no ready market exists for slash from precommercial thinning. To the extent that a market for this residual does exist within the study area, the DEA acknowledges in Exhibit 3-7 and on page 3-9 that timber impacts could be underestimated. An increase in biomass energy production would create demand and provide a market for residuals from precommercial thinning. This comment suggests that the market for residuals from precommercial thinning exists in certain areas of the

proposed critical habitat. As timber harvests would not be precluded under any of the scenarios considered in the DEA, it is unlikely that this market would be completely eliminated, however, as there would still be residual material from harvests available for these facilities.

11. *Comment:* One comment highlighted that Exhibit 3-7 of the DEA states that differences in quality between thinned and unthinned stands are not taken into consideration, and noted that precommercial thinning would not be undertaken if it had no purpose.

*Our response:* Following discussions with a variety of timberland stakeholders, the DEA timber analysis focused on the benefits in quantity and timing of the harvest resulting from precommercial thinning rather than the potential increases in quality of the wood harvested. Benefits related to an increased quality are highly dependent on the initial quality of the stand, which was unknown across the study area. To the extent that restricting precommercial thinning leads to decreased quality of wood harvested from a stand, the analysis may underestimate impacts, as noted in Exhibit 3-7.

12. *Comment:* One commenter noted that the impacts cited in the Section 3 did not match those in the Executive Summary, and were significantly higher.

*Our response:* The figure of \$808 million referred to in the Key Findings for the Timber analysis in page ES-3 of the DEA was a rounding error and has been corrected to show \$809 million. Other timber analysis results cited in the Executive Summary are correct and match those in Section 3.

13. *Comment:* Maine Forest Products Council asserted that the full value of timberland estimated for Maine was understated because the \$300/per acre value applied did not account for the entire "timber capital value." The commenter stated that many timberland transactions have occurred that have exceeded those values.

*Our response:* As described in Appendix D of the DEA, the average per-acre timber value of \$300 applied in the DEA for Maine represents the value of land as a silvicultural input, which generally reflects the present value of the standing timber. This estimate is based on information regarding appraised value of lands where timber is the only use. This value represented an average value, thus, it is likely that there have been transactions exceeding this value. The \$300-per-acre average

value was confirmed with a number of stakeholders and peer reviewers.

14. *Comment:* One commenter expressed concern that the DEA does not consider the broader economic impacts that stem from the effect critical habitat designation could have on the overall strength of the forest products industry in Maine and its global competitiveness.

*Our response:* The DEA provides information on the full value of the timberland within the study area, as well as information regarding the potential impacts to the timber industry under two scenarios, one with restrictions on precommercial thinning, and one without. As described in Section 3.2 of the DEA, under Scenario 1, no impacts to the quantity of timber harvested on private lands is forecast, while under Scenario 2, impacts to timber harvest quantity are forecast in the future as a result of restrictions on precommercial thinning practices. The full value of the timberland in Maine is presented along with the impact of lynx conservation on the timber resource to provide context to the impact estimate, and its relative effect on the regional timber industry.

15. *Comment:* The Maine Forest Products Council commented that the DEA does not address the impact of the designation on spruce plantations. Additionally, the commenter is concerned that the report does not address the potential for a future spruce budworm outbreak and the impact the designation could have on the ability of the State and its timberland owners to deal with the next outbreak.

*Our response:* The analysis of impacts to the timber industry did not focus on impacts to plantations as this was not the focus of the timber-related conservation guidelines described in the LCAS. As discussed in Section 1.4 of the DEA, the LCAS is considered by the Service to be the best information available regarding conservation measures for the lynx. The DEA assumes that, absent more specific information, public and private landowners across the proposed critical habitat will use the LCAS as a model for lynx conservation needs. To the extent that limiting precommercial thinning can multiply the impact of an upcoming spruce-budworm epidemic, the analysis may have underestimated impacts to the timber industry. No models are available, however, to link restrictions on precommercial thinning with increased probability or severity of spruce budworm outbreaks.

16. *Comment:* One comment stated that the DEA does not address the impact of changes in wood supply

within the study area on industry located outside the study area.

*Our response:* Scenario 2 of the timber analysis in the DEA quantifies impacts to future timber harvest resulting from a restriction on precommercial thinning practices. The DEA does not make any assumptions about where the harvested timber is delivered, within or outside of the proposed critical habitat, but instead focuses on the estimated decreased value of a timber stand to the landowner as a result of restrictions on precommercial thinning. Any impacts to mills associated with a decreased supply of timber as a result of precommercial thinning restrictions would occur at the time of harvest, which may be 60 to 100 years (depending on harvest rotation schedules) from the time the restrictions on thinning are implemented. Further, while Section D.1.2 of the DEA states that the best available information indicates that approximately 1 percent of the timber lands are precommercially thinned per year, information is not readily available describing which particular parcels would be thinned in a given year, or which specific mills (within or outside of the study area) rely on those particular stands.

17. *Comment:* Comments from Pingree Associates, Inc., and the American Forest and Paper Association (AFPA) stated that limiting the discussion on forest management impacts to precommercial thinning restrictions is inadequate and misleading. Pingree Associates asserted that, from past experience with critical habitats for other species, a high probability exists that designation of critical habitat will require additional set-asides and lead to restrictions on commercial thinning and harvesting. AFPA cited the Washington State Department of Natural Resources standards, which they believe, if applied across the critical habitat, would result in a greatly increased calculation of economic impact.

*Our response:* The DEA applies information from the LCAS regarding the types of habitat-related conservation measures that may be requested to benefit the lynx. Information in the LCAS and from review of past consultations does not indicate that additional set-asides or restrictions on commercial thinning will be recommended for the benefit of the lynx. While the WADNR standards are similar to the LCAS, the LCAS has been applied to a broader geographic area.

18. *Comment:* The American Forest and Paper Association (AFPA) argues that using full value of timberlands shown in Exhibit 3-2 in the DEA would

provide a more appropriate 'high impact' benchmark for measuring and weighing the benefits and economic impacts of the critical habitat designation.

*Our response:* The DEA does not consider the full values of designated timberland to be a valid estimate of impacts of lynx habitat-related conservation, as there is no basis to assume this full value could be lost due to the proposed critical habitat. Rather, the DEA is based on information contained in the LCAS about how timber activities would be expected to change under the proposed critical habitat designation as described in Section 3.2.

19. *Comment:* The Montana Wood Products Association stated the assumption that future stumpage prices will be comparable to past prices is unfounded. Similarly, the American Forest and Paper Association stated that rising stumpage prices resulting from restrictions in timber management may also place in jeopardy portions of the pulp and paper industry or solid wood products industry in the affected States.

*Our response:* As stated in Exhibit 3-7, the DEA made the simplifying assumption that future stumpage prices would be similar to past stumpage prices. Specifically, the analysis utilized the most recent information available (from 2005) for stumpage prices for Minnesota and Montana, and relied on analyses provided by the University of Maine, Idaho Department of Lands, and Washington State Department of Natural Resources for impacts in those areas. This assumption and impact analysis method was peer reviewed by forest economists in both Maine and Montana.

20. *Comment:* F.H. Stoltze Land and Lumber Company commented that it is a small family-owned business that is directly affected by the critical habitat through purchase of USFS sales, Special Use Permits for access and radio towers, contract road maintenance, and participation in stewardship contracts, and that none of these issues are considered in the DEA. The commenter further stated that the estimated \$652 per acre of timberland in Western Montana is not the appropriate market value and that the DEA underestimates that value of thinning and returns to forest landowners. F.H. Stoltze Land and Lumber Company also commented that the DEA does not reflect the use of fertilization, which is also used on Stoltze lands. The commenter further states that studies have shown they can achieve a 50 to 60 percent increase in growth rates by using the 20-foot spacing and fertilization and that these

lost revenues and costs should be considered in the economic analysis.

*Our response:* Impacts related to special use permits and road maintenance on Federal lands were considered in Section 3 of the DEA. The estimated per-acre value is an average; thus, it is not surprising that some sales of specific lands will be well above this average due to factors such as location, access and quality. Also, as discussed in Section 1.4 of the DEA, the DEA assumes that the LCAS is the best information available regarding conservation measures for the lynx and the LCAS does not suggest any habitat-related conservation measures related to the use of fertilizers; thus no impacts to fertilization activities are expected. Stoltze lands are excluded from critical habitat in the final designation for biological reasons.

#### *Comments on Development Analysis*

21. *Comment:* One commenter stated that because the DEA relies on existing zoning status, it underestimates the amount of land in Maine that may be subject to development as future changes in zoning may occur.

*Our response:* Section 4.2 of the DEA highlights that, while the analysis does not account for potential changes in future zoning across the study area, the relatively rural character of the area does not suggest that significant levels of re-zoning will be necessary to accommodate the existing development pressure. To the extent that development pressure increases in this region and rezoning occurs, however, the DEA will underestimate the number of developable acres in the study area in Maine.

22. *Comment:* Maine Audubon commented that the DEA calculates revenues likely to be lost if no development is allowed on lands currently zoned for development in Maine. The comment argued that this assumes that there is no silvicultural value of those lands, and that no development will be allowed under the designation, and these are unlikely assumptions.

*Our response:* The DEA does not calculate lost revenues as a result of restrictions on development, but rather reduced value of land as a result of precluding the option to develop. Further, the DEA does assume that silviculture is a potential use of these lands and, therefore, if development is precluded, the land retains its silvicultural value. While the DEA provides information on the full value of the option to develop the study area, it does so due to lack of information regarding how development projects

may be modified for the benefit of the lynx as described in Section 4.2 and does not assume that all development within the study area will be precluded as a result of lynx conservation.

23. *Comment:* A comment from Cook County, Minnesota, noted that, although the DEA provides information on the full value of developable land in Unit 2 (\$1.56 billion), the total economic impacts of lynx conservation provided is an underestimate of costs because impacts to the developable lands are not assessed and added.

*Our response:* The comment correctly highlights that the DEA did not quantify impacts to potential development activities, but rather provides the full option value of future development within the study area. Since the publication of the DEA, a supplemental analysis of impacts to development was completed by the economists, and will be incorporated in the Final Economic Analysis (Final EA). The supplemental development analysis estimated impacts to development in Unit 2 to be \$658 million to \$709 million.

24. *Comment:* Plum Creek Timber Company, Inc., commented that the DEA should consider conservation easement values as a proxy for future development value, as development value of timber acres is overlooked in the DEA. Maine Forest Products Council commented that the analysis of development in Maine does not look at any development proposals, empirical market information, analysis of comparable market sales, or appraisal information, and it posits no build-out scenarios. This commenter also expressed concern that there is no consideration of development value on backland, which they suggest could be based on available information from the sale of conservation easements. The commenter provides information on two conservation easement sales and applies these per-acre values to estimate potential development value of some lands in the study area in Maine.

*Our response:* The values of conservation easements can serve as a proxy for the value of a parcel for development. Research was undertaken in the development of the DEA on per-acre values of conservation easements in the study area. In order to transfer the value of development from a conservation easement to other parcels, however, information is needed on the relationship between land attributes, such as distance from existing development and roads, proximity to water bodies, etc., and the easement values. Without information on the attributes of specific parcels that may be developed, values of conservation

easements could not be transferred from easement lands to the specific parcels as a proxy of their development value.

25. *Comment:* A comment provided by Cook County, Minnesota, states that the DEA underestimates the amount of developable land in Cook County.

*Our response:* As highlighted in this comment, approximately 91 percent of the lands in Cook County are public forest lands; the private lands in the County are primarily inholdings within these public forests. Where information was available to identify the private inholdings among the public lands, those private lands were considered developable. For example, 291 acres in the southwestern corner of Cook County were identified as privately owned, and considered developable in the DEA. Best available data regarding landownership within Unit 2, however, is imperfect and may not identify all of the private inholdings within the forests, in which case impacts may be underestimated.

26. *Comment:* A comment provided by Lutsen Mountains Ski Area asserted that the DEA should consider "other relevant impacts" of the designation, including any resulting increased local standards on land use decisions, such as zoning and issuance of building permits. This may require hiring of experts, analysis, and public hearings before the planning commission and county board.

*Our response:* The area of Cook County, Minnesota, to which this comment refers is a developed area, containing recreational, commercial, and residential infrastructure. Existing development and infrastructure is excluded from critical habitat in the proposed rule. The analysis, therefore, does not quantify impacts associated with increased standards on local land use regulation associated with lynx conservation.

27. *Comment:* A comment from F.H. Stoltze Land and Lumber Company asserted that the use of \$932 per acre as the value for development in Montana is too low.

*Our response:* As described in Section 4.3.3, the DEA did not apply an average per-acre value for developable lands in Montana but instead applied parcel-specific appraisal data from the Montana Department of Administration, Information Technology Services. The average per-acre value is presented for context, although the specific values of parcels ranged across the region.

#### *Comments on the Recreation Analysis*

28. *Comment:* Two comments asserted that the DEA should consider the benefit to the economy of wildlife

watching, including having lynx available to watch. One commenter highlights the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation estimates that 778,000 people participated in wildlife-watching in Maine in 2001, spending an average of \$445 per participant.

*Our response:* Section 1.2.4 of the DEA acknowledges the potential for benefits to the wildlife-viewing community of lynx conservation efforts. Three pieces of information would be required to estimate economic benefits derived from lynx-viewing: (1) The number of visitors that may engage in lynx-viewing (the National Survey evidences the importance of wildlife-viewing for all species in the entire State, not that specifically related to lynx or within the lynx habitat area); (2) the extent to which the likelihood of viewing lynx may be increased due to the lynx conservation efforts described in this analysis; and (3) the incremental value of a wildlife-viewing trip associated with lynx sightings. These data are not available. To the extent that the conservation efforts quantified in the DEA increase the likelihood of a lynx sighting, and wildlife-viewing participants positively value that opportunity, impacts in the DEA may be overestimated.

29. *Comment:* A comment from Lutsen Mountains Ski Area stated that, while the DEA considers impacts associated with increased congestion on snowmobiling trails and costs of hunter and trapper education, it does not consider recreation activities occurring in Cook County, including alpine skiing, golfing, hiking, cross country skiing, and mountain biking.

*Our response:* The DEA considers activities that represent a conservation threat to the lynx, and how they may be affected by lynx conservation. As described in Section 4.2 of the DEA, existing infrastructure related to recreation, such as ski resorts or golf courses, are not considered critical habitat as described in the proposed rule and, therefore, are not expected to be impacted by lynx conservation as they do not support the lynx (70 FR 68304-5). The DEA looks at expansions of existing recreation areas and developments of new trails that may impact the proposed critical habitat for the lynx. Accordingly, the DEA quantifies impacts in Cook County associated with precluding the development of new trails, which may be used, for example, for snowmobiling.

30. *Comment:* Maine Audubon and Defenders of Wildlife commented that the recreation analysis in the DEA should not include the costs of hunter

and trapper education programs as these programs are required regardless of critical habitat designation because the lynx is a threatened species.

*Our response:* As described in Section 1.2 of the DEA, due to the difficulty in making a credible distinction between listing and critical habitat effects within critical habitat boundaries, this analysis considers all future conservation-related impacts to be co-extensive with the designation.

31. *Comment:* One comment provided on the DEA states that roadless areas of the National Forest System are the best hunting areas, and the DEA should therefore consider that the enhancement and maintenance of fish and wildlife species as a result of designating critical habitat will also enhance hunting and tourism sectors of local economies.

*Our response:* While maintenance and enhancement of hunting areas provides a benefit to hunters, and potentially tourism, within the region, the extent to which the conservation efforts quantified in the DEA contribute to the improved quantity (area) and/or quality (e.g., game density) of the forests for hunting is unknown. In the case that restrictions on development within the habitat area increase the total amount of land available for hunting in the future, information is required regarding whether additional hunters would use the region, or whether density of hunters across the region would decrease, to provide an associated welfare benefit.

32. *Comment:* The Maine Forest Products Council asserted that the analysis should weigh the impact of fewer snowmobilers recreating in Maine with the demand for purchasing lands in the study area, including impacts on forestland value, lease-lot values, conservation easement values, and backland camplot values.

*Our response:* This comment asserts that demand for purchasing lands in the study area will decrease as a result of decreases in the number of snowmobilers recreating in the region. As described in Section 5.2, the DEA assumes there will be no decrease in the number of snowmobilers recreating in the study area in Maine. Rather, the DEA assumes that the same number of snowmobilers will be recreating on fewer trails in the future, as it assumes snowmobilers will not be deterred by the increased densities projected. Therefore, the DEA does not estimate a decreased demand on land purchases.

33. *Comment:* The Northwest Environmental Defense Center commented that the analysis of impacts to the snowmobiling industry is flawed. The DEA uses the results of a study of

the impacts of increased crowding of snowmobilers at Yellowstone National Park. The Northwest Environmental Defense Center asserts that Yellowstone National Park is significantly more crowded than the areas in question in the DEA.

*Our response:* Appendix E of the DEA discusses the limitations associated with applying the results of the Yellowstone study to the impacts to snowmobilers in the DEA, and acknowledges the comment raised above. However, this study represents the best available information regarding the impacts of increased crowding of snowmobilers. The commenter states that the baseline density of snowmobilers in Yellowstone is higher than that in the study area. For this reason, Scenario 1 of the recreation impact analysis assumes that snowmobilers do not experience a reduced value for snowmobiling trips as described in Section 5.2 of the DEA.

34. *Comment:* A comment provided by the Washington State Snowmobile Association asserted that the DEA failed to consider impacts to the regional economy in Washington of curtailing snowmobiling. It further states that, although there are only 29 miles of affected snowmobile trails in Washington, those trails provide access to over 429 miles of trails outside of the proposed habitat area. Similarly, F.H. Stoltze Land and Lumber Company commented that the DEA fails to consider impacts to local guides that charge for OHV use.

*Our response:* As described in Section 5 of the DEA, Scenario 2 of the recreation analysis quantifies the impacts of increased congestion on snowmobile trails as a result of restrictions on creating new trails. Because the analysis quantifies impacts of increased congestion as opposed to reduced participation, no impacts to regional businesses benefiting from participation in snowmobiling are expected. Regarding the access issue, the DEA does not assume that existing trails will be decommissioned, as this is not described in the LCAS or in the past consultation history as a habitat-related conservation measure for the lynx. Accordingly, there is no economic impact forecast associated with accessing trails outside of the study area from existing trails within the study area.

35. *Comment:* The Cook County ATV Club commented that the DEA should have considered impacts to ATV use in addition to other types of recreation, such as snowmobiling.

*Our response:* The DEA applies habitat-related conservation measures

from the LCAS and consultation history to determine how land use activities may be impacted by lynx conservation. Neither the LCAS nor the consultation history cite ATV use specifically as a conservation threat to the lynx or suggest that this activity may be impacted by lynx conservation.

#### *Comments on the Public Lands and Conservation Lands Management Analysis*

36. *Comment:* Maine Audubon commented that the DEA estimate to prepare a habitat management plan of \$5.73 per acre overestimates the true costs. The comment argued that the costs would be closer to a range of \$1 to \$3 per acre.

*Our response:* The average per-acre cost estimate to prepare a lynx habitat management plan is a weighted average of all known lynx management plans in the region. Some of these plans cost on the order of \$1 to \$3 per acre, and others were significantly greater, as described in Exhibit 6–4.

37. *Comment:* The Washington Cattlemen's Association commented that the DEA downplays the impact of lynx conservation on grazing in Washington by comparing the impacts to the grazing activities in Okanogan County to the entire Washington State livestock industry.

*Our response:* Section 6.5 of the DEA quantifies the value of grazing in the study area. The DEA recognizes that impacts to rural communities may be significant even when small compared to the statewide industry. The value of the grazing resource in Washington State was presented alongside the value of grazing in the critical habitat area in order to provide additional information on the impacts of critical habitat to the statewide economy. The final rule has excluded areas that are currently grazed, and, therefore, there will be no grazing impact as a result of this rule.

38. *Comment:* F.H. Stoltze Land and Lumber, Co. commented that page 6–18 of the DEA highlights that fencing to limit livestock grazing is a conservation measure related to the lynx, but does not quantify impacts of this effort.

*Our response:* As noted in Section 6.5 of the DEA, fencing of foraging areas specifically for lynx and snowshoe hare is a habitat-related conservation effort for the lynx. The DEA further states, however, that while information is available regarding the level of grazing activity in the habitat area overall, the extent to which grazing occurs specifically within foraging habitat is unknown. The amount and location of fencing that may be requested for the benefit of the lynx is, therefore,



uncertain. The DEA thus presents the full value of the grazing resource within the potential critical habitat area as a resource at risk of being impacted by lynx conservation within the study area.

39. *Comment:* The Okanogan County Farm Bureau commented that fires burn thousands of acres of lynx habitat in the North Cascades, and broad designation of critical habitat will severely restrict the thinning necessary to prevent fire losses that threaten homes and lives. F.H. Stoltze Land and Lumber Company also commented that management of fires has been important in Western Montana.

*Our response:* The DEA relies on the conservation measures outlined in the LCAS to determine how land use activities may be affected by lynx conservation. As described in Section 6.6. of the DEA, the LCAS does not recommend precluding burn management as a lynx conservation measure, but suggests that lynx conservation be taken into consideration in planning burn management, for example, by promoting response by shrub and tree species favored by the snowshoe hare or other prey species, avoiding construction of permanent firebreaks, and minimizing temporary construction of roads.

#### *Comments on the Transportation Analysis*

40. *Comment:* One commenter was concerned about the impact the designation could have on the ability to maintain and improve Route 11 in Maine; in particular, the commenter was concerned about impacts on the ability of the sawmills in Portage and Ashland to get wood.

*Our response:* We have excluded all lands in Maine from this final designation of critical habitat for the lynx pursuant to section 4(b)(2) of the Act; thus, this concern about impacting Route 11 maintenance is no longer an issue.

#### *Comments on the Mining Analysis*

41. *Comment:* The Northwest Mining Association commented that the DEA did not consider impacts to three mines in Western Montana (Troy, Rock Creek, and Montanore), Formation Capital's cobalt project near Salmon, ID, or Kinross Gold's Buckhorn project in Okanogan County, WA.

*Our response:* As described in Section 2.1, the geographic scope of the DEA is limited to those areas proposed for designation and those areas considered for exclusion from critical habitat in the proposed rule; these lands are referred to as the "study area" of the DEA. None

of the mines referenced in this comment are within the study area.

42. *Comment:* The Northwest Mining Association stated that the economic analysis should have analyzed the impact of the loss of mining activity on Federal lands due to the LCAS.

*Our response:* Mining expansions or expected new mining projects were considered in the analysis of mining activity in Section 8 regardless of whether they were expected to occur on Federal lands or otherwise.

#### *Comments on the Initial Regulatory Flexibility Analysis (IRFA)*

43. *Comment:* The Small Business Administration (SBA), Office of Advocacy commented that the development analysis in the DEA should include more information on the number of small entities to which the proposed rule will apply, similar to how impacts to small timber-related businesses are considered in the DEA.

*Our response:* Because the DEA did not provide estimates of impact to development activities, entities related to development were not considered in the draft IRFA. A supplemental analysis estimating impacts to development activities conducted during the public comment period provided more information on how landowners may be affected by the proposed rule. The IRFA in the Final EA is, therefore, updated to include numbers of development-related small entities. Further, this updated information was taken into consideration in the development of this final rule.

44. *Comment:* The SBA commented that the DEA does not include data on the economic impacts of the proposed rule on small entities in the development industry, which include developers, builders, and other types of small entities in addition to landowners.

*Our response:* The supplemental development analysis incorporated in the Final EA quantifies impacts to land values associated with restrictions on development for the purposes of lynx conservation. The IRFA assumes that the primary impact of decreased development is to the landowner in the form of decreased land value. The analysis further assumes that, to the extent that decreased development leads to impacts on related businesses, these businesses are small. This is because the majority (90 to 100 percent depending on the sector) of the businesses in related industries (e.g., construction, planning, and landscaping) are small in the counties containing proposed critical habitat. While more detailed information became available to us for consideration of potential economic

impacts on small business entities through the supplemental analysis, because only National Park Service lands remain in the final designation, we do not anticipate significant impacts to a substantial number of small business entities. Please refer to our discussion concerning compliance with the Regulatory Flexibility Analysis later in the rule.

45. *Comment:* The SBA expressed concern that the IRFA does not include impacts to the timber industry such as decreased employment, decreased number of businesses or foregone revenue, or profit per business. The comment further stated that small entities are worried that further regulatory restrictions from the State and local government will further burden the timber industry. Another comment on the DEA stated that the IRFA is inadequate and requested that the IRFA be revised to consider the impacts to small businesses that rely on the resources on public lands. The comment further asserted that the IRFA should look at small business impacts in individual communities as opposed to the habitat as a whole.

*Our response:* The draft IRFA contained within the DEA represents an initial examination of potential impacts to small businesses to provide information regarding whether the rule may result in a significant impact on a substantial number of small businesses, and, therefore, whether a full Regulatory Flexibility Analysis should be completed, which would require additional research, outreach, and analysis. However, because only National Park Service lands remain in the final designation, we do not anticipate significant impacts to a substantial number of small business entities. Please refer to our discussion concerning compliance with the Regulatory Flexibility Analysis later in the rule.

46. *Comment:* One commenter expressed concern about the reliability of data sources used to estimate the number of small businesses in the study area.

*Our response:* As stated in the notes to Exhibit C-3, the number of small timber-related businesses in the study area is from the Dun & Bradstreet database, a frequently cited source of business information, and was acquired in February 2006. The numbers of small businesses estimated are for all counties containing critical habitat, and not just for the study area within the county as this information is not readily available at a more refined geographic scale than county.

### Summary of Changes From Proposed Rule

In preparing the final critical habitat designation for the lynx, we reviewed and considered comments from the public on the proposed designation of critical habitat published on November 9, 2005 (70 FR 68294). We published a Notice of Availability of the DEA and draft environmental assessment on September 11, 2006 (71 FR 53355). As a result of comments received on the proposal, the DEA, draft environmental assessment and a reevaluation of the proposed critical habitat boundaries we made changes to our proposed designation as follows:

(1) We reevaluated the proposed critical habitat units based on peer review, public comments, and biological information received during the public comment period. We excluded areas based on Tribal ownership, lands with existing lynx management plans or pending HCPs for lynx, lands managed for commercial forestry because of existing management practices and partnerships, and small landowners and lands not managed for commercial forestry because of their minor role in the conservation of lynx compared to efforts taken by larger landowners on adjacent and nearby lands who have an important role in the conservation of lynx habitat.

(2) Portions of units that did not contain PCEs or where development was concentrated were removed from the final designation based on available maps.

(3) Collectively, we excluded or removed a total of approximately 41,922 km<sup>2</sup> (16,190 mi<sup>2</sup>) of land from this final critical habitat designation. Please refer to Table 1 for the differences in the amount of area proposed for designation and the areas designated in this final rule. For a detailed discussion of all exclusions and exemptions, please refer to Exclusions Under Section 4(b)(2) of the Act section below.

### Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Conservation, as defined under

section 3 of the Act means to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking. Conservation is a process which contributes to improving the status of the species. Individual actions may still be considered conservation even though in and of themselves they do not remove the species' need for protection under the Act.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands. Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

To be included in a critical habitat designation, the habitat within the geographical area occupied by the subspecies must first have features that are essential to the conservation of the subspecies. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the subspecies (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management considerations or protection. Thus, we do not include areas where existing management is sufficient to conserve the subspecies. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2).) Accordingly, when the best

available scientific data do not demonstrate that the conservation needs of the subspecies require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the subspecies at the time of listing. An area currently occupied by the subspecies but was not known to be occupied at the time of listing will likely, but not always, be essential to the conservation of the subspecies and, therefore, typically included in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific data available. They require Service biologists to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information is generally the listing package for the species. Additional information sources include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the subspecies. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

#### Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat, we consider those physical and biological features (PCEs) that are essential to the conservation of the subspecies, and within areas occupied by the subspecies at the time of listing, that may require special management considerations and protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The area designated as critical habitat provides boreal forest habitat for breeding, non-breeding, and dispersing lynx in metapopulations across the species' range in the contiguous United States. No areas are being designated solely because they provide habitat for dispersing animals. At this time, the biological or physical features of habitats lynx choose for dispersal are not well-understood; while it is assumed lynx would prefer to travel where there is forested cover, the literature contains many examples of lynx crossing large, unforested openings (e.g., Roe *et al.* 2000, p. 30–33). The areas being designated as critical habitat serve a variety of functions that include acting as a source of dispersing animals and providing habitat that may serve as travel corridors to facilitate dispersal and exploratory movements. The

features or habitat components essential for the conservation of the species were determined from studies of lynx and snowshoe hare ecology.

The specific biological and physical features, otherwise known as the primary constituent elements, essential to the conservation of the lynx are:

(1) Boreal forest landscapes supporting a mosaic of differing successional forest stages and containing:

(a) Presence of snowshoe hares and their preferred habitat conditions, which include dense understories of young trees, shrubs or overhanging boughs that protrude above the snow; and

(b) Winter snow conditions that are generally deep and fluffy for extended periods of time; and

(c) Sites for denning that have abundant coarse woody debris, such as downed trees and root wads.

A description of the primary constituent elements is provided below.

#### *Boreal Forest Landscapes (Space for Individual and Population Growth and Normal Behavior)*

Lynx populations respond to biotic and abiotic factors at different scales. At the regional scale, snow conditions, boreal forest and competitors (especially bobcat) influence the species' range (Aubry *et al.* 2000, p. 378–380; McKelvey *et al.*, 2000b p. 242–253; Hoving *et al.*, 2005 p. 749). At the landscape scale within each region, natural and human-caused disturbance processes (e.g., fire, wind, insect infestations and forest management) influence the spatial and temporal distribution of lynx populations by affecting the distribution of good habitat for snowshoe hares (Agee 2000, pp. 47–73; Ruediger *et al.* 2000, pp. 1–3, 2–2–2–6, 7–3). At the stand-level scale, quality, quantity, and juxtaposition of habitats influence home range size, productivity, and survival (Aubry *et al.* 2000, pp. 380–390; Vashon *et al.* 2005a, pp. 9–11). At the substand scale, spatial distribution and abundance of prey and microclimate influence movements, hunting behavior, den, and resting site locations.

All of the constituent elements of critical habitat for lynx are found within large landscapes in what is broadly described as the boreal forest or cold temperate forest (Frelich and Reich 1995, p. 325, Agee 2000, pp. 43–46). In the contiguous United States, the boreal forest is more transitional rather than true boreal forest of northern Canada and Alaska (Agee 2000, pp. 43–46). This difference is because the boreal forest is at its southern limits in the contiguous

United States, where it transitions to deciduous temperate forest in the Northeast and Great Lakes and subalpine forest in the west (Agee 2000, pp. 43–46). We use the term “boreal forest” because it generally encompasses most of the vegetative descriptions of the transitional forest types that comprise lynx habitat in the contiguous United States (Agee 2000, pp. 40–41).

At a regional scale, lynx habitat is within the areas that support deep snow for extended periods and that support boreal forest vegetation types (see below for more detail). In eastern North America, lynx distribution was strongly associated with areas of deep snowfall and 100 km<sup>2</sup> (40 mi<sup>2</sup>) landscapes with a high proportion of regenerating forest (Hoving 2001, pp. 75,143). Hoving *et al.* (2004, p. 291) concluded that the broad geographic distribution of lynx in eastern North America is most influenced by snowfall, but within areas of similarly deep snowfall, measures of forest succession become more important factors in determining lynx distribution.

Boreal forests used by lynx are generally cool, moist and dominated by conifer tree species, primarily spruce and fir (Agee 2000, pp. 40–46; Aubry *et al.* 2000, pp. 378–382; Ruediger *et al.* 2000, pp. 4–3, 4–8–4–11, 4–25–4–26, 4–29–4–30). Boreal forest landscapes used by lynx are a heterogeneous mosaic of vegetative cover types and successional forest stages created by natural and human-caused disturbances (McKelvey *et al.* 2000a, pp. 426–434). Periodic vegetation disturbances stimulate development of dense understory or early successional habitat for snowshoe hares (Ruediger *et al.* 2000, pp. 1–3–1–4, 7–4–7–5). In Maine, lynx were positively associated with landscapes altered by clearcutting 15 to 25 years previously (Hoving *et al.* 2004, p. 291).

The overall quality of the boreal forest landscape matrix and juxtaposition of stands in suitable condition within the landscape is important for both lynx and snowshoe hares in that it can influence connectivity or movements between suitable stands, availability of food and cover and spatial structuring of populations or subpopulations (Hodges 2000b, pp. 184–195; McKelvey *et al.* 2000a, pp. 431–432; Walker 2005, pp. 79). For example, lynx foraging habitat must be near denning habitat to allow females to adequately provision dependent kittens, especially when the kittens are relatively immobile. In north-central Washington, hare densities were higher in landscapes with an abundance of dense boreal forest interspersed with

small patches of open habitat, in contrast to landscapes composed primarily of open forest interspersed with few dense vegetation patches (Walker 2005, p. 79). Similarly, in northwest Montana, connectivity of dense patches within the forest matrix benefited snowshoe hares (Ausband and Baty 2005, p. 209). In mountainous areas, lynx appear to prefer flatter slopes (Apps 2000, p. 361; McKelvey *et al.* 2000d, p. 333; von Kienast 2003, p. 21, Table 2; Maletzke 2004, pp. 17–18).

Individual lynx require large portions of boreal forest landscapes to support their home ranges and to facilitate dispersal and exploratory travel. The size of lynx home ranges is believed to be strongly influenced by the quality of the habitat, particularly the abundance of snowshoe hares, in addition to other factors such as gender, age, season, and density of the lynx population (Aubry *et al.* 2000, pp. 382–385; Mowat *et al.* 2000, pp. 276–280). Generally, females with kittens have the smallest home ranges while males have the largest home ranges (Moen *et al.* 2005, p. 11). Reported home range sizes vary greatly from 31 km<sup>2</sup> (12 mi<sup>2</sup>) for females and 68 km<sup>2</sup> (26 mi<sup>2</sup>) for males in Maine (Vashon *et al.* 2005a, p. 7), 21 km<sup>2</sup> (8 mi<sup>2</sup>) for females to 307 km<sup>2</sup> (119 mi<sup>2</sup>) for males in Minnesota (Moen *et al.* 2005, p. 12), and 88 km<sup>2</sup> (34 mi<sup>2</sup>) for females and 216 km<sup>2</sup> (83 mi<sup>2</sup>) for males in northwest Montana (Squires *et al.* 2004b, pp. 15–16).

### Forest Type Associations

#### Maine

Lynx were more likely to occur in 100 km<sup>2</sup> (40 mi<sup>2</sup>) landscapes with regenerating forest, and less likely to occur in landscapes with recent clearcut or partial harvest, (Hoving *et al.* 2004, pp. 291–292). Lynx in Maine select softwood-dominated (spruce and fir) regenerating stands (Vashon *et al.* 2005a, p. 8). Regenerating stands used by lynx generally develop 15–30 years after forest disturbance and are characterized by dense horizontal structure and high stem density within a meter of the ground. These habitats support high snowshoe hare densities (Homyack 2003, p. 63; Fuller and Harrison 2005, pp. 716,719; Vashon *et al.* 2005a, pp. 10–11). At the stand scale, lynx in northwestern Maine selected older (11 to 26 year-old), tall (4.6 to 7.3 m (15 to 24 ft)) regenerating clearcut stands and older (11 to 21 year-old) partially harvested stands (A. Fuller, University of Maine, unpubl. data).

#### Minnesota

In Minnesota, lynx primarily occur in the Northern Superior Uplands Ecological Section of the Laurentian Mixed Forest Province. Historically, this area was dominated by red pine (*Pinus resinosa*) and white pine (*P. strobus*) mixed with aspen (*Populus* spp.), paper birch (*Betula papyrifera*), spruce, balsam fir (*A. balsamifera*) and jack pine (*P. banksiana*) (Minnesota Department of Natural Resources [Minnesota DNR] 2003, p. 2).

Preliminary research suggests lynx in Minnesota generally use younger stands (less than 50 years) with a conifer component in greater proportion than their availability (R. Moen, University of Minnesota, unpubl. data). Lynx prefer predominantly upland forests dominated by red pine, white pine, jack pine, black spruce (*P. mariana*), paper birch, quaking aspen (*P. tremuloides*), or balsam fir (R. Moen, unpubl. data).

#### Washington

In the North Cascades in Washington, the majority of lynx occurrences were found above 1,250 m (4,101 ft) (McKelvey *et al.* 2000b, p. 243, 2000d, p. 321; von Kienast 2003, p. 28, Table 2; Maletzke 2004, p. 17). In this area, lynx selected Engelman spruce (*P. engelmannii*)-subalpine fir (*A. lasiocarpa*) forest cover types in winter (von Kienast 2003, p. 28, Maletzke 2004, pp. 16–17). Lodgepole pine (*P. contorta*) is a dominant tree species in the earlier successional stages of these climax cover types. Seral lodgepole stands contained dense understories and therefore received high use by snowshoe hares and lynx (Koehler 1990, pp. 847–848; McKelvey *et al.* 2000d, pp. 332–335).

#### Northern Rockies

In the Northern Rocky Mountains, the majority of lynx occurrences are associated with the Rocky Mountain Conifer Forest or Western Spruce-Fir Forest vegetative class (Kuchler 1964, p. 4; McKelvey *et al.* 2000b, p. 246) and occur above 1,250 m (4,101 ft) elevation (Aubry *et al.* 2000, pp. 378–380; McKelvey *et al.* 2000b, pp. 243–245). The dominant vegetation that constitutes lynx habitat in these areas is subalpine fir, Engelman spruce and lodgepole pine (Aubry *et al.* 2000, p. 379; Ruediger *et al.* 2000, pp. 4–8–4–10). As in the Cascades, lodgepole pine is an earlier successional stage of subalpine fir and Engelman spruce climax forest cover types.

#### a. Snowshoe Hares (Food)

Snowshoe hare density is the most important factor explaining the

persistence of lynx populations (Steury and Murray 2004, p. 136). A minimum snowshoe hare density necessary to maintain a persistent, reproducing lynx population within the contiguous United States has not been determined, although Ruggiero *et al.* (2000, pp. 446–447) suggested that at least 0.5 hares per hectare (ha) (0.2 hares per acre (ac)) may be necessary. Steury and Murray (2004, p. 137) modeled lynx and snowshoe hare populations and predicted that a minimum of 1.1 to 1.8 hares per ha (0.4 to 0.7 hares per ac) was required for persistence of a reintroduced lynx population in the southern portion of the lynx range.

The boreal forest landscape must contain a mosaic of forest stand successional stages to sustain lynx populations over the long term as the condition of individual stands changes over time. If the vegetation potential (or climax forest type) of a particular forest stand is conducive to supporting abundant snowshoe hares, it likely will also go through successional phases that are unsuitable as lynx foraging (snowshoe hare habitat) or lynx denning habitat (Agee 2000, p. 62–72; Buskirk *et al.* 2000b, pp. 403–408). For example, a boreal forest stand where there has been recent disturbance, such as fire or timber harvest, resulting in little or no understory structure is unsuitable as snowshoe hare habitat for lynx foraging. That temporarily unsuitable stand may regenerate into suitable snowshoe hare (lynx foraging) habitat within 10 to 25 years, depending on local conditions (Ruediger *et al.* 2000, pp. 1–3–1–4, 2–2–2–5). Forest management techniques that thin the understory, however, may render the habitat unsuitable for hares and, thus, for lynx (Ruediger *et al.* 2000, pp. 2–4–3–2; Hoving *et al.* 2004, pp. 291–292). Stands may continue to provide suitable snowshoe hare habitat for many years until woody stems in the understory become too sparse, as a result of undisturbed forest succession or management (*e.g.*, clearcutting or thinning). Thus, if the vegetation potential of the stand is appropriate, a stand that is not currently in a condition that is suitable to support abundant snowshoe hares for lynx foraging or coarse woody debris for den sites has the capability to develop into suitable habitat for lynx and snowshoe hares with time.

As described previously, snowshoe hares prefer boreal forest stands that have a dense horizontal understory to provide food, cover and security from predators. Snowshoe hares feed on conifers, deciduous trees and shrubs (Hodges 2000b, pp. 181–183). Snowshoe hare density is correlated to understory

cover between approximately 1 to 3 m (3 to 10 ft) above the ground or snow level (Hodges 2000b, p. 184). Habitats most heavily used by snowshoe hares are stands with shrubs, stands that are densely stocked, and stands at ages where branches have more lateral cover (Hodges 2000b, p. 184). In Maine, the snowshoe hare densities were highest in stands supporting high conifer stem densities (Homyack 2003, p. 195, Robinson 2006, p. 69). In northcentral Washington, snowshoe hare density was highest in 20-year-old lodgepole pine stands where the average density of trees and shrubs was 15,840 stems per ha (6,415 stems per ac) (Koehler 1990, p. 848). Generally, earlier successional forest stages support a greater density of horizontal understory and more abundant snowshoe hares (Buehler and Keith 1982, p. 24; Wolfe *et al.* 1982, p. 668–669; Koehler 1990, pp. 847–848; Hodges 2000b, pp. 184–191; Griffin 2004, pp. 84–88); however, sometimes mature stands also can have adequate dense understory to support abundant snowshoe hares (Griffin 2004, p. 88). In Montana, lynx favor multistory stands, often in older-age classes, where the tree boughs touch the snow surface but where the stem density is low (Squires 2006, p. 4).

In Maine, the highest snowshoe hare densities were found in regenerating softwood (spruce and fir) and mixedwood stands with high conifer stem densities (Fuller and Harrison 2005, pp. 716,719, Robinson 2006, p. 69). In the north Cascades, the highest snowshoe hare densities were found in 20-year-old seral lodgepole pine stands with a dense understory (Koehler 1990, p. 847–848). In montane and subalpine forests in northwest Montana, the highest snowshoe hare densities in summer were generally in younger stands with dense forest structure, whereas in winter, snowshoe hare densities were as high or higher in mature stands with dense understory forest structure (Griffin 2004, p. 53). Snowshoe hare studies are just underway in Minnesota (Moen *et al.* 2005, p. 18); therefore, results on habitat relationships are still preliminary.

Habitats supporting abundant snowshoe hares must be present in a large proportion of the landscape to support a viable lynx population. Broad-scale snowshoe hare density estimates are not available for the areas being designated as lynx critical habitat; available snowshoe hare density estimates are only applicable for the immediate area and time frame for which the study was conducted and cannot be extrapolated further.

#### b. Snow Conditions (Other Physiological Requirements)

Snow conditions also determine the distribution of lynx and snowshoe hares. Deep, fluffy snow conditions likely restrict potential competitors such as bobcat or coyote from effectively encroaching on or hunting in winter lynx habitat. Snowfall was the strongest predictor of lynx occurrence at a regional scale (Hoving *et al.* 2005, p. 746, Table 5). In addition to snow depth, other snow properties, including surface hardness or sinking depth, are important factors in the spatial, ecological, and genetic structuring of the species (Stenseth *et al.* 2004, p. 75).

In the northeastern United States, lynx are most likely to occur in areas with a 10-year mean annual snowfall greater than 268 cm (105 in) (Hoving 2001, p. 75). The Northern Superior Uplands section of Minnesota receives more of its precipitation as snow than any section in the State, has the longest period of snow cover, and the shortest growing season (Minnesota DNR 2003, p. 2). Mean annual snowfall from 1971 to 2000 in this area was generally greater than 149 cm (59 in) (University of Minnesota 2005 Web page).

Information on average snowfall or snow depths in mountainous areas such as the Cascades or northwest Montana is limited because there are few weather stations in these regions that have measured snow fall or snow depth over time. An important consideration is that the topography strongly influences local snow conditions. In the Cascades, at the Mazama station, average annual snowfall from 1948 to 1976 was 292 cm (115 in) (Western Regional Climate Center 2005 Web page). In Montana, at the Seeley Lake Ranger Station, average annual snowfall from 1948 to 2005 was 315 cm (124 in), while at the Troy station the average total snowfall from 1961 to 1994 was 229 cm (90 in) (Western Regional Climate Center 2005 Web page).

#### c. Denning Habitat (Sites for Reproduction and Rearing of Offspring)

Lynx den sites are found in mature and younger boreal forest stands that have a large amount of cover and downed, large woody debris. The structural components of lynx den sites are common features in managed (logged) and unmanaged (e.g., insect damaged, wind-throw) stands. Downed trees provide excellent cover for den sites and kittens and often are associated with dense woody stem growth.

Sub-stand characteristics were evaluated for 26 lynx dens from 1999 to

2004 in northwest Maine. Dens were found in several stand types. Modeling of den site variables determined that tip-up mounds (exposed roots from fallen trees) alone best explained den site selection (J. Organ, Service, unpubl. data). Tip-up mounds may purely be an index of downed trees, which were abundant on the landscape. Horizontal cover at 5 m (16 ft) alone was the next best performing model (J. Organ, unpubl. data). Dead downed trees were sampled, but did not explain den site selection as well as tip-up mounds and cover at 5 m (16 ft). Lynx essentially select dense cover in a cover-rich area for denning.

In the North Cascades, Washington, lynx denned in mature (older than 250 years) stands with an overstory of Engelman spruce, subalpine fir and lodgepole pine with an abundance of downed woody debris (Koehler 1990, p. 847). In this study, all den sites were located on north-northeast aspects (Koehler 1990, p. 847). In northwest Montana, the immediate areas around dens were in a variety of stand ages but all contained abundant woody debris including downed logs, blowdowns, and rootwads, and dense understory cover (Squires *et al.* 2004b, Table 3). Information on den site characteristics in Minnesota has not yet been reported (Moen *et al.* 2005, p. 8).

This critical habitat designation is designed for the conservation of the PCE essential to the conservation of the lynx and necessary to support lynx life history functions. The PCE comprises the essential features of boreal forest that (1) provide adequate prey resources necessary for the persistence of local populations and metapopulations of lynx through reproduction; (2) act as a possible source of lynx for more peripheral boreal forested areas; (3) enable the maintenance of home ranges; (4) incorporate snow conditions for which lynx are highly specialized that give lynx a competitive advantage over potential competitors; (5) provide denning habitat; and (6) provide habitat connectivity for travel within home ranges, exploratory movements, and dispersal.

#### Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available in determining critical habitat. We have reviewed the approach to the conservation of the lynx provided in a recovery outline (Service 2005, entire); information from State, Federal and tribal agencies; and information from academia and private organizations that have collected scientific data on lynx.

The focus of our strategy in considering lands for designation as critical habitat was on boreal forest landscapes of sufficient size to encompass the temporal and spatial changes in habitat and snowshoe hare populations to support interbreeding lynx populations or metapopulations over time. Individual lynx maintain large home ranges; the areas identified to have features essential to the conservation of the lynx are large enough to encompass multiple home ranges. A secondary consideration is that, in addition to supporting breeding populations, these areas provide connectivity among patches of suitable habitat (e.g., patches containing abundant snowshoe hares), whose locations in the landscape shift through time.

We reviewed available information that pertains to the habitat requirements of this species and its principal prey, the snowshoe hare. This information included data in reports submitted by researchers holding recovery permits under section 10(a)(1)(A) of the Act; research published in peer-reviewed articles, presented in academic theses, agency reports and unpublished data; and various Geographic Information System (GIS) coverages (e.g., land cover type information, land ownership information, snow depth information, topographic information, locations of lynx obtained from radio- or GPS-collars and locations of lynx confirmed via DNA analysis or other verified records).

In designating critical habitat for the lynx we used the best scientific data available to evaluate areas that possess those physical and biological features essential to the conservation of the species and that may require special management considerations or protection. In evaluating areas as critical habitat, we first determined the geographic area occupied by the species. We utilized data providing verified evidence of the occurrence of lynx and evidence of the presence of breeding lynx populations as represented by records of lynx reproduction. We focused on records since 1995 to ensure that this critical habitat designation is based on the data that most closely represents the current status of lynx in the contiguous United States and the geographic area occupied by the species. Data that define the historic and current range of the lynx (e.g., McKelvey *et al.* 2000b, pp. 207–232; Hoving *et al.* 2003, entire) constitute the geographic area that may be occupied by the species; therefore, we determined that areas outside the historic distribution are not essential to the conservation of the species. Although the average life span

of a wild lynx is not known, we have assumed that a lynx born in 1995 could have been alive in 2000 or 2003, the dates of publication of the final listing rule and the clarification of findings. Recent verified lynx occurrence records were provided by Federal research entities, state wildlife agencies, academic researchers, and private individuals or organizations working on lynx (K. Aubry, Pacific Northwest Research Station, unpubl. data; S. Gehman, Wildthings Unlimited, unpubl. data; S. Gniadek, Glacier National Park, unpubl. data; S. Loch, Independent Scientist, and E. Lindquist, Superior National Forest, unpubl. data; K. McKelvey, Rocky Mountain Research Station; unpubl. data; Minnesota DNR 2005 Web site; R. Moen, University of Minnesota, Natural Resources Research Institute, unpubl. data.; J. Squires, Rocky Mountain Research Station, unpubl. data; J. Vashon, Maine Department of Inland Fisheries and Wildlife, unpubl. data).

By accepting only verified recent lynx records, we restricted the available lynx occurrence dataset because we wanted reliable data for the purposes of evaluating areas and features for critical habitat designation. The reliability of lynx occurrence reports can be questionable because the bobcat, a common species, can be confused with the lynx, which is similar in appearance. Additionally, many surveys are conducted by snow tracking in which correct identification of tracks can be difficult because of variable conditions affecting the quality of the track and variable expertise of the tracker. Our definition of a verified lynx record is modified from McKelvey *et al.* (2000b, p. 209)—(1) an animal (live or dead) in hand or observed closely by a person knowledgeable in lynx identification, (2) genetic (DNA) confirmation, (3) snow tracks only when confirmed by genetic analysis (e.g., McKelvey *et al.* 2006, entire) or (4) location data from radio- or GPS-collared lynx. Documentation of lynx reproduction consists of lynx kittens in hand, or observed with the mother by someone knowledgeable in lynx identification, or snow tracks demonstrating family groups traveling together, as identified by a person highly knowledgeable in identification of carnivore tracks. However, we made an exception and accepted snow track data from Maine because of the stringent protocols used in confirming tracks as lynx and the minimal number of species in the area with which lynx tracks could be misidentified (McCollough 2006, entire).

The geographical area occupied by the species was then delineated to encompass areas containing features essential to the conservation of the lynx, the majority of recent lynx records, evidence of breeding lynx populations, the boreal forest type that is currently occupied by lynx in that particular region and direct connectivity with lynx populations in Canada. Lynx populations in the contiguous United States seem to be influenced by lynx population dynamics in Canada (Thiel 1987; McKelvey *et al.* 2000a, p. 427, 2000c, p. 33). Many of these populations in Canada are directly interconnected with United States' populations, and are likely a source of emigration into the contiguous United States, lynx from the contiguous United States are known to move into Canada. Therefore, we assume that retaining connectivity with larger lynx populations in Canada is important to ensuring long-term persistence of lynx populations in the United States. We assume that, regionally, lynx within the contiguous United States and adjacent Canadian provinces interact as metapopulations. Where available, data on historic average snow depths and bobcat harvest provided additional insight for refining and delineating appropriate boundaries for consideration as critical habitat.

In the North Cascades and Northern Rockies, the features essential to the conservation of lynx, the majority of lynx records, evidence of reproduction, and the boreal forest types are found above 4,000 feet (ft) (1,219 meters [m]) in elevation (McKelvey *et al.* 2000b, pp. 243–245; McAllister *et al.* 2000, entire). Thus, we limited the delineation of critical habitat to lands above this elevation. Additionally, in the North Cascades, features essential to the conservation of the lynx and the majority of the lynx records and evidence of reproduction occur east of the crest of the Cascade Mountains.

Once we determined which lands contained the physical and biological features essential to the conservation of lynx, we did not include lands that did not require additional special management according for the definition of critical habitat, and lands where the benefits of exclusion outweighed the benefits of inclusion. Finally, we excluded Tribal lands in accordance with Secretarial Order 3206, *et al.*

Lands that we did not include because they did not require special management included lands with management plans to conserve lynx, such as the Superior National Forest; Garnet Resource Area, Bureau of Land Management; Flathead Indian

Reservation, and the Spokane District, Bureau of Land Management. We also did not include USFS Lands Covered by a Conservation Agreement for Lynx, which includes portions of the Flathead National Forest, Helena National Forest, Idaho Panhandle National Forests, Kootenai National Forest, Lewis and Clark National Forest, Lolo National Forest and the Okanogan-Wenatchee National Forest. Please refer to Application of Section 3(5)(A) of the Endangered Species Act discussion below.

We determined that the benefits of exclusion outweighed the benefits of inclusion for the Montana Department of Natural Resources and Conservation Forested State Trust lands that are covered by a pending Habitat Conservation Plan for lynx and other species, Washington Department of Natural Resource (WDNR) lands managed under Lynx Habitat Management Plan, lands managed for commercial forestry, small landowners, and other lands not managed for commercial forestry but that benefit from conservation measures taken by adjacent or nearby landowners (which includes inholdings within National Parks and National Forests). These exclusions are described in more detail in section 4(b)(2) below.

We excluded Tribal lands in accordance with Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" and other orders and directives. These include Houlton Band of Maliseet Indians, Aroostook Band of Micmac Indians, Passamaquoddy Tribe, Penobscot Indian Nation, Grand Portage Indian Reservation, Vermillion Lake Indian Reservation.

Based on comments received, the availability of better maps and inspection of aerial photos, we removed sections of lands that were not forested. We then removed a 1 mile strip along the entire Lake Superior shoreline in Minnesota and the area within a 10-mile radius of Duluth, MN, because this is where existing development is concentrated (Industrial Economics, Incorporated 2006, pp. 4–12), limiting the potential of any lynx habitat intermingling in these areas.

As a result of stepping through this process, we are not designating any critical habitat in Maine, and only National Park Service lands in Minnesota (Voyageurs National Park), Montana (Glacier National Park), and Washington (North Cascades National Park including Lake Chelan National Recreation Area).

Given the scale of the critical habitat units, it was not feasible to completely avoid encompassing waterbodies, including lakes, reservoirs and rivers, grasslands, or human-made structures such as buildings, paved and gravel roadbeds, parking lots, and other structures that lack the PCEs for the lynx. Any such developed areas and the land on which such structures are located inside critical habitat boundaries, are excluded by text and are not designated critical habitat.

Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the species and/or primary constituent element in adjacent critical habitat.

When considering what areas to include as critical habitat, we focused closely on areas with reliable evidence of lynx occurrence and reproduction since 1995. For example, because there is no verified evidence of lynx occupation or reproduction in New Hampshire or western Maine since 1995, we did not consider these areas to be essential to the conservation of the lynx. In addition, while evaluating information for the critical habitat proposal, we received bobcat harvest data for Minnesota showing abundant bobcat harvest and reduced lynx presence in the area west of the critical habitat unit in Minnesota, which suggests the western portion of the area preliminarily delineated as core in Minnesota may not be of high quality for lynx.

We determined that the Kettle Range in northcentral Washington and the Greater Yellowstone Ecosystem did not contain the features essential to the conservation of the listed entity and thus did not include them in either our proposed or final critical habitat rules. The Kettle Range historically supported lynx populations (Stinson 2001, pp.13–14). However, although boreal forest habitat within the Kettle Range appears of high quality for lynx, there is no evidence that the Kettle Range is currently occupied by a lynx population (Koehler 2005 entire). In particular, we have no information to suggest a lynx population has occupied the Kettle area since 1995 so it did not meet our criteria for consideration as critical habitat. Therefore, we did not propose the Kettle Range as critical habitat.

Although lynx currently occupy the Greater Yellowstone Ecosystem (Murphy *et al.* 2004, entire; J. Squires, Rocky Mountain Research Station, unpubl. data; S. Gehman, Wildthings Unlimited, unpubl. data), their presence has been at a lower level compared to areas we considered as critical habitat. In the clarification of findings published

in the **Federal Register** on July 3, 2003 (68 FR 40076), we concluded this was because habitat in this area is less capable of supporting snowshoe hares because it is naturally marginal (more patchy and drier forest types) and because the Greater Yellowstone Ecosystem is disjunct from likely source populations. Within Yellowstone National Park, few lynx were detected during recent surveys (Murphy *et al.* 2004, pp.8–9) and snowshoe hare densities were very low (Hodges and Mills 2005, pp. 5–6). Murphy *et al.* (2004, pp. 9–10) concluded that elevations and slope aspects cause lynx habitat in this area to be naturally highly fragmented, resulting in low lynx densities. Few lynx were documented in the Wyoming Mountain Range in the southern portion of the ecosystem (Squires and Laurion 2000, pp. 343–345; Squires *et al.* 2001, pp. 9–10). On study sites on the western edge of the Greater Yellowstone Ecosystem in Idaho, the subalpine fir vegetation series that comprises lynx and snowshoe hare habitat was found only in small, discontinuous patches (McDaniel and McKelvey 2004, pp. 15–18). In this study area, few stands supported snowshoe hare densities similar to areas known to support lynx (McKelvey and McDaniel 2001, pp. 11–18). Therefore, because the habitat is of lower quality as indicated by the low numbers of lynx and snowshoe hares, we did not consider the habitat within the Greater Yellowstone Ecosystem to have the features that are essential for the conservation of lynx.

Native lynx were functionally extirpated from their historic range in Colorado and southern Wyoming in the Southern Rocky Mountains by the time the lynx was listed in 2000. In 1999, the State of Colorado began an intensive effort to reintroduce lynx. Although it is too early to determine whether the introduction will result in a self-sustaining population, the reintroduced lynx have produced kittens and now are distributed throughout the lynx habitat in Colorado and southern Wyoming. These animals are not designated as experimental under section 10(j) of the Act. Although Colorado's reintroduction effort is an important step toward the recovery of lynx, we determined that the Southern Rockies does not have features that are essential to the conservation of lynx and require special management.

Many areas within the contiguous United States have one or more individual lynx records with no evidence of persistent, reproducing lynx populations. It is possible some of these areas may support undocumented persistent populations of lynx.

However, most of these records are likely a result of wide-ranging dispersal events, occur in habitat that is less suitable for lynx than in the core areas, and are mostly disjunct from areas that contain persistent lynx populations. We consider these areas as secondary or peripheral and their role in sustaining persistent lynx populations is unclear; such areas may provide habitat to dispersing lynx, especially when populations are extremely high and some of these animals may eventually settle in areas capable of supporting lynx populations. We do not believe these areas require special management for lynx.

Secondary and peripheral areas contain only periodic records of lynx over time, and they lack evidence of reproducing lynx populations. Habitat suitability for lynx has not been assessed throughout the secondary and peripheral areas, so we are not certain whether the PCEs are present. However, the relative lack of lynx records over time, and, in particular the lack of evidence of reproducing populations, may suggest that habitat (snowshoe hare densities, in particular) has not been adequate historically, nor is it currently adequate, to support reproducing lynx populations. Additionally, some of the peripheral areas are naturally disjunct and support few historical records of lynx.

**Special Management Considerations or Protections**

We believe the areas designated as critical habitat in this final rule will require some level of management and/or protection to ensure the conservation of the lynx; the General Management Plans for the National Parks designated lack direction specific to conserve lynx. The areas we designated are components of the areas containing the features essential to the conservation of lynx, which provide connectivity to the larger lynx populations in Canada. This connectivity is important to maintain, as the conservation of lynx in the United States may not be possible without it. The designation of critical habitat does not imply that lands outside of critical habitat do not play an important role in the conservation of the lynx. Federal activities outside of critical habitat are still subject to review under section 7 of the Act if they may affect the lynx or its critical habitat (such as activities on Federal lands, Clean Water Act permits, etc.). Prohibitions of section 9 of the Act also continue to apply both inside and outside of designated critical habitat. A detailed discussion of threats to the lynx and its habitat can be found in the final listing rule (65 FR 16052, March 24, 2000) and the clarification of findings (68 FR 40076, July 3, 2003).

**Critical Habitat Designation**

We are designating three units as critical habitat for the lynx (Table 1). The critical habitat areas described below constitute our best assessment at this time of areas: (1) Determined to be occupied at the time of listing, (2) contain the primary constituent elements essential for the conservation of the species, and (3) possibly requiring special management. The three areas designated as critical habitat are Voyageurs National Park in Minnesota, portions of Glacier National Park in Montana, and portions of North Cascades National Park in Washington. To further understand the location of these designated areas, please see the associated maps found within this final rule (also available at our Web site: <http://mountain-prairie.fws.gov/species/mammals/lynx/>).

Table 1. Critical Habitat Units designated for the lynx. Area Proposed for Designation includes the area meeting the definition of critical habitat for the lynx (see the November 9, 2005 (70 FR 68294) proposed rule for a detailed description). Excluded Area includes the area excluded from the final critical habitat designation. Area Designated includes the final designated area.

Critical habitat units	Area proposed for designation km <sup>2</sup> (mi <sup>2</sup> )	Excluded area km <sup>2</sup> (mi <sup>2</sup> )	Land ownership	Area designated km <sup>2</sup> (mi <sup>2</sup> )
Unit 1: Maine .....	27,530 (10,633)	27,530 (10,633)	None designated .....	0
Unit 2: Minnesota .....	9,183 (3,546)	8363 (3,229)	Voyageurs National Park .....	822 (317)
Unit 3: Northern Rocky Mountains (MT and ID) .....	9,192 (3,549)	5,594 (2,160)	Glacier National Park .....	3598 (1,389)
Unit 4: North Cascades .....	785 (303)	435 (168)	North Cascades National Park .....	348 (135)
Total .....	.....	.....	.....	4,768 (1,841)

Below we provide a description of those lands being designated as critical habitat for the Canada lynx in this final rule. Please refer to the November 9, 2005 (70 FR 68294) proposed rule for a detailed description of the lands proposed.

*Unit 1: Maine*

All lands essential to the conservation of the Canada lynx that meet the definition of critical habitat have been excluded from this unit pursuant to section 4(b)(2) of the Act. Please refer to the Application of Section 3(5)(A) of the Endangered Species Act Exclusions Under Section 4(b)(2) of the Act sections below.

*Unit 2: Minnesota*

Voyageurs National Park constitutes the lands designated as critical habitat in this unit. All other lands that met the definition of critical habitat have been excluded from this unit pursuant to section 4(b)(2) of the Act. Please refer to the Application of Section 3(5)(A) of the Endangered Species Act Exclusions Under Section 4(b)(2) of the Act sections below. This unit supports the PCE and requires special management to address the lack of direction in the General Management Plan specific to conserve lynx.

*Unit 3: Northern Rocky Mountains*

The lands of Glacier National Park above 4,000 ft (122 m) on the west side

of the Continental Divide and to the Park borders east of the Continental Divide constitute the critical habitat designation in this unit. All other lands that met the definition of critical habitat have been excluded from this unit pursuant to section 4(b)(2) of the Act. Please refer to the Application of Section 3(5)(A) of the Endangered Species Act Exclusions Under Section 4(b)(2) of the Act sections below. This unit supports the PCE and requires special management to address the lack of direction in the General Management Plan specific to conserve lynx.

*Unit 4: North Cascades*

The lands of North Cascades National Park above 4,000 feet elevation east of the Cascade Crest, including Lake



Chelan National Recreation Area, constitute the critical habitat designation in this unit. All other lands that met the definition of critical habitat have been excluded from this unit pursuant to section 4(b)(2) of the Act. Please refer to the Application of Section 3(5)(A) of the Endangered Species Act Exclusions Under Section 4(b)(2) of the Act sections below. This unit supports the PCE and requires special management to address the lack of direction in the General Management Plan specific to conserve lynx.

### Effects of Critical Habitat Designation

#### Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." However, recent decisions by the 5th and 9th Circuit Court of Appeals have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. This is a procedural requirement only. However, once a proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section

7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing their proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report; the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's issuance of: (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or (2) a biological opinion for Federal actions that may affect, and are likely to

adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. "Reasonable and prudent alternatives" are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid jeopardy to the listed species or destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where a new species is listed or critical habitat is subsequently designated that may be affected and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the lynx or its designated critical habitat will require section 7 consultation under the Act. Activities on State, tribal, local or private lands requiring a Federal permit (such as a permit from the Corps under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local or private lands that are not federally-funded, authorized, or permitted, do not require section 7 consultations.

*Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the Lynx and Its Critical Habitat*

**Jeopardy Standard**

Prior to and following designation of critical habitat, the Service has applied an analytical framework for lynx jeopardy analyses that relies heavily on the importance of core area populations to the survival and recovery of the lynx. The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of the lynx in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population to the survival and recovery of the species as a whole.

**Adverse Modification Standard**

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting lynx critical habitat.

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the species.

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for the lynx is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the lynx include, but are not limited to:

(1) Actions that would reduce or remove understory vegetation within boreal forest stands on a scale proportionate to the large landscape used by lynx. Such activities could include, but are not limited to, fuels treatment of forest stands. These activities could significantly reduce the

quality of snowshoe hare habitat such that the landscape's ability to produce adequate densities of snowshoe hares to support persistent lynx populations is at least temporarily diminished.

(2) Actions that would cause permanent loss or conversion of the boreal forest on a scale proportionate to the large landscape used by lynx. Such activities could include, but are not limited to, recreational area developments; certain types of mining activities and associated developments; and road building. Such activities could eliminate and fragment lynx and snowshoe hare habitat.

(3) Actions that would increase traffic volume and speed on roads that divide lynx critical habitat. Such activities could include, but are not limited to, transportation projects to upgrade roads or development of a new tourist destination. These activities could reduce connectivity within the boreal forest landscape for lynx and could result in increased mortality of lynx within the critical habitat units, as lynx are highly mobile and frequently cross roads during dispersal, exploratory movements or travel within their home ranges.

If you have questions regarding whether specific activities may constitute destruction or adverse modification of critical habitat, contact the Supervisor of the appropriate Ecological Services Field Office (see list below).

State	Address	Phone No.
Minnesota .....	4101 East 80th Street Bloomington, Minnesota 55425 .....	(612) 725-3548
Montana .....	585 Shepard Way Helena, Montana 59601 .....	(406) 449-5225
Washington .....	11103 E. Montgomery Drive Spokane, Washington 99206 .....	(509) 893-8015

All of the units designated as critical habitat, as well as those specific areas that have been excluded or that do not meet the definition of critical habitat, contain features essential to the conservation of the lynx. All units are within the geographic range of the species, and all were occupied by the species at the time we last formally reviewed the status of the species under the Act in 2003, based on surveys and research documenting the presence and reproduction of lynx (68 FR 40076, July 3, 2003). Federal agencies already consult with us on activities in areas currently occupied by the lynx, or if the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the lynx.

*Application of Section 3(5)(A) of the Endangered Species Act*

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographical area occupied by the species on which are found those physical and biological features (i) essential to the conservation of the species, and (ii) which may require special management considerations or protection. Therefore, areas within the geographical area occupied by the species that do not contain the features essential to the conservation of the species are not, by definition, critical habitat. Similarly, areas within the geographical area occupied by the species that require no special management or protection also are not, by definition, critical habitat.

There are multiple ways to provide management for species habitat.

Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans, as well as management under Federal agency jurisdiction can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole, will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent, overall. In making this determination, we examine

whether the plan provides management, protection, or enhancement of the PCE that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

During development of final critical habitat for the lynx, we first determined which physical and biological features are essential to the species' conservation and delineated the specific areas that contain those features and recent verified records of lynx presence and reproduction. Next, we refined the delineation of the designation to include only those lands that contained essential features that require special management or protection pursuant to the definition of critical habitat in 3(5)(A) of the Act.

During this process, we identified several areas where current land management results in no special management or protection being necessary. These areas include National Forests that are covered under a conservation agreement between us and the USFS (USFS and Service 2006 entire), or lands with management plans that adequately conserve the lynx and its habitat.

**National Forest Service Lands Covered by a Conservation Agreement for Lynx**

Since we proposed to list the lynx in 1999, the USFS has been an active partner in lynx conservation and recovery. The cooperation of the USFS in lynx conservation and recovery has been essential because the USFS manages the majority of lynx habitat in the contiguous United States. Thus, the USFS has substantial influence in addressing the primary threat to lynx identified at time of listing, that of inadequate regulatory mechanisms on Federal lands. The USFS was an instrumental partner in the development of the Lynx Conservation and Assessment Strategy (LCAS) (Ruediger *et al.* 2000, entire). The LCAS, described in more detail below, constitutes the best available information for conserving lynx. In 2000, we signed a conservation agreement with the USFS wherein the USFS committed to largely avoiding adverse effects to lynx until their LRMPs could be amended to incorporate lynx conservation (USFS and Service 2000, entire). The conservation agreement has been renewed twice (USFS and Service 2005 and 2006, entire). The 2006 agreement expires December 31, 2010, unless renewed (USFS and Service 2006, p. 8).

At the time of this final rule, the conservation agreement applies to all

National Forests that have not yet amended their Land Resource Management Plans (LRMPs) to provide measures for lynx conservation (USFS and Service 2006, entire). The agreement applies to 31 national forests (USFS and Service 2006, Table 1). Of these, we determined that seven national forests meet the first prong of the definition of critical habitat under 3(5)(A) of containing physical or biological features essential to the conservation of lynx (see Table 2). Our next step was to evaluate whether these areas may require special management or protection pursuant to the definition of critical habitat in 3(5)(A) of the Act. The conservation agreement ensures that these seven forests will continue to be managed for lynx conservation by: (1) continuing to manage these lands consistent with the LCAS until their LRMPs are revised to provide guidance to conserve lynx, which we have determined largely avoids adverse effects to lynx in the interim period (Service 2000, p. 47); and (2) ensuring sufficient conservation of the lynx and its habitat upon revision of LRMPs with guidance to conserve lynx. All projects in lynx habitat on USFS lands undergo section 7 review and we have no indication the USFS is not adhering to the guidance in the conservation agreement.

TABLE 2.—NATIONAL FORESTS COVERED BY THE CANADA LYNX CONSERVATION AGREEMENT WITHIN AREAS WITH FEATURES ESSENTIAL TO THE CONSERVATION OF LYNX

Critical habitat unit	National forest
North Cascades .....	Okanogan-Wenatchee National Forest. Flathead National Forest. Helena National Forest.
Northern Rocky Mountains .....	Idaho Panhandle National Forests. Kootenai National Forest. Lewis and Clark National Forest. Lolo National Forest.
Minnesota .....	None.
Maine .....	None.

The USFS is actively in the process of amending LRMPs in all the forests listed above except for the Okanogan-Wenatchee National Forest. Until such time as the plans are amended to provide guidance for lynx, the USFS will largely avoid projects that would have any adverse effects to lynx within these seven forests (USFS and Service 2006, p. 6). The more protective standards in the conservation agreement will be implemented the longest in the Okanogan-Wenatchee National Forest, where revision of the Forest Plan has recently been initiated. *The*

*commitment to avoid adverse effects in the conservation agreement is extremely protective of the lynx and its habitat, and is well beyond any protections or conservation benefits that would result from the designation of critical habitat.* This is because under normal section 7, projects with adverse effects on lynx habitat could proceed without modification as long as the adverse effects do not reach levels that adversely modify critical habitat. According to the LCAS, projects that adversely affect lynx habitat adversely affect lynx as well. Thus under the conservation agreement,

the vast majority of projects that adversely affect lynx habitat cannot proceed until Forest Plans are amended. To determine the level of protection that lynx within the forests identified in Table 2 (with the exception of the Okanogan-Wenatchee National Forest as indicated above) are likely to receive upon LRMP amendment, we analyzed three documents that constitute the best available information on the subject. These documents are the USFS draft Environmental Impact Statement for the Northern Rockies Lynx Amendment (DEIS) (USFS 2004, entire); a biological

assessment prepared for the Northern Rockies Lynx Amendment (USFS 2005, entire); and a supplement to the biological assessment (USFS 2006, entire). On January 5, 2004, the USFS announced the availability of the Draft Environmental Impact Statement (DEIS) that included a preferred alternative to conserve lynx while addressing issues related to wildland fire (USFS 2004, pp. 30–53). On November 23, 2005, the USFS requested formal consultation from us on the effects of their proposed action to amend management plans for 18 national forests to include lynx conservation while addressing wildland fire issues (Kimbell 2005, entire). We have not finalized our biological opinion but anticipate doing so in early 2007. The proposed action in the USFS's biological assessment indicates that the USFS will continue to conserve lynx habitat in the future as they have over the past 6 years.

We have analyzed the proposed action in the Biological Assessment (USFS 2005) for the purposes of this final rule to determine whether the six forests within the Northern Rockies that we identified as meeting the first prong of the definition of critical habitat are in need of special management or protection pursuant to 3(5)(A) of the Act. We have determined that the proposed LRMP amendments incorporate substantial and relevant conservation measures from the LCAS, or the equivalent thereof, based on updated information. Overall, the proposed action would increase conservation for lynx over the direction in the current LRMPs. Essential lynx habitat may be adversely affected by some of the proposed actions, mostly from fire and fuels management and a small amount of pre-commercial thinning activities. However, given adherence to LCAS guidelines that are proposed, these adverse effects would not amount to adverse modification, as the guidelines have been written to avoid significant large scale effects. Furthermore, these adverse effects are counterbalanced by a commitment to lynx conservation that applies to 94 percent of lynx habitat within the six Northern Rockies Forests containing the features essential to the conservation of the lynx, which provides a net conservation benefit for lynx.

Both the conservation agreement and the proposed plan amendments that follow from the agreement address the single most important threat identified at time of listing: the inadequacy of existing regulatory mechanisms. The conservation agreement and proposed amendments ensure that adequate habitat of sufficient quality is available

to support the long-term persistence of lynx populations on these seven forests and would provide for connectivity between adjacent lynx populations in Canada or the United States. The conservation agreement and proposed amendments address the primary threat to the lynx (inadequate regulatory measures) by addressing the major adverse impacts of Federal land management on lynx, as well as several other potential impacts or influences that do not rise to the level of a threat to the lynx. Thus, special management or protection pursuant to 3(5)(A) of the Act is not required for the seven national forests identified in Table 3. Because Federal lands within these seven national forests do not meet the definition of critical habitat pursuant to section 3(5)(A) of the Act, we have not included these lands in the final critical habitat designation.

#### Lands With Management Plans That Conserve Lynx

Several management plans have been amended or revised to incorporate the lynx management strategy as outlined in the Lynx Conservation Assessment and Strategy (LCAS) (Ruediger *et al.* 2000, entire) or comparable programs. The USFS, Bureau of Land Management (BLM), National Park Service (NPS), and the Service developed the LCAS using the best available science specifically to provide a consistent and effective approach to conserve lynx and lynx habitat on Federal lands (Ruediger *et al.* 2000, p. 1). The overall goals of the LCAS were to recommend lynx conservation measures, to provide a basis for reviewing the adequacy of USFS and BLM land and resource management plans with regard to lynx conservation, and to facilitate conferencing and consultation under section 7 of the Act. The LCAS identifies an inclusive list of 17 potential risk factors for lynx or lynx habitat that may be addressed under programs, practices, and activities within the authority and jurisdiction of Federal land management agencies. By addressing these potential risk factors, the Federal agencies could address the primary threat identified in the 2000 listing rule for the lynx, that of inadequate regulatory mechanisms to protect lynx on Federal lands.

The risks identified in the LCAS are based on effects to either individual lynx, lynx populations, both, or lynx habitat. Potential risk factors the LCAS addresses that may affect lynx productivity include: timber management, wildland fire management, recreation, forest/backcountry roads and trails, livestock

grazing, and other human developments (Ruediger *et al.* 2000, pp. 2–2–2–15). Potential risk factors the LCAS addresses that may affect lynx mortality include: trapping, predator control, incidental or illegal shooting, competition and predation as influenced by human activities and highways (Ruediger *et al.* 2000, pp. 2–15–2–17). Potential risk factors the LCAS addresses that may affect lynx movement include: highways, railroads and utility corridors, land ownership pattern, and ski areas and large resorts (Ruediger *et al.* 2000, pp. 2–17–2–19). Other potential large-scale risk factors for lynx addressed by the LCAS include: fragmentation and degradation of lynx refugia, lynx movement and dispersal across shrub-steppe habitats and habitat degradation by non-native and invasive plant species (Ruediger *et al.* 2000, pp. 2–19–2–21).

The LCAS ensures the appropriate mosaic of habitat is provided for lynx on Federal lands. To facilitate use of the LCAS in project planning and allow for the assessment of the potential effects of a project on an individual lynx, the USFS and BLM delineated Lynx Analysis Units (LAUs). The scale of an LAU approximates the size of area used by an individual lynx (25 to 50 mi<sup>2</sup> (65 to 130 km<sup>2</sup>)) (Ruediger *et al.* 2000, p. 7-3). The LCAS recognizes that LAUs will likely encompass both lynx habitat and other areas (*e.g.*, lakes, low elevation ponderosa pine (*Pinus ponderosa*) forest, and alpine tundra). The LCAS provides habitat-related standards to address potential risks include: (1) If more than 30 percent of lynx habitat in an LAU is currently in unsuitable condition, no further reduction of suitable condition shall occur as a result of vegetation management activities by Federal agencies; (2) within an LAU, maintain denning habitat in patches generally larger than 5 acres, comprising at least 10 percent of lynx habitat; (3) maintain habitat connectivity within and between LAUs; (4) management actions (*e.g.*, timber sales, salvage sales) shall not change more than 15 percent of lynx habitat within an LAU to an unsuitable condition within a 10-year period; (5) pre-commercial thinning will only be allowed when stands no longer provide snowshoe hare habitat; (6) on Federal lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU (Ruediger *et al.* 2000, pp. 7–3–7–9).

Lynx conservation depends on supporting boreal forest landscapes of sufficient size to encompass the temporal and spatial changes in habitat and snowshoe hare populations to

support interbreeding lynx populations or metapopulations over time. We have determined that management plans that incorporate the LCAS provide adequate management or protection for lynx because they meet the three criteria identified above. Specifically—(1) the management plans have been finalized and incorporate the provisions of the LCAS, which provides the best scientifically-based conservation measures known for lynx at this time; at a minimum, the incorporation of the LCAS conservation measures to address risk factors affecting lynx productivity into a management plan provides adequate management and protection for lynx and features essential to the conservation of lynx; (2) where Federal agencies and non-federal entities (including Tribes) have amended or revised their management plans to incorporate provisions of the LCAS, these provisions become the management direction for that particular land base; conservation measures in the LCAS are designed to be implemented at the programmatic and project level scale; and (3) the land management entities have incorporated provisions of the LCAS in order to provide for the conservation of the lynx; the conservation measures in the LCAS are intended to conserve lynx and to reduce or eliminate adverse effects from the spectrum of management activities on Federal lands (or other lands where the conservation measures are applied). At this time, there is no other scientifically-based land management guidance available for lynx; these management plans are in effect until future plan revisions or plan amendments supercede the current plans.

We evaluated areas to determine if they meet the definition of critical habitat by (1) containing physical or biological features essential to the conservation of the lynx, and (2) if the essential features may require special management or protection. We determined that these lands did contain features essential to the conservation of the lynx. However, based on the provisions in the LCAS beneficial to the lynx, we determined that the essential features on lands covered by management programs or plans that have been revised or amended to adopt the LCAS do not require special management or protection and, therefore, these lands do not meet the definition of critical habitat pursuant to section 3(5)(A) of the Act. These lands, described below, are not included in the designation:

### Superior National Forest

The Superior National Forest located in northeastern Minnesota has revised its Land and Resource Management Plan (LRMP) to include specific measures to conserve lynx based on the LCAS (Ruediger *et al.* 2000, entire; USFS 2004a, Appendix E; USFS 2004b, p. 16; Service 2004, p. 2). Much of the boreal forest habitat in northeastern Minnesota is found on Superior National Forest (Service 2004, p. 28), and a large proportion of the recent lynx records in Minnesota have been detected on the Superior National Forest (Moen *et al.* 2004, p. 10; Minnesota DNR 2005 Web page). The revised LRMP went through stakeholder meetings, section 7 consultation with the Service, and public review. The LRMP will guide day-to-day management decisions for the next 15 years, whereupon the LRMP will again undergo revision (USFS 2004a section 1, pp. 2 and 4).

The Superior LRMP adopted the standards, guidelines, and objectives of the LCAS (Ruediger *et al.* 2000, entire; McAllister 2002, entire) that the USFS determined were appropriate and relevant to lynx conservation in Minnesota, in consultation with the Service. To remove redundancies with other management direction, the LRMP excluded certain LCAS standards, guidelines, and objectives and reclassified some to increase their potential to benefit lynx, to avoid confusion with terms found elsewhere in the LRMP, and to allow for management flexibility that would not compromise lynx conservation. In addition, it designated the Boundary Waters Canoe and Wilderness Area as a Lynx Refugium, in which natural processes will be the predominant determinant of lynx habitat conditions with some active management that would be “compatible with wilderness values” (USFS 2004a, Appendix E, p. 5 and section 3, p. 58).

The Superior National Forest has delineated Lynx Analysis Units (LAUs) within which it applies the lynx conservation measures prescribed in the LRMP. The LAUs are the smallest landscape scale analysis units upon which direct, indirect, and cumulative effects analyses for lynx will be performed (Ruediger *et al.* 2000, p. 7–2; USFS 2004a Appendix E, p. 4). They encompass lynx habitat (on all ownerships) within the administrative unit that has been mapped (in coordination with adjacent management agencies and the Service) using specific criteria to identify appropriate vegetation and environmental

conditions (U.S. Forest Service 2004a Appendix E, p. 4).

On the basis of the conservation benefits afforded the lynx from the measures in the approved, revised LRMP and the definition of critical habitat contained in section 3(5)(A) of the Act, we have not included those lands encompassed in LAUs mapped by the Superior National Forest or delineated by the Forest as a Lynx Refugium in this designation because we have determined that special management or protection of these lands and the features essential to the conservation of the lynx is not required. The Superior National Forest manages its lands within the LAUs with measures to conserve lynx and features essential to its conservation and takes into consideration habitat conditions for lynx throughout a LAU regardless of land ownership. Therefore, the numerous small non-federal inholdings within the proclamation boundary of the Forest were removed from the designation because, although such lands may support lynx habitat, they have a negligible influence on the features essential to the conservation of the lynx compared to the significant role of the Superior National Forest lands.

Based on public comments and information received following the publication of the proposed designation, we coordinated with the Superior National Forest on those lands that remained within the proposed designation. We reevaluated these lands relative to the LRMP for the Superior National Forest to determine if the essential features within these areas were being managed for and protected under the plan. Based on our discussions with the National Forest and a further review of the plan, we have determined that the features within these lands are being adequately managed and protected for lynx conservation, and therefore do not meet the definition of critical habitat pursuant to section 3(5)(A) of the Act. As such, these lands have been removed from the final designation of critical habitat for the lynx.

### Garnet Resource Area, Bureau of Land Management

The BLM's Garnet Resource Management plan has been amended to incorporate all provisions of the LCAS (BLM 2003, entire; Wilson 2004, entire). The Garnet Resource Area supports blocks of boreal forest that currently support lynx populations on the southern edge of the Northern Rockies Unit. The amendment to the management plan went through public review and consultation with us under

section 7 of the Act; a finding of no significant impact was issued by BLM in 2004 (BLM 2003, entire; Wilson 2004, entire).

On the basis of the conservation benefits afforded the lynx and features essential to its conservation from the measures in the amended Garnet Resource Management Plan and the definition of critical habitat contained in section 3(5)(A) of the Act, we have not included those lands that are within the boundaries of the approved Garnet Resource Management Plan in this designation of critical habitat for the lynx. These lands, and essential features thereon, are being adequately managed and protected for lynx and, as a result, do not meet the definition of critical habitat pursuant to section 3(5)(A) of the Act. Because the BLM already manages these lands, and features thereon, consistent with lynx conservation, we have determined that no special management or protection pursuant to section 3(5)(A) of the Act is required.

#### Flathead Indian Reservation

The tribal lands in the Northern Rockies unit (portions of the Flathead Indian Reservation) are managed by the Confederated Salish and Kootenai Tribes (CSKT) under their Forest Management Plan that incorporates the provisions of the LCAS (CSKT 2000, p. 285). On the basis of the conservation benefits afforded the lynx from the measures in the CSKT's Forest Management Plan and the definition of critical habitat contained in section 3(5)(A) of the Act, we have not included lands that are within the boundaries of the Flathead Indian Reservation in this designation of critical habitat for the lynx. These lands, and physical or biological features essential to the conservation of the lynx thereon, are being adequately managed and protected for lynx and, as a result, do not meet the definition of critical habitat. Because the Tribes already manage these lands, and essential features thereon, consistent with lynx conservation, no special management or protection pursuant to section 3(5)(A) of the Act is required.

#### Spokane District, Bureau of Land Management

Small portions of lands administered by the BLM's Spokane District are encompassed in the area containing features essential to the conservation of the lynx in the North Cascades unit in Washington. The BLM Spokane District Resource Management Plan was modified in 2003 to incorporate all of the provisions of the LCAS through

what is called "Resource Management Plan Maintenance" (BLM 2003, entire).

On the basis of the conservation benefits afforded the lynx and the physical and biological features essential to its conservation from the measures in the approved Spokane District Resource Management Plan Maintenance and the definition of critical habitat contained in section 3(5)(A) of the Act, we have not included those lands that are within the boundaries of the BLM's Spokane District Resource Management Plan in this designation of critical habitat for the lynx. The BLM already manages this area, and essential features thereon, consistent with lynx conservation; therefore, special management or protection pursuant to 3(5)(A) of the Act is not required.

In summary, we find that these management plans protect essential lynx features and habitat and provide appropriate management to provide for the conservation of lynx and features essential to its conservation. The management plans have been finalized and incorporate the provisions of the LCAS, which, as described above provides the best, scientifically-based conservation measures for lynx and features essential to its conservation known at this time. Federal land and resource management plans provide the overarching direction under which Federal lands are managed until future plan revisions or plan amendments supercede the current plans.

The conservation measures in the LCAS are intended to conserve lynx and to reduce or eliminate adverse effects from the spectrum of management activities on Federal lands (or other lands where the conservation measures are applied). At this time, it constitutes the best and only scientifically-based land management guidance available for lynx. By not including areas in the designation that are already being managed for lynx conservation, land managers are encouraged to proactively institute lynx conservation measures and reduce administrative effort and costs associated with engaging in consultations for critical habitat pursuant to section 7 of the Act.

#### Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from

critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Secretary is afforded broad discretion and the Congressional record is clear that in making a determination under this section, the Secretary has discretion regarding which factors will be used and how much weight will be given to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that we considered relevant to the benefits of including and excluding lands. The text of these sections applies to all lands that we have excluded from this designation.

#### Conservation Partnerships on Non-Federal Lands

Most federally listed species in the United States will not recover without the cooperation of non-federal landowners. More than 60 percent of the United States is privately owned (National Wilderness Institute 1995) and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse *et al.* 2002). Stein *et al.* (1995) found that only about 12 percent of listed species were found almost exclusively on Federal lands (that is, 90 to 100 percent of their known occurrences restricted to Federal lands) and that 50 percent of federally listed species are not known to occur on Federal lands at all.

Given the distribution of listed species with respect to land ownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-federal landowners (Wilcove and Chen 1998; Crouse *et al.* 2002; James 2002). Building partnerships and promoting voluntary cooperation of landowners is essential to understanding the status of species on non-federal lands and is necessary to implement recovery actions such as reintroducing listed species,

habitat restoration, and habitat protection.

Many non-Federal landowners derive satisfaction in contributing to endangered species recovery. The Service promotes these private-sector efforts through the Four Cs philosophy—conservation through communication, consultation, and cooperation. This philosophy is evident in Service programs such as Habitat Conservation Plans, Safe Harbor Agreements, Candidate Conservation Agreements, Candidate Conservation Agreements with Assurances, and conservation challenge cost-share. Many private landowners, however, are wary of the possible consequences of encouraging endangered species to their property, and there is mounting evidence that some regulatory actions by the Federal Government, while well-intentioned and required by law, under certain circumstances can have unintended negative consequences for the conservation of species on private lands (Wilcove *et al.* 1996; Bean 2002; Conner and Mathews 2002; James 2002; Koch 2002; Brook *et al.* 2003). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability, resulting in anti-conservation incentives because maintaining habitats that harbor endangered species represents a risk to future economic opportunities (Main *et al.* 1999; Brook *et al.* 2003).

The purpose of designating critical habitat is to contribute to the conservation of threatened and endangered species and the ecosystems upon which they depend. The outcome of the designation, triggering regulatory requirements for actions funded, authorized, or carried out by Federal agencies under section 7 of the Act, can sometimes be counterproductive to its intended purpose on non-federal lands. According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main *et al.* 1999; Bean 2002; Brook *et al.* 2003). The magnitude of this negative outcome is greatly amplified in situations where active management measures (such as reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002).

The Service believes that the judicious use of excluding specific areas of non-federally owned lands from critical habitat designations can

contribute to species recovery and provide a superior level of conservation than critical habitat alone. The Department of the Interior's Four Cs philosophy—conservation through communication, consultation, and cooperation—is the foundation for developing the tools of conservation. These tools include conservation grants, funding for Partners for Fish and Wildlife Program, the Coastal Program, and cooperative-conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program provide assistance to private land owners in their voluntary efforts to protect threatened, imperiled, and endangered species, including the development and implementation of Habitat Conservation Plans.

Conservation agreements with non-Federal landowners (such as Habitat Conservation Plans (HCPs), contractual conservation agreements, easements, and stakeholder-negotiated State regulations) enhance species conservation by extending species protections beyond those available through section 7 consultations. In the past decade, we have encouraged non-Federal landowners to enter into conservation agreements, based on a view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through coercive methods (61 FR 63854; December 2, 1996).

#### **Educational Benefits of Critical Habitat**

A benefit of including lands in critical habitat is that the designation of critical habitat serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. The designation can help focus and promote conservation efforts by other parties by clearly delineating areas of high conservation value for the lynx. In general, the educational benefit of a critical habitat designation always exists, although in some cases it may be redundant with other educational effects. For example, Federal land management plans have significant public input and may largely duplicate the educational benefit of a critical habitat designation. This benefit is closely related to a second, more indirect benefit: that designation of critical habitat would inform State agencies and local governments about areas that could be conserved under State laws or local ordinances.

#### **General Principles of Section 7 Consultations Used in the 4(b)(2) Balancing Process**

The most direct, and potentially largest, regulatory benefit of critical habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they are not likely to destroy or adversely modify critical habitat. There are two limitations to this regulatory effect. First, it only applies where a Federal action or “nexus” occurs—if there is no Federal nexus, designation itself does not restrict actions that destroy or adversely modify critical habitat. Second, it only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to ensure those areas that contain the physical and biological features essential to the conservation of the species or unoccupied areas that are essential to the conservation of the species are not eroded. Critical habitat designation alone, however, does not require specific steps toward recovery.

Once consultation under section 7 of the Act is triggered, the process may conclude informally when the Service concurs in writing that the proposed Federal action is not likely to adversely affect the listed species or its critical habitat. However, if the Service determines through informal consultation that adverse impacts are likely to occur, then formal consultation would be initiated. Formal consultation concludes with a biological opinion issued by the Service on whether the proposed Federal action is likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat, with separate analyses being made under both the jeopardy and the adverse modification standards. For critical habitat, a biological opinion that concludes in a determination of no destruction or adverse modification may contain discretionary conservation recommendations to minimize adverse effects to primary constituent elements, but it would not contain any mandatory reasonable and prudent measures or terms and conditions. Mandatory reasonable and prudent alternatives to the proposed Federal action would only be issued when the biological opinion results in a jeopardy or adverse modification conclusion.

We also note that for 30 years prior to the Ninth Circuit Court's decision in *Gifford Pinchot*, the Service equated the jeopardy standard with the standard for destruction or adverse modification of critical habitat. The Court ruled that the

Service could no longer equate the two standards and that adverse modification evaluations require consideration of impacts on the recovery of species. Thus, under the *Gifford Pinchot* decision, critical habitat designations may provide greater benefits to the recovery of a species. However, we believe the conservation achieved through implementing Federal land management plans, habitat conservation plans (HCPs), or other habitat management plans is typically greater than what would be achieved through multiple site-by-site, project-by-project, section 7 consultations involving consideration of critical habitat. This is especially true for lynx populations that require differing successional stages of habitat juxtaposed appropriately throughout large landscapes. The majority of lynx habitat is located on large land ownerships, including Federal, State, county, conservation organization, and private corporate forestlands, capable of influencing forest management at a landscape-scale. Management plans or other commitments on these large land holdings can commit resources to implement long-term management and protection to particular habitat for at least one, and possibly other, listed or sensitive species. Section 7 consultations only commit Federal agencies to prevent adverse modification to critical habitat caused by the particular project; they are not committed to provide conservation or long-term benefits to areas not affected by the proposed project. Thus, in most cases, an HCP or management plan which considers enhancement or recovery as the management standard will always provide as much or more benefit than a consultation for critical habitat designation conducted under the standards required by the Ninth Circuit in the *Gifford Pinchot* decision.

#### **Benefits of Excluding Lands From Critical Habitat With Management Plans or HCPs**

The benefits of excluding lands with management plans or HCPs from critical habitat designation include relieving landowners, communities, counties, and States of any additional regulatory burden that might be imposed by a critical habitat designation even if it is only the administrative burden of confirming no harm to the critical habitat. Most conservation plans take many years to develop and, upon completion, are, in most cases, consistent with the recovery objectives for listed species that are covered within the plan area. In fact, designating critical habitat in areas covered by a

pending conservation plan or HCP could result in the loss of some species' benefits if participants abandon the planning process, in part because of the strength of the perceived additional regulatory compliance that such designation would entail. For example, the time and cost of regulatory compliance for a critical habitat designation do not have to be quantified for the regulated public to perceive them as additional Federal regulatory burden sufficient to discourage continued participation in plans targeting listed species' conservation.

A related benefit of excluding lands within management plans from critical habitat designation is the unhindered, continued ability to seek new partnerships with future plan participants including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. If lands within approved management plan areas are designated as critical habitat, it would likely have a negative effect on our ability to establish new partnerships to develop these plans, particularly plans that address landscape-level conservation of species and habitats. For example, by excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future.

Furthermore, a Federal land management plan or an HCP application must itself be consulted upon. Such a consultation would review the effects of all activities covered by the management plan or HCP which might adversely impact the species under a jeopardy standard, including possibly significant habitat modification (see definition of "harm" at 50 CFR 17.3), even without the critical habitat designation. Similarly, land management plans on private lands paid for by Federal landowner incentive programs (e.g., NRCS Healthy Forest Reserve Program, USFWS Landowner Incentive Program) must also be consulted upon. In addition, Federal actions not covered by the management plan or HCP in areas occupied by listed species would still require consultation under section 7 of the Act even absent a critical habitat designation and would be reviewed for possibly significant habitat modification in accordance with the definition of harm referenced above.

After consideration under section 4(b)(2) of the Act, specific lands have been excluded from the designation of critical habitat for the lynx. A detailed analysis of our exclusion of these lands under section 4(b)(2) of the Act by

critical habitat unit is provided in the paragraphs that follow.

#### **Relationship of Critical Habitat to Tribal Lands**

Tribal lands included in the proposed designation were those of the Houlton Band of Maliseet Indians, Aroostook Band of Micmac Indians, Passamaquoddy Tribe, and Penobscot Indian Nation in the Maine unit and Grand Portage Indian Reservation and Vermillion Lake Indian Reservation in the Minnesota unit. The amount of tribal lands proposed was relatively small in size (totaling approximately 223 km<sup>2</sup> (86 mi<sup>2</sup>) in the Maine unit and 192 km<sup>2</sup> (74 mi<sup>2</sup>) in the Minnesota unit). As previously mentioned, we contacted and met with a number of tribes to discuss the proposed designation and we also received comments from tribes requesting that their lands not be designated as critical habitat because of their sovereign rights, in addition to concerns about economic impacts and the effect on their ability to manage natural resources.

#### **Benefits of Inclusion**

The benefit of including these tribal lands in critical habitat for the lynx is low. The lands are fairly small in size relative to the large landscape required to sustain the lynx population in these areas. The larger landscape in Maine is lands managed for commercial forestry, and in Minnesota the larger landscape is managed by the Superior National Forest that has revised its forest plan to address the needs for lynx. Therefore, although these tribal lands support lynx habitat and the PCE, they have a minor role in lynx conservation compared to the commercial forestlands in Maine and Superior National Forest in Minnesota.

#### **Benefits of Exclusion**

In accordance with Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997); the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951); Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments;" and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2), we believe that fish, wildlife, and other natural resources on tribal lands are better managed under tribal authorities, policies, and programs than through Federal regulation wherever possible and practicable. Such designation is often viewed by tribes as



an unwanted intrusion into tribal self governance, thus compromising the government-to-government relationship essential to achieving our mutual goals of managing for healthy ecosystems upon which the viability of threatened and endangered species populations depend.

For example, through Federal grant programs, the Passamaquoddy Tribe is conducting surveys and habitat models for lynx and snowshoe hare, the Houlton Band of Maliseet Indians is conducting lynx surveys and lynx habitat is being assessed on Grand Portage Reservation lands. Information from these efforts will be used to inform management plans or strategies to promote the conservation of lynx on Tribal lands. Additionally, we received general comments from Tribes and/or authorities representing the natural resource interests of Tribes voicing their commitment to ensuring that lynx remain a viable part of the ecosystem.

#### *Benefits of Exclusion Outweigh Benefits of Inclusion*

We believe that conservation of lynx can be achieved off of Tribal lands within the critical habitat unit and on tribal lands with the cooperation of Tribes. Given the importance of our government-to-government relationship with Tribes, the benefit of maintaining our commitment to the Executive Order by excluding these lands outweighs the benefit of including them in critical habitat. Therefore, Tribal lands have not been designated as critical habitat pursuant to section 4(b)(2) of the Act.

#### **Unit 1 (Maine)**

##### *Lands Managed for Commercial Forestry*

This category of specific properties include private lands on which timber is grown, harvested, and processed for wood and wood fiber for the manufacture of pulp and paper, and the production of solid and engineered wood products. These lands are generally large in size and comprise the majority of the lands in Maine we considered for inclusion in our critical habitat designation.

##### **Benefits of Inclusion**

As previously discussed, we believe that there may be some education benefits to designating critical habitat for lynx on lands managed for commercial forestry. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed; through the public review process for the critical habitat

proposal; information provided to the public from Maine Department of Inland Fisheries and Wildlife, North Maine Woods Association; information provided from University of Maine Department of Wildlife Ecology, Maine Cooperative Fish and Wildlife Research Unit, and the Maine Cooperative Forestry Research Unit; the Service's numerous contacts with Federal agencies that may have projects in northern Maine; the State-listing process in 2006; and extensive media coverage on the status of the Canada lynx in Maine.

Commercial forest lands in northern Maine are considered to be occupied by the lynx. Detailed habitat maps and habitat models (Hoving *et al.* 2004, p. 290, 2005, p. 747 Robinson 2006 pp. 107–119) and a lynx occurrence database maintained by Maine Inland Fisheries and Wildlife provide the Service with the most recent interpretation of the distribution of lynx and their habitat. For Federal actions, consultation under section 7 of the Act is required if an action may affect the lynx or its habitat. Accordingly, there are few opportunities for the Service to influence silviculture in Maine through Section 7 of the Act, especially at a landscape scale. Forest management and associated activities require no Federal permits, and Federal funding is rarely employed on private forest lands. Since listing the lynx in 2000, the Service has consulted on fewer than 50 projects in Maine under Section 7 of the Act. Consultation has been limited primarily to small woodlot owners and tribes applying for Federal assistance. All consultations were concluded informally with fewer than five requiring any measures to conserve lynx. Most have been small projects (less than 6 ha (15 ac)), are located on small ownerships (less than 202 ha (500 ac)), and were located on the periphery of the lynx range in Maine. Given the historically low level of consultations, the opportunity to address forestry practices on private lands managed for commercial forestry, especially at a large landscape scale, through consultation is limited.

Accordingly, we believe the benefits of inclusion are few. Because of our limited opportunities to consult under section 7 we believe we will achieve greater benefit from the ongoing management and partnerships than from the regulation that results from designating critical habitat on private lands in northern Maine. Maintaining a strong working relationship with both the State and private landowners is essential to ensuring continued voluntary management that conserves

lynx, past and continuing voluntary forest management has been and continues to be beneficial to lynx in Maine. Timber salvaging associated with the eastern spruce budworm (*Choristoneura fumiferana*) outbreak of 1972 to 1986 resulted in hundreds of thousands of acres of clearcuts, which created contiguous stands of regenerating spruce-fir as large as 2,023 ha (5,000 ac) across much of northern Maine. These areas are now in an advanced stage of regeneration and support high hare densities (Fuller and Harrison 2005, p. 716; Homyack *et al.* 2006; Robinson 2006, p. 9), which is sustaining the lynx population (Hoving *et al.* 2004, pp. 291–292; Fuller 2006, pp. 36–47; Robinson 2006, p. 122). Spruce budworm salvage created extensive mosaics of habitat within Maine that support lynx and features essential to the conservation of the lynx, such as structure for denning and dense understories within boreal forest able to support snowshoe hares and lynx. These optimal habitat conditions will persist for the next 10 to 15 years until the regenerating clearcut stands mature to an age and structure (~30 years old) when they will no longer provide optimal habitat for hares and lynx.

Forest practices in Maine generally are favorable to lynx. For example, many of the timber lands in Maine considered for inclusion in lynx critical habitat are managed under forest certification programs (e.g., Sustainable Forestry Initiative (SFI), Forest Stewardship Council (FSC)) that require members to maintain coarse woody debris, which provides lynx denning habitat (although denning habitat does not seem to be limited in northern Maine). Land managers participating in these programs are audited regularly for compliance (for example, Plum Creek is SFI certified and was audited as recently as 2005).

The Huber Resource Corporation provided maps of current and future lynx habitat based on the Maine Forest Products Council analysis (see below). Currently, 36 percent of their 102,291 ha (252,766 ac) of forest ownership is in large blocks of early successional softwoods (spruce and fir). J. D. Irving concluded there would be no significant change in the spatial arrangement or amount of habitat in the next 10 to 20 years (Gilbert 2006, p2). Plum Creek provided information to the Service demonstrating that they have four lynx habitat units (47,000, 43,000, 33,000, and 30,000 acres) that contain optimal mid-regeneration conditions for lynx in the Moosehead Lake area.

The Maine Forest Products Council provided a comprehensive lynx

landscape-level habitat analysis of current and future lynx habitat (20 years hence) for their member landowners and landowner representative lands, which comprise the majority of the proposed critical habitat. The map suggests that about 404,686 ha (1 million ac) of lynx habitat currently exists in Maine and 404,686 ha (1 million ac) of future lynx habitat will be present 20 years hence and widely distributed on the landscape. Lynx habitat models for Maine (Hoving *et al.* 2004, pp. 291–292, 2005; Robinson 2006, p. 122) corroborate the fact that current habitat is prevalent and widely distributed. We agree that lynx habitat in Maine is abundant and widespread, and acknowledge that this is largely due to management for timber harvest.

Most of the lands we considered for inclusion as lynx critical habitat are in unorganized townships and within the jurisdiction of the Maine Land Use Regulation Commission. Most of the area is zoned for commercial forestry, and development is sparse except for a few organized towns around the periphery of the proposed critical habitat.

The Maine Land Use Regulation Commission and Plum Creek have recently shared plans with the Service for a proposed rezoning of about 172,396 ha (426,000 ac) in the Moosehead Lake area to implement a concept plan to develop 975 new residential lots, resorts, and other facilities covering approximately 1,497 ha (3,700 ac). Plum Creek is offering mitigation in the form of a 162,684-ha (402,000-ac) Conservation Framework, including a 108,860-ha (269,000-ac) conservation easement (some donated) and 21,044 ha (52,000 ac) sale to conservation groups. This is the largest development project in Maine's history. The Maine Land Use Regulation Commission will make a determination on the concept plan in 2007. The proposed developments occur within the areas we considered for inclusion as lynx critical habitat and include areas that are known to be occupied by lynx. Major developments such as this proposal usually require Clean Water Act permits, which provide a Federal nexus for a consultation under section 7 of the Act. Any Federal actions related to development of these lands that may affect the lynx will undergo consultation between with the Service and Federal permitting agencies. We believe the current scale of the development project can be effectively evaluated through section 7 consultation in a way to protect lynx and conserve its habitat with or without a critical habitat designation because the

project is not likely to be at a scale that would adversely modify the critical habitat.

The area of the proposed lynx critical habitat is highly roaded with small, single-lane, gravel or dirt logging roads. Road density typically varies from 50–120 km of road/100km<sup>2</sup> township (31–75 mi of road/38mi<sup>2</sup> township). Lynx road mortality (12 animals) documented in Maine has occurred on logging roads (n = 9) and paved public roads (n = 3) (MDIFW, unpub. data). Most logging road mortality occurred on two-lane haul roads where higher traffic volume and speed would occur. We do not know if mortality is from forestry-related or visitor vehicles because these roads are open to the public. Road complexes on commercial forest land have largely been built out. It is unlikely that a substantial number of new woods roads will be built in northwestern Maine. It is also unlikely that roads will be upgraded or paved into two-lane high speed roads that would increase risk to lynx. Road building for forest purposes is exempt from Clean Water Act wetland permits and thus, there is no Federal nexus to address forest roads through Section 7. However, we do not anticipate an increase in forest road building in northern Maine in the foreseeable future.

#### Benefits of Exclusion

Forest landowners in Maine expressed concerns about the stigma, “shadow-effect,” or uncertainty associated with imposing a new far-reaching Federal regulation on their lands. Until recently, the traditional owners of large tracts of forest lands in northern Maine were forest products companies with their own mills and their own timberland base to supply fiber. Landowners expressed concerns that another Federal regulation over their land would add a layer of uncertainty that could affect land valuation, deter investors, or cause hardships through costly litigation.

In addition, the current environment of timber land sales and mill closures in Maine has led to efforts to conserve the north Maine woods. Conservation groups have purchased conservation easements on hundreds of thousands of acres of forestland. These easements are negotiated with private timber companies to assure protection from development and promote sustainable forestry and wildlife management. Most of these easements have required significant Federal funds, especially from Forest Legacy and the North American Wetland Conservation Act. Currently, about 809,371 ha (2 million ac) of the of 2.6 million ha (6.4 million

ac) in Maine considered for inclusion in lynx critical habitat are under permanent easements, with several hundred thousand acres more under negotiation. Easement negotiations are often tenuous, and several landowners expressed concern that designation of critical habitat may create a Federal nexus that would discourage landowners against accepting Federal funding and participating in future easement negotiations. Maine Inland Fisheries and Wildlife expressed concerns that if these landscape-level conservation efforts fail in the future because of this perception, conservation of lynx will be set back. Landowners expressed sincere concerns about the uncertainty of legal actions related to a critical habitat designation and how this would affect their interest in entering into future conservation easement agreements.

The primary benefit of excluding corporate forest lands from critical habitat is preserving the partnerships that have been and will be developed to conserve habitat for the lynx. The Service believes that partnerships and cooperative conservation have proved to be beneficial in Maine and are the most effective means of achieving conservation for the lynx on private lands. Partnerships have many benefits, including access by researchers and State and Federal biologists to private lands; cooperation with industry in funding research, monitoring, and management; and development of forest management plans on private lands.

Maine forest industry has demonstrated cooperation by providing access to State and Federal wildlife agencies. For example, since 1999, Clayton Lake Woodlands, Seven Islands, and J. D. Irving Limited provided access and housing to Maine Inland Fisheries and Wildlife biologists to conduct radio-telemetry studies of lynx. Many landowners have granted permission for State and Federal biologists to conduct winter snow tracking surveys for lynx. Many landowners have granted permission for University of Maine graduate students to access lands to conduct studies and assess snowshoe hare populations. Landowners have also provided access to sensitive corporate data on forest stands to help State and Federal agencies with lynx and hare research. Landowners have suggested that future access to lands and data may be limited if critical habitat is designated, which would preclude us from getting valuable information on lynx distribution in Maine and which would be counter to lynx recovery efforts.

Since 1975, corporate landowners have pooled research funds to support research to improve forest management through the University of Maine's Cooperative Forestry Research Unit. The Unit currently consists of 27 members, including most of the large corporate landowners within the Maine critical habitat unit. Since 2000, the effect of forest management on snowshoe hares and lynx has been a research priority. The Unit has joined the Service in funding six graduate students studying forest management, hares, and lynx. Many landowners are also members of the National Council for Air and Stream Improvement, Inc., which has also provided substantial funding support for the aforementioned research projects. The Maine Cooperative Fish and Wildlife Research Unit and University of Maine Department of Wildlife Ecology have been instrumental in conducting this research. These partnerships have allowed open dialogue and productive information sharing between landowners and Federal, State, and university biologists. Landowners have expressed concerns that designating critical habitat could jeopardize these valuable partnerships. These partnerships are essential for conserving lynx in Maine.

The Maine Forest Products Council has represented Maine forest industry for over 40 years and currently has about 400 member companies. Collectively, their members own 2.2 million ha (5.4 million ac) (~84 percent) of the land we considered for inclusion in lynx critical habitat within Maine. Fourteen of their members own greater than 20,234 ha (50,000 ac) and will have a significant role in conserving current and future lynx habitat in Maine. The Council received unanimous backing from their members to act on their behalf and submitted comments to the Service regarding the critical habitat proposal. Included in their comments was a proposal in the form of a *Conservation Strategy for the Canada Lynx in Maine*. The strategy would provide a 10-year commitment to forestry practices that maintain and enhance lynx habitat by regenerating spruce fir forests, conducting a landscape assessment of lynx habitat every 5 years, continuing to support lynx and hare research, and meeting with the State and Federal wildlife agencies annually to share information and discuss research priorities. The specifics of this conservation strategy were provided to the Service in a draft Memorandum of Understanding. While the MOU has not yet been finalized it

demonstrates the Council's commitment to continued lynx conservation. According to the Strategy, at the end of the 10-year period, the Council, Service, and State would conduct a joint evaluation to determine if the lynx strategy should be renewed for another 10-year period.

Maine forest industry's *Conservation Strategy for the Canada Lynx in Maine* offers a framework for the Service to work in partnership with forest landowners to achieve recovery for the lynx and provides substantial benefits over what can be achieved through adverse modification standards of critical habitat through section 7 of the Act. The Strategy provides planning and cooperation at a landscape level meaningful to lynx; allows the opportunity for coordination and planning for lynx habitat across multiple land ownerships; allows researchers access to corporate landscape-level habitat information; and promotes continued funding support by corporate landowners for habitat-related research that will inform future conservation planning. Most importantly, the Strategy establishes a framework for landowners, Federal and State governments and university researchers to work together to protect and enhance lynx habitat in Maine while preserving and enhancing Maine's working forest. The Service acknowledges that forest practices have created the abundant lynx habitat in Maine today and can continue to do so in the future.

Individual landowner lynx management plans are important for the recovery of lynx in the Northeast. The Service's recovery outline for the Canada lynx notes that "timber harvest and associated activities on non-federal lands exert the most influence to lynx habitat in the Northeast and have created the favorable conditions that currently exist for lynx and snowshoe hares in northern Maine" (Service 2005, p. 9), and that one of the most important recovery actions needed is to "establish management commitments in core areas that will provide for adequate quality and quantity of habitat such that there is a reasonable expectation that persistent lynx populations can be supported \* \* \* for at least the next 100 years." The Maine Forest Products Council offers a memorandum of understanding or agreement whereby the Service "will work with and provide incentives to the Council and its members to develop forest management plans whose objectives are to promote the strategy and preserve Maine's working forest environment." Our lynx recovery outline (Service 2005, p. 12)

provides a recovery action "on non-Federal core areas, develop and implement best management practices and long-term management agreements for lynx with key State, private, and/or tribal forest managers."

In July, 2006, the Natural Resources Conservation Service (NRCS) and Service offered financial incentives to landowners to prepare lynx management plans through the pilot Healthy Forest Reserve Program. NRCS successfully enrolled three landowners in the Maine Unit, the Passamaquoddy Tribe, the Maine Chapter of the Nature Conservancy, and the Forest Society of Maine acting on behalf of a conservation easement holder for the West Branch Project, which will result in lynx management plans on 201,533 ha (498,000 ac), or about 8 percent of the lands considered for inclusion in lynx critical habitat in Maine. Other large landowners in Maine attended the Healthy Forest information meetings and expressed interest in these kinds of programs. The Service believes this demonstrates the interest and willingness of landowners to step down the Maine Forest Products Council Strategy to individual landowner plans, especially if Healthy Forest or other cooperative conservation incentives are provided in the future.

The genuine commitment of Maine forest industry to develop individual and collective lynx management plans represents a significant benefit of excluding corporate forest landowners from the critical habitat. The discussion of lynx habitat planning has been greatly accelerated during our development of this critical habitat rule. Throughout the process, the Maine forest industry has been open and forthright about its commitments and its offer of a strategy, and the memorandum of understanding documents this commitment. These commitments may be off the table if critical habitat is designated, which would be a major setback to lynx recovery. The Service believes lynx forest management plans can conserve lynx at the landscape scales meaningful to lynx and will be far more effective at achieving the conservation essential to the recovery of lynx than small-scale site-by-site evaluations of adverse modification in Section 7 consultations.

We have evaluated the recent past and current forestry practices for lands managed for commercial forestry within the proposed designation of critical habitat for the lynx in Maine and found that they have produced a mosaic of lands important for lynx conservation. We also recognize that it is unlikely federal section 7 consultations could

achieve the same conservation and recovery benefits provided by these voluntary activities. Based on this evaluation, we find that the benefits of excluding these specific lands include: maintaining relationships with existing partners, encouraging new partnerships with landowners, and avoiding potential costly regulations having limited conservation benefits. The preservation and/or initiation of partnerships is essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding lands managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding lands managed for commercial forestry from the final designation because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares, and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052), the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We have concluded that the threats to the lynx in Maine have been ameliorated through voluntary actions of the Maine Forest Products Council. In addition, the proposed *Conservation Strategy for the Canada Lynx in Maine*, which covers more than 85 percent of the lands containing features essential to the conservation of the lynx in Maine demonstrates the Council's voluntary commitment extends into the future. Subsequent lynx forest management plans with individual landowners will further strengthen landscape-level habitat protection. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, material provided on various Web sites, and other information provided to the public in Maine. We also believe that there would be few, if any, little additional conservation benefit realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal

actions are uncommon. Therefore, on the basis of the above discussion and the conservation measures provided the lynx and features essential to its conservation through the Maine Forest Products Council *Conservation Strategy for the Canada Lynx in Maine*, we do not believe that the exclusion of lands managed for commercial forestry in this unit would result in the extinction of the lynx.

#### State Lands

State land ownership (about 225,441 ha (557,077 ac), or about 9 percent of the lands considered for inclusion in lynx critical habitat in Maine) is comprised of Baxter State Park (83,137 ha (205,436 ac)), Maine Department of Conservation Bureau of Parks and Lands (140,295 ha (346,676 ac)), and Maine Inland Fisheries and Wildlife management areas (2,009 ha (4,965 ac)). A small part of Baxter State Park, the Scientific Forest Management Area, and many Bureau of Parks and Public Lands lots are managed for sustainable forestry. Collectively, these lands comprise a small part of the landscape occupied by lynx.

#### Benefits of Inclusion

We believe that there may be some education benefits to designating critical habitat for lynx on State-owned lands. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for considering the lynx for State listing in 2006, information provided from Maine Department of Inland Fisheries and Wildlife, and research being conducted through the University of Maine's Department of Wildlife Ecology, Cooperative Fish and Wildlife Research Unit, and Maine Cooperative Forestry Research Unit, and through the publication, and subsequent outreach and public hearings for the proposed critical habitat.

Other benefits of including State lands in critical habitat are low. Lands under State ownership are considered to be occupied by the lynx. As such, Federal actions require consultation under section 7 of the Act if the action may affect the lynx or its habitat. On these State lands, it is uncommon for there to be a Federal action that triggers consultation under section 7 of the Act, therefore little benefit would be realized through section 7 consultation if such lands were included in the designation. Since the lynx was listed in 2000, there have been no consultations on Federal expenditures or permits on State-owned lands in the area of Maine considered

for inclusion in critical habitat.

Therefore, if there are few consultations, critical habitat would not be of much benefit to lynx.

Further, the benefits of inclusion are low because of appropriate current management of State lands. We believe the benefits of including State lands managed for commercial forestry in the designation are low due to recent past and current silviculture practices on managed State lands that are similar to those on adjacent corporate forest land that have created mosaics of habitat supporting lynx and features essential to the conservation of the lynx, such as structure for denning and dense understories within boreal forest able to support snowshoe hares and lynx. At this time we have no specific evidence to suggest that large-scale changes in these practices are planned on State lands. Other State lands (the majority of Baxter State Park, Allagash Wilderness Waterway, and other small State parks) are managed in a "forever wild" status. Given that lynx in Maine respond to young forests regenerating from a disturbance, there is little opportunity to manage for lynx in State parks unless natural disturbance regimes—fire, insect infestation, wind throw—create habitat conditions favorable to lynx. We are aware of no State policies or management in State parks that would adversely modify critical habitat.

The Maine Bureau of Parks and Lands has an Integrated Resource Policy (<http://www.maine.gov/doc/parks/programs/planning/>) that requires 10-year management plans on public reserved and nonreserved lands that require "exemplary land management practices, including silvicultural, wildlife, and recreation practices as a demonstration of State policies governing forested and related types of lands." These plans require identification of important wildlife areas, including a policy to work with the Service and Maine Inland Fisheries and Wildlife to conserve biodiversity and habitat for federally State-listed endangered and threatened species. Plans for the Seboomook and Flagstaff units and Allagash Wilderness Waterway (all considered for inclusion as critical habitat) are under development. The Service is unaware whether the plans being drafted incorporate habitat planning for lynx, but we believe the State will incorporate habitat planning for lynx per their policies.

#### Benefits of Exclusion

The primary benefit of excluding State lands from critical habitat is the partnerships that have and will be

developed to conserve habitat for the lynx. The Service believes that partnerships and cooperative conservation are the most effective means of achieving conservation for the lynx on private lands. Partnerships have many benefits, including funding research, monitoring, and management; and development of forest management. The State of Maine has been an excellent partner for lynx conservation.

#### The Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2), we have determined that the benefits of excluding State lands in the Maine Unit as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe there would be greater benefit from excluding State lands because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052), the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We believe that the threats to the lynx have been ameliorated because of the Maine Bureau of Parks and Lands policy to manage parks for multiple-use, including managing habitat for endangered species, and requiring the development of management plans. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, material provided on various Web sites and other information provided to the public in Maine. We also believe that there would be little additional conservation benefit realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are uncommon. Therefore, on the basis of the above discussion and the conservation measures required by the policies of the Maine Bureau of Parks and Lands, we do not believe that the exclusion of State lands in this unit would result in the extinction of the lynx.

#### *Lands Owned by the Nature Conservancy*

Lands owned by The Nature Conservancy (over 80,937 ha (200,000 ac), or about 3 percent of the lands considered for inclusion in critical habitat within Maine) are comprised of

the St. John River unit, Katahdin Forest, and Debsconeag Lakes unit. In addition, The Nature Conservancy is the conservation easement holder on several hundred thousand acres of private commercial forest land within the area proposed as critical habitat in Maine.

#### Benefits of Inclusion

We believe that there may be some education benefits to designating critical habitat for lynx on lands owned by The Nature Conservancy in the Maine Unit. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for considering the lynx for State listing in 2006, information provided from Maine Department of Inland Fisheries and Wildlife, and research being conducted through the University of Maine's Department of Wildlife Ecology, Cooperative Fish and Wildlife Research Unit, and Maine Cooperative Forestry Research Unit, and through the publication, and subsequent outreach and public hearings for the proposed critical habitat.

Lands owned by The Nature Conservancy are considered to be occupied by the lynx. For Federal actions, consultation under Section 7 of the Act is required if the action may affect the lynx or its habitat. On these lands, it is uncommon for there to be a Federal action that triggers consultation under section 7 of the Act, therefore little benefit would be realized through section 7 consultation if such lands were included in the designation. Since the lynx was listed in 2000, there have been no consultations on Federal expenditures or permits on The Nature Conservancy lands in Maine. Therefore the benefit of including The Nature Conservancy lands is low because there is seldom a Federal action on these lands.

The benefit of inclusion of The Nature Conservancy lands is also low because of ongoing management of the lands for conservation. The Nature Conservancy is committed to continued forest management on their largest 72,843-ha (180,000-ac) ownership in the upper St. John River region. The Conservancy's management plan includes plans for maintaining lynx habitat. The Conservancy recently enrolled its St. John River lands in the Healthy Forest Reserve Program and is committed to developing a forest management plan using Canada lynx as an umbrella species for young forest species and pine marten as an umbrella species for mature forest species. The plan will incorporate lynx management

guidelines and will be developed with the cooperation of The Forest Society of Maine, University of Maine Department of Wildlife Ecology, Maine Inland Fisheries and Wildlife, and the Service. We believe the benefits of including managed lands in the designation are low because the recent past and current forestry practices on Conservancy lands are similar to those on adjacent corporate forest land, which have created mosaics of habitat supporting lynx and features essential to the conservation of the lynx, such as structure for denning and dense understories within boreal forest able to support snowshoe hares and lynx. At this time we have no specific evidence to suggest that large-scale changes in these practices are planned. Other Conservancy lands (the majority of Debsconeag Lakes Unit, 16,592 ha (41,000 ac) will be managed in a "forever wild" status as ecological reserves. We are aware of no Conservancy policies or management in their ecological reserve lands that would adversely modify critical habitat.

#### Benefits of Exclusion

The Conservancy has policies regarding biodiversity and endangered species conservation ([www.nature.org](http://www.nature.org)) that compliment the State and Service missions to conserve endangered wildlife. The Service has no reservations about the quality of lynx habitat conservation plans that The Nature Conservancy will develop for their lands in Maine. Therefore, the Service believes that its ongoing partnership with The Nature Conservancy will be improved from the exclusion of these lands from critical habitat.

#### Benefits of Exclusion Outweigh Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding The Nature Conservancy lands in Maine as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As discussed above, we believe there would be greater benefit from excluding The Nature Conservancy lands because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052), the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We believe that the threats to the

lynx have been ameliorated because of The Nature Conservancy policies to manage their lands for biodiversity and endangered species. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, material provided on various Web sites and other information provided to the public in Maine. We also believe there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are uncommon. Therefore, on the basis of the above discussion and the conservation measures required by the policies of The Nature Conservancy, we do not believe that the exclusion of Conservancy lands in this unit would result in the extinction of the lynx.

#### *Small Landowners and Lands Not Managed for Commercial Forestry*

Lands owned by small landowners and lands not managed for commercial forestry (about 100,128 ha (247,421 ac), or about 4 percent of the area considered for inclusion in lynx critical habitat in Maine) are primarily comprised of small woodlot owners near the towns of Ashland, Millinocket, Eagle Lake, Smyrna Mills, and Greenville. Such lands also include National Park Service lands consisting of a linear buffer along the Appalachian Trail to its northern terminus at Mt. Katahdin. Collectively, these lands comprise a small percentage of the area occupied by lynx.

#### Benefits of Inclusion

We believe that there may be some education benefits to designating critical habitat for lynx on lands owned by small landowners and other lands not managed for commercial forestry in Maine. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for considering the lynx for State listing in 2006, information provided from Maine Department of Inland Fisheries and Wildlife, and research being conducted through the University of Maine's Department of Wildlife Ecology, Cooperative Fish and Wildlife Research Unit, and Maine Cooperative Forestry Research Unit, and through the publication, and subsequent outreach and public hearings for the proposed critical habitat.

Lands owned by small landowners and lands not managed for commercial forestry are considered to be occupied by the lynx. As such, for Federal actions, consultation under section 7 of the Act is required if those actions may affect the lynx or its habitat. On these lands it is uncommon for there to be a Federal action that triggers consultation under section 7 of the Act, therefore little benefit would be realized through section 7 consultation if such lands were included in the designation. Maine averages about 10 to 15 consultations per year that involve Canada lynx. Most of these lynx consultations in Maine have involved small landowners (less than 121 ha (300 ac) ownerships) requesting Federal assistance through the Natural Resource Conservation Service's Wildlife Habitat Incentive Program or Maine Forest Service's Woodwise Program (U.S. Forest Service funding). Nearly all of these forestry projects are small (less than 4 ha (10 ac)), occur around the periphery of the Maine Unit, and have no adverse effects on lynx because of the small scale and nature of the projects. Because actions on these lands rarely, if ever, adversely affect lynx, designation of critical habitat would be of little conservation value.

We believe the benefits of including these lands in the designation are low because such lands are fairly small in size relative to the large landscape required by an individual lynx to support its home range. Therefore, although such lands may support lynx habitat, they have a negligible influence on the features essential to the conservation of the lynx, especially compared to the significant role of the corporate lands managed for commercial forestry.

#### Benefits of Exclusion

We have evaluated lands owned by small landowners and lands not managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining relationships with landowners and a reduction of potential regulations having limited conservation benefits. Partnerships are essential for the conservation and recovery of lynx, in part because they are crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed

above, various Web sites, and through public notice-and-comment procedures.

#### **Benefits of Exclusion Outweigh Benefits of Inclusion**

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding small landowners and lands not managed for forestry in Maine as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As discussed above, we believe there would be greater benefit from excluding these lands because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052), the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, material provided on various Web sites and other information provided to the public in Maine. We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are uncommon and because of the small scale, adverse modification is very unlikely. Therefore, on the basis of the above discussion, we do not believe that the exclusion of small landowners and lands not managed for forestry in this unit would result in the extinction of the lynx.

#### **Unit 2 (Minnesota)**

##### *Lands Managed for Commercial Forestry*

This category of specific properties includes private, county, and State lands on which timber is grown, harvested, and processed for wood and wood fiber for the manufacture of pulp and paper, and the production of solid and engineered wood products. These lands constitute a relatively large land base within the area considered for inclusion as critical habitat, and are generally adjacent to the much larger Superior National Forest, which supports the majority of lands containing features essential to the conservation of the lynx in Minnesota.

### Benefits of Inclusion

As previously discussed, we believe there may be some education benefits to designating critical habitat for lynx on lands managed for commercial forestry. However, we believe there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for revision and implementation of the Superior National Forest Land and Resource Management Plan, information provided by Minnesota Department of Natural Resources ([http://www.dnr.state.mn.us/ecological\\_services/nhnrp/research/lynx\\_sightings.html](http://www.dnr.state.mn.us/ecological_services/nhnrp/research/lynx_sightings.html)), research being conducted by the University of Minnesota's Natural Resources Research Institute (<http://www.nrri.umn.edu/lynx/>), and through the publication of the proposed critical habitat and associated outreach and public hearings.

Lands under this category are considered to be occupied by the lynx. As such, for Federal actions, consultation under section 7 of the Act is required if those actions may affect the lynx or its habitat. Some forestry practices may affect the lynx or its habitat. However, the ability to address such forestry practices through consultation is limited because, since the lynx has been listed, instances where a Federal action occurred on non-Federal lands managed for commercial forestry that would trigger consultation under section 7 of the Act have been infrequent, therefore, the benefit of including these lands is low.

Further, we believe the benefits of including these lands in the designation are low because of recent past and current forestry practices that have created a mosaic of differing successional boreal forest stages within this unit. Some components of this mosaic support lynx and features essential to the conservation of the lynx, including dense understories within boreal forest able to support snowshoe hares and lynx and structure for denning. At this time we have no specific evidence to suggest that large-scale changes in these practices are planned. Thus, because of the limited Federal nexuses and the recent past and current forestry practices, we believe there would be little benefit obtained from including these lands in the designation.

Many of the lands managed for commercial forestry are enrolled in the Sustainable Forestry Initiative (SFI) program. The SFI program, which is described in more detail above in response to comment number 8, has a

number of principles and objectives that generally pertain to overall forest health. The SFI objective that is most pertinent to lynx conservation is "To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand- and landscape-level measures that promote habitat diversity and the conservation of forest plants and animals, including aquatic fauna." As discussed above, recent past and current forestry practices have created a mosaic of differing successional boreal forest stages within this unit that supports lynx and features essential to the conservation of the lynx; SFI participation has provided some oversight for these land management activities. Thus, because SFI participation has partially been responsible for the forestry practices that have created the extensive mosaic of lynx habitat in this unit, we believe there would be little benefit from including these lands in the designation.

Finally, the primary factor causing the lynx to be listed was inadequate regulatory mechanisms on Federal lands. In Minnesota, the Superior National Forest lands are the most important for the conservation of lynx because they support the majority of lynx occurrence records and lynx habitat containing the features essential to the conservation of lynx. Since the lynx was listed, the Superior National Forest has revised its Land and Resource Management Plan to incorporate conservation measures for lynx (see 3(5)(A) discussion above). Because factors on non-Federal lands played a subordinate role in the listing and conservation of the lynx compared to National Forest and BLM lands, we believe there is little benefit of including non-Federal lands managed for commercial forestry in the designation.

### Benefits of Exclusion

We have evaluated the recent past and current practices for lands managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining relationships with existing partners and encouraging the potential establishment of new partnerships with public and private landowners. Partnerships are essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. For example,

these landowners allow lynx researchers access to their lands, without access to these lands, research and monitoring that inform our understanding of lynx ecology would be severely restricted. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above and outreach.

### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding lands managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding lands managed for commercial forestry from the final designation because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052) the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We believe that within this unit the threats to the lynx have been ameliorated because the Superior National Forest, which supports the majority of lands containing features essential to the conservation of the lynx in this unit, has revised its LRMP to provide conservation measures for the lynx. Thus, while non-Federal lands managed for commercial forestry provide habitat for lynx, they only supplement those lynx management efforts on Superior National Forest. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education. The public may become aware of the location and importance of lynx habitat via the information provided from ongoing research and monitoring, information provided to the public (e.g., on various Web sites), and from the publication of the proposed critical habitat and associated outreach and public hearings. We also have concluded that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are uncommon. Therefore, on the basis of the above discussion and the conservation

measures provided the lynx and features essential to its conservation through the Superior National Forest, we do not believe that the exclusion of lands managed for commercial forestry in this unit would result in the extinction of the lynx.

#### *Small Landowners and Lands Not Managed for Commercial Forestry*

This category of specific properties includes private, county, municipal, National Monument, and State lands that have a myriad of uses and individually are small compared to the large spatial scale required by lynx. Cumulatively, these lands constitute a limited land base within the proposed critical habitat unit compared to the Superior National Forest lands and are scattered throughout the proposed unit.

#### Benefits of Inclusion

As previously discussed, we believe that there may be some educational benefits to designating critical habitat for lynx on non-Federal lands not managed for commercial forestry. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx as a result of ongoing outreach conducted by the Service and its partners.

Lands under this category are considered to be occupied by the lynx. As such, for actions having a Federal nexus, consultation under section 7 of the Act is required if a Federal action may affect the lynx or its habitat. Federal actions having adverse effects on lynx on these lands may be addressed through a section 7 consultation. Since the lynx was listed the opportunity to address such actions through consultation has been limited because there is infrequently a Federal nexus on these lands. Therefore, the benefit of designation of these lands as critical habitat is low because there are few instances in which a Federal nexus occurs.

Further, we believe the benefits of including these lands in the designation are low because such lands are fairly small in size relative to the large landscape required by an individual lynx to support its home range and they are scattered throughout the proposed unit. Therefore, although such lands may support lynx habitat, they have a minor influence on the features essential to the conservation of the lynx, especially compared to the significant role of the Superior National Forest lands. Thus, due to the negligible effect of these small properties and lands not managed for commercial forestry on the features essential to the conservation of

lynx and the infrequency of Federal actions we believe that there would be little benefit obtained from including these lands in the designation.

#### Benefits of Exclusion

We have evaluated lands not managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining the potential to develop relationships with landowners. Partnerships are essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. These landowners allow researchers access to their lands, without which, research and monitoring would be hampered. As previously discussed, we believe that there may be some educational benefits to designating critical habitat for lynx on small properties and lands not managed for commercial forestry. However, we believe that there is already substantial awareness of the lynx and conservation issues related to the lynx as a result of ongoing outreach conducted by the Service and its partners.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding lands not managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding these smaller properties and lands not managed for commercial forestry from the final designation because it will maintain relationships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052) the primary threat to the lynx was the lack of Federal land management plan guidance to conserve lynx. We believe that within this unit the threats to the lynx have been ameliorated because the Superior National Forest, which supports the majority of lands containing features essential to the conservation of the lynx in this unit, has revised its LRMP to provide conservation measures for the lynx. Smaller land holdings that are not managed for commercial forestry have a minor influence on the features

essential to the conservation of lynx compared to the National Forest lands. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring. We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal nexuses are uncommon. Therefore, on the basis of the above discussion and the conservation measures provided the lynx and features essential to its conservation through the Superior National Forest, we do not believe that the exclusion of lands not managed for commercial forestry in this unit would result in the extinction of the lynx.

#### **Unit 3 (Northern Rockies—(Montana and Idaho))**

##### *Montana Department of Natural Resources and Conservation Forested Trust Land Habitat Conservation Plan (MDNRC HCP)*

The MDNRC HCP encompasses 241,108 ac (377 mi<sup>2</sup>) (97,573 ha/976 km<sup>2</sup>) of State Forested Trust lands distributed throughout northwestern, southwestern and central Montana. Lynx have been documented to occur throughout these areas, primarily in the northwest and southwest areas where MDNRC has delineated Lynx Management Areas (LMAs). A portion of these lands occur within the area proposed as critical habitat. Although the MDNRC HCP is not yet final, the lynx conservation strategy portion of the HCP has undergone technical and public review (Pierce 2005, entire); MDNRC entered into an agreement with the Service wherein the MDNRC committed to develop an HCP using Congressionally appropriated funding (USFWS and MDNRC 2000, entire, Clinch 2002, entire; Wilson 2003, entire); scoping for an Environmental Impact Statement (EIS) is complete and development of the EIS is underway (81 FR 22412 Apr 28, 2003; Parametrix 2004, entire). The incidental take permit for the HCP is anticipated to be issued in 2008 (O'Herron 2006).

The MDNRC HCP contains measures to minimize and mitigate potential impacts to the lynx and its habitat from forest management activities. The primary components for minimizing and mitigation include: minimizing potential for disturbance to known active den sites; mapping winter foraging habitat, young foraging habitat,



other suitable habitat and temporary non-suitable habitat; providing stand structure or attributes that offer habitat for prey species, particularly in winter; retaining coarse woody debris and other denning attributes on managed sites; limiting conversion of suitable lynx habitat to temporary non-suitable habitat per decade in key geographic areas of notable importance for lynx (LMAs); ensuring that adequate amounts of foraging habitat are maintained in defined LMAs; providing for habitat connectivity on the landscape where vegetation and ownership patterns allow; providing assurances for maintenance of suitable lynx habitat on DNRC scattered lands outside LMAs (MDNRC 2005, entire). All of these measures provide the features essential to the conservation of the lynx.

The MDNRC HCP and its accompanying Implementing Agreement, which will delineate the responsibilities of the Service and MDNRC for the implementation of the HCP, are designed to minimize the impacts of forest management activities on lynx and to manage for habitat elements important for lynx and prey that contribute to their landscape-scale occurrence.

Furthermore, MDNRC has had lynx habitat management guidance in place since 1998, prior to lynx being listed under the Act. In 2003, MDNRC developed a mapping protocol for identifying lynx habitat on State lands and adopted administrative rules for lynx conservation.

#### Benefits of Inclusion

We expect the MDNRC HCP to provide substantial protection of features essential to the conservation of lynx on MDNRC Forested Trust Lands and to provide a greater level of management for the lynx on these State lands than would designation of critical habitat on State lands. Habitat management provisions for lynx are already in place on MDNRC lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities that would exceed the MDNRC HCP and its implementing agreement upon approval. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not believe that including these lands in the final designation would lead to any changes to actions on the MDNRC Forested Trust lands to avoid destroying or adversely modifying that habitat.

On these State lands it is uncommon for there to be a Federal action that triggers consultation under section 7 of the Act, therefore little benefit would be realized through section 7 consultation if such lands were included in the designation. The MDNRC HCP will undergo section 7 consultation prior to permit issuance.

As previously discussed, we believe there may be some education benefits to designating critical habitat for lynx on MDNRC Forested Trust lands. However, we believe there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for the MDNRC HCP and the USFS Northern Rockies Lynx Amendment, lynx and snowshoe hare research being conducted by the USFS Rocky Mountain Research Station and the University of Montana, surveys conducted by Montana Fish, Wildlife and Parks, and independent researchers, various Web sites and through the publication of the proposed critical habitat and associated outreach and public hearings.

#### Benefits of Exclusion

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the MDNRC, particularly in the development of the MDNRC HCP, which provides for long-term lynx conservation. Comments received from MDNRC explain that the agency has a long history of lynx conservation efforts and, therefore, designation on MDNRC lands is unnecessary and inappropriate (Sexton 2006, p. 2). The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above, various Web sites, and through public notice-and-comment procedures. For these reasons, we believe that designating critical habitat has little benefit in areas covered by the MDNRC HCP.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding MDNRC Forested Trust Lands as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding MDNRC Forested Trust Lands from the final designation because it will preserve our

partnership with MDNRC. The provisions of the MDNRC HCP are expected to provide greater benefits to the features essential to the conservation of lynx than would be provided under a critical habitat designation.

We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal nexuses are uncommon. Therefore, on the basis of the above discussion and the habitat conservation measures that are already being provided to the lynx on MDNRC lands and the detailed minimization and mitigation measures of the pending MDNRC HCP that will further address the features essential to conservation of the lynx, we do not believe that the exclusion of MDNRC lands would result in the extinction of the lynx.

#### *Lands Managed for Commercial Forestry*

This category of specific properties includes private lands on which timber is grown, harvested, and processed for wood and wood fiber for the manufacture of pulp and paper, and the production of solid and engineered wood products. These lands constitute a substantially smaller land base than that of the National Forests (Flathead National Forest, Helena National Forest, Idaho Panhandle National Forests, Kootenai National Forest, Lewis and Clark National Forest, and the Lolo National Forest) that constitute the vast majority of habitat containing the features essential to the conservation of lynx in this unit. The owner of the majority of private lands managed for commercial forestry in this unit is Plum Creek Timber Company.

#### Benefits of Inclusion

As previously discussed, we believe there may be some education benefits to designating critical habitat for lynx on lands managed for commercial forestry in Montana. However, we believe there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the USFS Northern Rockies Lynx Amendment, lynx and snowshoe hare research being conducted by the USFS Rocky Mountain Research Station and the University of Montana, surveys conducted by Montana Fish, Wildlife and Parks and independent researchers, various Web sites and through the publication of the proposed critical habitat and associated outreach and public hearings. For example, Plum Creek Timber Company is clearly aware

of issues related to the Act, in general, and lynx, in particular, based on comments the company submitted on the critical habitat proposal (Kraft 2006a, b, entire).

Lands under this category are considered to be occupied by the lynx. As such, for Federal actions, consultation under section 7 of the Act is required if those actions may affect the lynx or its habitat. Some forestry practices may affect the lynx or its habitat, however, the ability to address such forestry practices through consultation is limited because, since the lynx has been listed, it is uncommon for there to be a Federal action on private lands managed for commercial forestry that would trigger consultation under section 7 of the Act. Because there is a low likelihood of projects involving a Federal action on these lands, the benefits of inclusion are low.

Many of the lands managed for commercial forestry are enrolled in the SFI program. The SFI program, which is described in more detail above in response to comment number 8, has a number of principles and objectives that generally pertain to overall forest health. The SFI objective most pertinent to lynx conservation is "To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand- and landscape-level measures that promote habitat diversity and the conservation of forest plants and animals, including aquatic fauna." As discussed above, lands managed for commercial forestry in this unit support lynx and lynx habitat. SFI participation has provided some oversight for these land management activities. Plum Creek Timber Company is a participant in the SFI program. Plum Creek notes its structure retention program that provides lynx denning habitat as an example of its compliance with the above objective (Kraft 2006a, p. 7 technical comments). Additionally, Plum Creek cites implementation examples for Montana that include its continued experimentation with alternative precommercial thinning methods to enhance snowshoe hare habitat (based on university research) and distributing a biodiversity and threatened species brochure to over 500 small private landowners to broaden the practice of sustainable forestry, including management practices to benefit lynx (Kraft 2006a p. 7, technical comments).

Thus, because SFI participation has partially been responsible for the forestry practices that have created the extensive mosaic of lynx habitat in this unit, we believe there would be little

benefit from including these lands in the designation.

Finally, the primary factor causing the lynx to be listed was inadequate regulatory mechanisms on Federal lands. In the Northern Rockies, six National Forests and BLM lands provide an extensive mosaic of boreal forest supporting different successional stages that provide features essential to the conservation of lynx. These Forests are in the process of amending their LRMPs to incorporate conservation measures for lynx (see 3(5)(A) discussion above). Currently, these six Forests adhere to a conservation agreement that ensures that these Forests will continue to be managed for lynx conservation by: (1) continuing to manage these lands consistent with the LCAS until their LRMPs are revised, which we have determined largely avoids adverse effects to lynx in the interim period (Service 2000, p. 47); and (2) ensuring sufficient conservation of the lynx and its habitat upon revision of LRMPs (see Application of Section 3(5)(A) of the Endangered Species Act discussion, above). Because factors on non-federal lands played a subordinate role in the listing and conservation of the lynx compared to National Forest and BLM lands, we believe there is little benefit of including non-federal lands managed for commercial forestry in the designation.

#### Benefits of Exclusion

We have evaluated lands managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining relationships with existing partners and encouraging the establishment of new partnerships with landowners and a reduction of potential regulations having limited conservation benefits. Partnerships are essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. For example, these landowners, especially Plum Creek, allow researchers access to their lands; without access to these lands, research and monitoring that informs our understanding of lynx ecology would be severely restricted. Additionally, Plum Creek provides funding and other resources to enable lynx and snowshoe hare research. Plum Creek Timber Company has demonstrated its willingness to be a partner in the conservation of fish and wildlife through its Native Fish Habitat Conservation Plan and from being a signatory to the Swan Valley Grizzly

Bear Conservation Agreement, both of which provide some ancillary benefits to lynx. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above, various Web sites and through public notice-and-comment procedures.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding lands managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding lands managed for commercial forestry from the final designation because it will maintain or encourage partnerships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052) the primary threat to the lynx was the inadequacy of regulatory mechanisms on Federal lands. National Forest lands support the vast majority of lynx habitat and the features essential to the conservation of lynx in the Northern Rockies. We believe that within this unit the threats to the lynx have been ameliorated because the USFS adheres to a conservation agreement that ensures that these Forests will continue to be managed for lynx conservation. Thus, while non-federal lands managed for commercial forestry provide habitat for lynx, they only supplement those lynx habitat management efforts on National Forest lands. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, materials provided on various Web sites, through the public review process for the MDNRC HCP and the USFS Northern Rockies Lynx Amendment, and through the publication of the proposed critical habitat and associated outreach and public hearings. As described above, based on Plum Creek Timber Company's comments on the critical habitat proposal, the company is aware of issues related to the Act, in general, and lynx, in particular. We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under

section 7 of the Act because Federal actions that would trigger consultation are uncommon. Therefore, on the basis of the above discussion and the conservation measures provided the lynx and features essential to its conservation through the National Forests, we do not believe that the exclusion of lands managed for commercial forestry in this unit would result in the extinction of the lynx.

#### *Small Landowners and Lands Not Managed for Commercial Forestry*

This category of specific properties includes private, county, municipal government, conservation lands (e.g., The Nature Conservancy), Federal (except National Forest or National Park lands) and State lands that have a myriad of uses and individually are small-scale compared to the large spatial scale required by lynx. Cumulatively, these lands constitute an extremely limited land base within the proposed critical habitat unit compared to the amount of lynx habitat provided by seven National Forests, and are scattered throughout the proposed unit.

#### Benefits of Inclusion

As previously discussed, we believe that there may be some education benefits to designating critical habitat for lynx on lands not managed for commercial forestry. However, we believe that these is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed, through the public review process for the MDNRC HCP and the USFS Northern Rockies Lynx Amendment, lynx and snowshoe hare research being conducted by the USFS Rocky Mountain Research Station and the University of Montana, surveys conducted by Montana Fish, Wildlife and Parks, and independent researchers, various Web sites (e.g., <http://www.nature.org/wherework/northamerica/states/montana/press/press2654.html>) and through the publication of the proposed critical habitat and associated outreach and public hearings.

Lands under this category are considered to be occupied by the lynx. As such, for Federal actions, consultation under section 7 of the Act is required if a Federal action may affect the lynx or its habitat. While actions having adverse affects for lynx may be addressed through a consultation, since the lynx was listed the opportunity to address such actions through consultation has been extremely limited because there have been few consultations under section 7 of the Act for actions on these lands because there

is rarely a Federal action. Therefore the benefits of inclusion are low because of the few instances in which projects are federally funded, permitted or approved on these lands.

Further, we believe the benefits of including these lands in the designation are low because such lands are fairly small in size relative to the large landscape required by an individual lynx to support its home range and these lands are scattered throughout the proposed unit. Therefore, although such lands may support lynx habitat, they have a negligible influence on the features essential to the conservation of the lynx, especially compared to the significant role of the National Forest lands. Thus, due to the negligible affect of these small properties on the features essential to the conservation of lynx and the infrequency of Federal actions we believe that there would be little benefit obtained from including these lands in the designation.

#### Benefits of Exclusion

We have evaluated lands not managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining relationships with landowners and a reduction of potential regulations having limited conservation benefits. Partnerships are essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above, various Web sites, and through public notice-and-comment procedures.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding lands not managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding these smaller properties from the final designation because it will maintain relationships and allow for continued access to these lands for research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24,

2000; 65 FR 16052) the primary threat to the lynx was the inadequacy of regulatory mechanisms on Federal lands. National Forest lands support the vast majority of lynx habitat and the features essential to the conservation of lynx in the Northern Rockies. We believe that within this unit the threats to the lynx have been ameliorated because the USFS adheres to a conservation agreement that ensures that these Forests will continue to be managed for lynx conservation. These smaller properties that are not managed for commercial forestry have a minor influence on the features essential to the conservation of lynx compared to that of the National Forest lands. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, materials provided on various Web sites, through the public review process for the MDNRC HCP and the USFS Northern Rockies Lynx Amendment, and through the publication of the proposed critical habitat and associated outreach and public hearings. We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are rare. Therefore, on the basis of the above discussion and the conservation measures provided the lynx and features essential to its conservation through the National Forests, we do not believe that the exclusion of lands not managed for commercial forestry in this unit would result in the extinction of the lynx.

#### **Unit 4 (North Cascades (Washington))**

##### *Washington Department of Natural Resources Lynx Habitat Management Plan for DNR-Managed Lands (WDNR HMP)*

The WDNR HMP encompasses 126,212 ac (197 mi<sup>2</sup>) (51,076 ha/511 km<sup>2</sup>) of WDNR-managed lands distributed throughout northcentral and northeastern Washington in areas delineated as Lynx Management Zones in the Washington state recovery plan for the lynx (Stinson 2001, p. 39; WDNR 2006 pp. 5–13 (January draft)). The WDNR HMP was finalized in 2006 and is a revision of the lynx plan that WDNR has been implementing since 1996 (WDNR 1996, entire). The 1996 plan was developed as a substitute for a species-specific critical habitat designation required by Washington Forest Practices rules in response to the

lynx being State-listed as threatened (WDNR 2006, p. 5). The 2006 HMP provides further provisions to avoid the incidental take of lynx (Martin 2002, entire; WDNR 2006, p. 6). Washington DNR is committed to following the HMP until 2076 or until the lynx is delisted, whichever is shorter (WDNR 2006, p. 6).

The WDNR HMP contains measures to guide WDNR in creating and preserving quality lynx habitat through its forest management activities. The objectives and strategies of the HMP are developed for multiple planning scales (Ecoprovince and Ecodivision, Lynx Management Zone, Lynx Analysis Unit (LAU), and Ecological community) and include: encouraging genetic integrity at the species level by preventing bottlenecks between British Columbia and Washington by limiting size and shape of temporary non-habitat along the border and maintaining major routes of dispersal between British Columbia and Washington; maintaining connectivity between subpopulations by maintaining dispersal routes between and within zones and arranging timber harvest activities that result in temporary non-habitat patches among watersheds so that connectivity is maintained within each zone; maintaining the integrity of requisite habitat types within individual home ranges by maintaining connectivity between and integrity within home ranges used by individuals and/or family groups; and providing a diversity of successional stages within each LAU and connecting denning sites and foraging sites with forested cover without isolating them with open areas by prolonging the persistence of snowshoe hare habitat and retaining coarse woody debris for denning sites (WDNR 2006, p. 29). The plan identifies specific guidelines to achieve the objectives and strategies at each scale; it also describes how WDNR will monitor and evaluate the implementation and effectiveness of the HMP (WDNR 2006, pp. 29–63).

#### Benefits of Inclusion

We expect the WDNR HMP to provide substantial protection of features essential to the conservation of lynx on WDNR managed lands and to provide a greater level of management for the lynx on these State lands than would designation of critical habitat on State lands. The measures contained in the WDNR HMP exceed any measures that may result from critical habitat designation because the HMP provides lynx-specific objectives and strategies for different planning scales, provides guidelines to meet the objectives and monitoring to evaluate the

implementation and effectiveness of the HMP. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including these areas in the final designation would lead to any changes to actions on the WDNR managed lands to avoid destroying or adversely modifying that habitat, and therefore the benefits of inclusion are low. Furthermore, on these State lands it is uncommon for there to be a Federal action that triggers consultation under section 7 of the Act, therefore little benefit would be realized through section 7 consultation if such lands were included in the designation.

As previously discussed, we believe there may be some education benefits to designating critical habitat for lynx on WDNR managed lands. However, we believe there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed both under the Act and Washington State law; through the public review process for the WDNR HMP, Washington's Lynx Recovery Plan and the revision of the Okanogan-Wenatchee Forest Plan; lynx and snowshoe hare research being conducted by the USFS Pacific Northwest Research Station, Washington State University, University of Washington, and the University of Montana, among others; surveys conducted by Washington Department of Fish and Wildlife and the USFS; State of Washington Web sites, among others (e.g., <http://wdfw.wa.gov/wlm/diversty/soc/recovery/lynx/lynx.htm>, [www.dnr.wa.gov/htdocs/amp/sepa/lynx/1\\_toc.pdf](http://www.dnr.wa.gov/htdocs/amp/sepa/lynx/1_toc.pdf)) and through the publication of the proposed critical habitat and associated outreach and public hearings.

#### Benefits of Exclusion

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the WDNR over the years of development and implementation of both this 2006 HMP and the original 1996 lynx plan, which provides for long-term lynx conservation. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above, various Web sites, and through public notice-and-comment procedures. For these reasons, we believe that designating critical habitat has little benefit on State lands covered by the WDNR HMP.

#### Benefits of Exclusion Outweigh Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding WDNR managed lands as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding WDNR managed lands from the final designation because it will preserve our partnership with WDNR. The provisions of the WDNR HMP will provide greater benefits to the features essential to the conservation of lynx than would be provided under a critical habitat designation.

We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are uncommon. Therefore, on the basis of the above discussion and the habitat conservation measures that are already being provided to the lynx on WDNR managed lands under the WDNR HMP that address the features essential to conservation of the lynx, we do not believe that the exclusion of WDNR HMP lands would result in the extinction of the lynx.

#### *Small Landowners and Lands Not Managed for Commercial Forestry*

This category of specific properties includes private lands that are small-scale compared to the large spatial scale required by lynx. Cumulatively, these lands constitute an extremely limited land base within the proposed critical habitat unit compared to the amount of lynx habitat provided by the Okanogan-Wenatchee National Forest, and are scattered fragments within the proposed unit.

#### Benefits of Inclusion

As previously discussed, we believe that there may be some education benefits to designating critical habitat for lynx on small private lands not managed for commercial forestry. However, we believe there is already substantial awareness of the lynx and conservation issues related to the lynx through the species being listed both under the Act and Washington State law; through the public review process for the WDNR HMP, Washington's Lynx Recovery Plan and the revision of the Okanogan-Wenatchee Forest Plan; lynx and snowshoe hare research being conducted by the USFS Pacific Northwest Research Station,

Washington State University, University of Washington, University of Montana, among others; surveys conducted by Washington Department of Fish and Wildlife and the USFS; State of Washington Web sites, among others, and through the publication of the proposed critical habitat and associated outreach and public hearings.

On these private lands it is rare for there to be a Federal action that triggers consultation under section 7 of the Act, therefore, little benefit would be realized through section 7 consultation if such lands were included in the designation.

Further, we believe the benefits of including these lands in the designation are low because such lands are extremely small in size relative to the large landscape required by an individual lynx to support its home range. Therefore, although such lands may support lynx habitat, they have a negligible influence on the features essential to the conservation of the lynx, especially compared to the significant role of the National Forest lands in this area. Thus, due to the negligible affect of these small properties on the features essential to the conservation of lynx and the infrequency of Federal actions triggering consultation, we believe that there would be little benefit obtained from including these lands in the designation.

#### Benefits of Exclusion

We have evaluated small private lands not managed for commercial forestry within the proposed designation of critical habitat for the lynx. Based on this evaluation, we find that the benefits of excluding these specific lands include maintaining relationships with landowners and a reduction of potential regulations having limited conservation benefits. Partnerships are essential for the conservation and recovery of lynx in part because it is crucial to the ongoing research and surveys for lynx, snowshoe hare, and lynx habitat relationships. These landowners might allow researchers access to their lands, without which, research and monitoring would be hampered. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the lynx, are still accomplished from ongoing research and surveys as discussed above, various Web sites and through public notice-and-comment procedures.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act, we have determined that the benefits of excluding small private lands not managed for commercial forestry as critical habitat outweigh the benefits of including them as critical habitat for the lynx. As we discuss above, we believe that there would be greater benefit from excluding these smaller properties from the final designation because it will maintain relationships to promote research and monitoring of lynx, snowshoe hares and their habitat. Further, as indicated in the final rule listing the lynx (March 24, 2000; 65 FR 16052) the primary threat to the lynx was the inadequacy of regulatory mechanisms on Federal lands. National Forest lands support the vast majority of lynx habitat and the features essential to the conservation of lynx in the North Cascades. These smaller properties that are not managed for commercial forestry have a minor influence on the features essential to the conservation of lynx compared to that of the Okanogan-Wenatchee National Forest lands. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition and education because of the information provided from ongoing research and monitoring, materials provided on various Web sites, through the public review process for the WDNR HMP, Washington's Lynx Recovery Plan and the revision of the Okanogan-Wenatchee Forest Plan; lynx and snowshoe hare research being conducted by the USFS Pacific Northwest Research Station, Washington State University, University of Washington, University of Montana, among others; and through the publication of the proposed critical habitat and associated outreach and public hearings. We also believe that there would be little additional conservation benefits realized through the regulatory burden of a critical habitat designation on these lands under section 7 of the Act because Federal actions are rare. Therefore, on the basis of the above discussion and the conservation measures provided the lynx and features essential to its conservation through the National Forests, we do not believe that the exclusion of small private lands not managed for commercial forestry in this unit would result in the extinction of the lynx.

#### Correction of Administrative Error

In this final rule, we are correcting an administrative error that occurred in the listing of the Canada lynx. The State of Pennsylvania should not be listed in the Historic Range column for this species in the table in 50 CFR 17.11(h). Therefore, we are removing Pennsylvania from the list of States in the Historic Range column.

#### Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species concerned.

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on September 11, 2006 (71 FR 53355). We accepted comments on the draft analysis until October 11, 2006.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the lynx. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections and conservation efforts that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic

impacts that result from these types of protections are not included in the analysis, as they are considered to be part of the regulatory and policy baseline.

As discussed in the September 11, 2006, notice announcing the availability of the draft economic analysis ((71 FR 53355), the draft analysis estimates the potential total future costs to range from \$175 million to \$889 million in undiscounted dollars over the next 20 years. Discounted future costs are estimated to be from \$125 million to \$411 million over 20 years (\$8.38 million to \$27.6 million annually) using a 3 percent discount rate, or \$99.9 million to \$259 million over 20 years (\$9.43 million to \$24.4 million annually) using a 7 percent discount rate. After taking into consideration public comment on the proposal, the draft economic analysis and the draft NEPA document, we evaluated the benefits of conservation programs, plans, and partnerships relative to the regulatory benefits of critical habitat pursuant to section 4(b)(2) of the Act. Please refer to Exclusions Under Section 4(b)(2) of the Act section of this final rule. As a result, we are only finalizing critical habitat for the lynx lands within Voyageurs, Glacier, and North Cascades National Parks. Based on our final analysis of potential economic cost resulting from this designation, we have determined that the annualized potential cost to the National Parks would be approximately \$18,150.

A copy of the draft and final economic analysis with supporting documents are included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Montana Field Office (see ADDRESSES section) or for downloading from the Internet at <http://mountain-prairie.fws.gov/species/mammals/lynx/criticalhabitat.htm>.

Pursuant to section 4(b)(2) of the Act, we must consider relevant impacts in addition to economic ones. We have determined that no lands being designated as critical habitat for the lynx are owned or managed by the Department of Defense. We anticipate no impact to national security, partnerships, or HCPs from this final critical habitat designation. Further, we do not believe that this final designation will result in any substantial and disproportionate economic impacts.

#### Required Determinations

##### *Regulatory Planning and Review*

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and

policy issues, but it is not anticipated to have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule.

Further, Executive Order 12866 directs Federal Agencies promulgating regulations to evaluate regulatory alternatives (Office of Management and Budget, Circular A-4, September 17, 2003). Pursuant to Circular A-4, once it has been determined that the Federal regulatory action is appropriate, the agency will then need to consider alternative regulatory approaches. Since the determination of critical habitat is a statutory requirement pursuant to the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), we must then evaluate alternative regulatory approaches, where feasible, when promulgating a designation of critical habitat.

In developing our designations of critical habitat, we consider economic impacts, impacts to national security, and other relevant impacts pursuant to section 4(b)(2) of the Act. Based on the discretion allowable under this provision, we may exclude any particular area from the designation of critical habitat, providing the benefits of such exclusion outweigh the benefits of specifying the area as critical habitat and that such exclusion would not result in the extinction of the species. As such, we believe that the evaluation of the inclusion or exclusion of particular areas, or combination thereof, in a designation constitutes our regulatory alternative analysis.

In the development of this final designation we took into consideration conservation partnerships, programs, and management plans. On the basis of our evaluation of the benefits of including lands covered under these programs, plans or partnerships, we determined that greater conservation benefits for the lynx would be realized from the exclusion of these lands from this final designation. As a result, we are only finalizing critical habitat for the lynx lands within Voyageurs, Glacier, and North Cascades National Parks. Based on our final analysis of potential economic cost resulting from this designation, we have determined that the annualized potential cost to the National Parks would be approximately \$18,150. Thus, this final designation of critical habitat for the lynx will not have an annual effect on the economy of \$100 million or more or affect the economy in a material way.

##### *Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

The Service has concluded that there will not be a substantial impact on a significant number of small entities as a result of this final rule. The only areas designated are owned by the National Park Service (NPS). The NPS said, in its comments on this rule, it would likely not change its management of park lands as a result of this proposal. Any small entities likely to be affected by this rule would be park concessionaires or contractors. However, activities that are conducted by these small businesses are unlikely to result in adverse modification of lynx critical habitat. Therefore, there will be no impact on small entities from this rule.

##### *Executive Order 13211*

On May 18, 2001, the President issued an Executive Order (Number 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for the lynx is considered a significant regulatory action under Executive Order 12866, as it may raise novel legal and policy issues. However, because this final designation is restricted to National Park Service lands, it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501), the Service makes the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-federal entities receiving Federal funding, assistance, or permits, or otherwise requiring approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of

critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments, because this final designation is restricted to National Park Service lands; towns and developed areas have been excluded. As such, we do not believe that a Small Government Agency Plan is not required.

*Takings*

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating critical habitat for the lynx in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the lynx does not pose significant takings implications.

*Federalism*

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated development of, the critical habitat designation with appropriate State resource agencies in Idaho, Maine, Minnesota, Montana, and Washington. We believe that this resulting final designation of critical habitat for the lynx will have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas important to the conservation of the species are more clearly defined, and the primary constituent element of the habitat essential to the survival and conservation of the species is specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

*Civil Justice Reform*

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have designated critical habitat in accordance with the provisions of the Act. This final designation uses standard property descriptions and identifies the primary constituent element within the designated areas to assist the public in understanding the habitat needs of the lynx.

*Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This final rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act*

We have undertaken a NEPA analysis for this critical habitat designation and notified the public of the availability of the draft environmental assessment for the proposed rule on September 11, 2006. The final environmental assessment, as well as a Finding of No Significant Impact (FONSI), is available upon request from the Field Supervisor, Montana Fish and Wildlife Office (see **ADDRESSES** section) or on our Web site at <http://mountain-prairie.fws.gov/species/mammals/lynx/criticalhabitat.htm>.

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations With Native American Tribal Governments" (59 FR 22951), Executive Order 13175 "Consultation and Coordination With Indian Tribal Governments," and the Department of the Interior Manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal tribes on a government-to-government basis. Tribal lands have been excluded from this critical habitat designation. Please refer to our discussion of tribal lands under the Relationship of Critical Habitat to Tribal Lands section of this final rule.

*References Cited*

A complete list of all references cited in this rulemaking is available on the Web site <http://mountain-prairie.fws.gov/species/mammals/lynx/> or upon request from the Field Supervisor, Montana Field Office (see ADDRESSES).

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, Transportation.

**Regulation Promulgation**

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

**PART 17—[AMENDED]**

■ 1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. In § 17.11(h), revise the entry for “Lynx, Canada” under “MAMMALS” to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
<b>Mammals</b>							
* Lynx, Canada	* <i>Lynx canadensis</i>	* U.S.A. (AK, CO, ID, CO, ID, ME, MI, MN, MT, NH, NY, OR, UT, VT, WA, WI, WY), Canada, circumboreal.	* CO, ID, ME, MI, MN, MT, NH, NY, OR, UT, VT, WA, WI, WY.	* T	* 692	* 17.95(a)	* 17.40(k)
*	*	*	*	*	*	*	*

■ 3. In § 17.95(a), add critical habitat for “Canada lynx” in the same alphabetical order as this species occurs in § 17.11(h) to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

(a) *Mammals.*

\* \* \* \* \*

Canada lynx (*Lynx canadensis*)

(1) Critical habitat units are depicted on the maps below for the following States and counties:

(i) Minnesota: Koochiching and St. Louis counties;

(ii) Montana: Flathead and Glacier counties; and

(iii) Washington: Chelan County.

(2) Within these areas, the primary constituent elements for the Canada lynx are boreal forest landscapes supporting a mosaic of differing successional forest stages and containing:

(i) Presence of snowshoe hares and their preferred habitat conditions, which include dense understories of young trees or shrubs tall enough to protrude above the snow;

(ii) Winter snow conditions that are generally deep and fluffy for extended periods of time; and

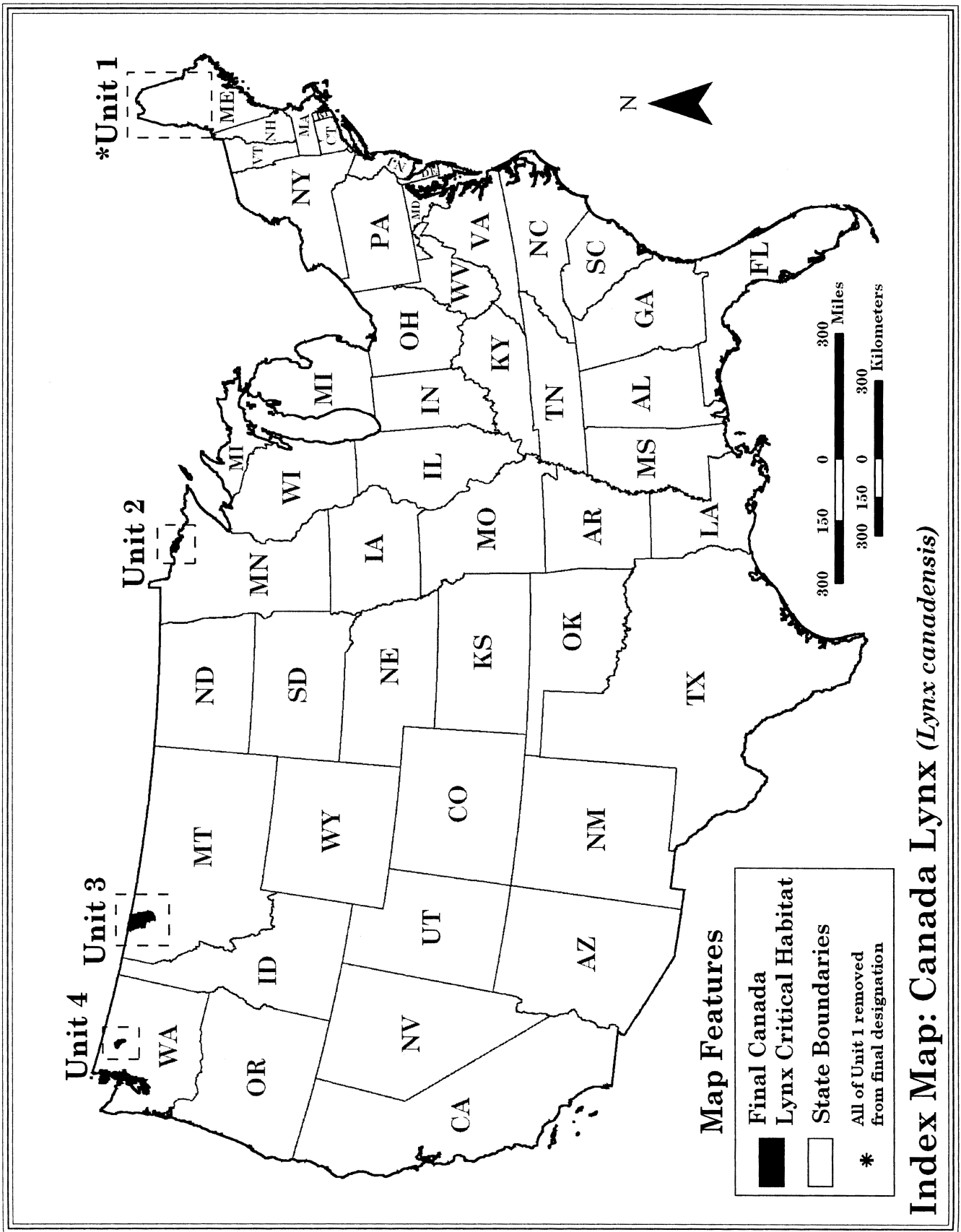
(iii) Sites for denning having abundant, coarse woody debris, such as downed trees and root wads.

(3) Critical habitat does not include waterbodies, including lakes, reservoirs, or rivers, or human-made structures existing on the effective date of this rule, such as buildings, paved and gravel roadbeds, and the land on which such structures are located.

(4) Note: Index map for Canada lynx critical habitat follows:

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(5) Unit 1: Maine Unit; all lands within Unit 1 (Maine) were excluded from the final designation of critical habitat for the Canada lynx pursuant to section 4(b)(2) of the Act.

(6) Unit 2: Minnesota Unit; Koochiching, and St. Louis Counties, Minnesota. Coordinate Projection: UTM, NAD83, Zone 15, Meters; Coordinate Definition: (easting, northing)

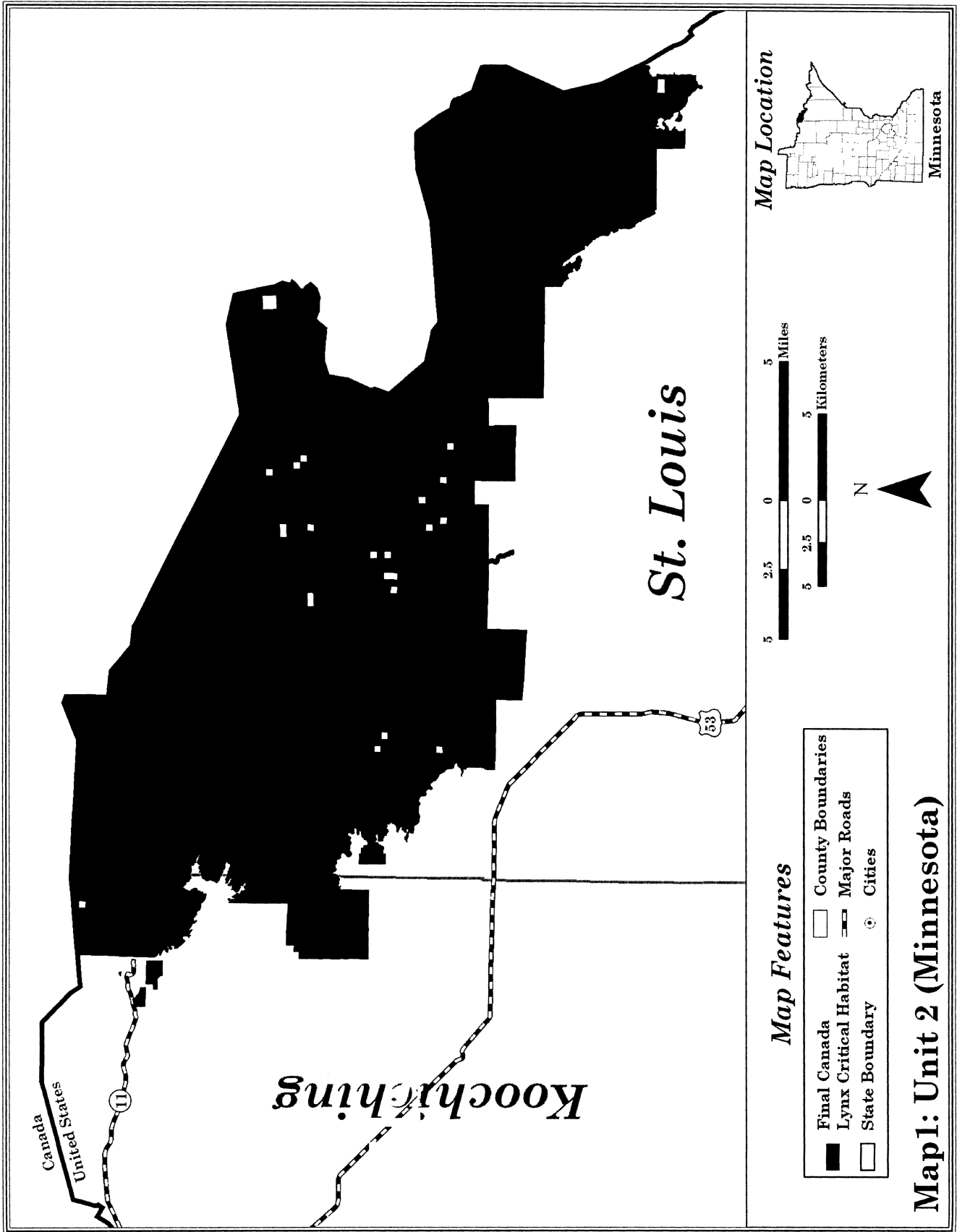
(i) Starting at the intersection (coordinate: 488708, 5385732) of the Minnesota/Canada border and Voyageurs National Park (NP) boundary, follow the Voyageurs NP boundary to the beginning.

(ii) Starting at coordinate (485661, 5382447), follow the Voyageurs NP boundary to the beginning.

(iii) Starting at coordinate (486994, 5381780), follow the Voyageurs NP boundary to the beginning.

(iv) Starting at coordinate (487475, 5383250), follow the Voyageurs NP boundary to the beginning.

(v) Note: Map 1: Unit 2 (Minnesota) follows:



(7) Unit 3: Northern Rocky Mountains Unit; Flathead and Glacier counties, Montana. Coordinate Projection: UTM, NAD83, Zone 12, Meters; Coordinate Definition: (easting, northing).

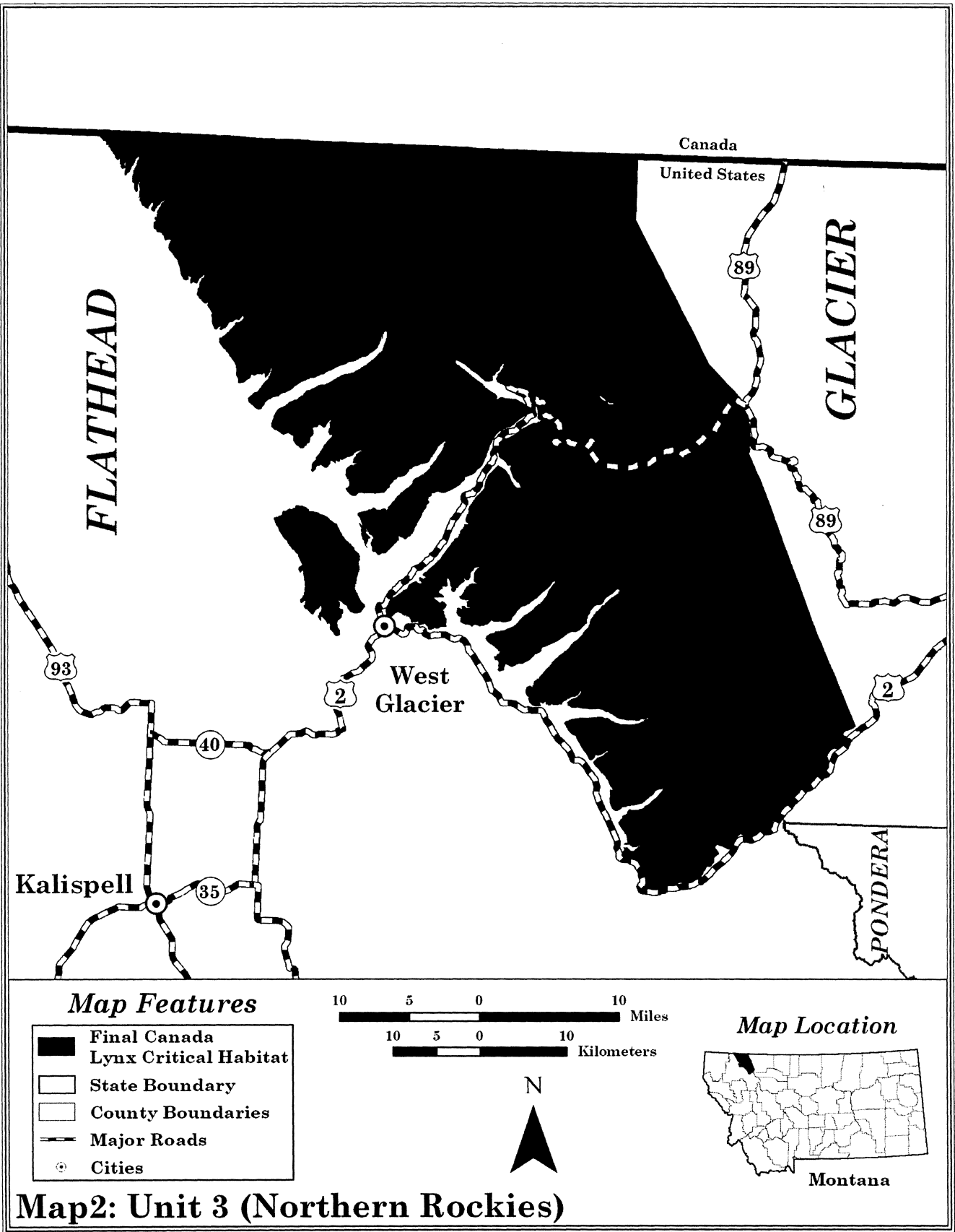
(i) Starting at the intersection (coordinate: 309104, 5430544) of the Montana/Canada border and Glacier National Park (NP) boundary, follow the Glacier NP boundary to the intersection with the 4,000-foot elevation contour at coordinate (309305, 5346020). Follow the 4,000-foot elevation contour to the intersection of the Montana/Canada border at coordinate (247220, 5433213). Follow the Montana/Canada border to the intersection with the 4,000-foot

elevation contour at coordinate (247373, 5433204). Follow the 4000 foot elevation contour to the intersection with the Montana/Canada border at coordinate (247562, 5433194). Follow the Montana/Canada border to the beginning. This area is found within the following USGS 1:24000 Quads; Trailcreek, Kintla Lake, Kintla Peak, Mount Carter, Porcupine Ridge, Mount Cleveland, Gable Mountain, Chief Mountain, Polebridge, Quartz Ridge, Vulture Peak, Mount Geduhn, Ahern Pass, Many Glacier, Lake Sherburne, Babb, Demers Ridge, Camas Ridge West, Camas Ridge East, Mount Cannon, Logan Pass, Rising Sun, Saint Mary,

McGee Meadow, Lake McDonald West, Lake McDonald East, Mount Jackson, Mount Stimson, Cut Bank Pass, Kiowa, West Glacier, Nyack, Stanton Lake, Mount Saint Nicholas, Mount Rockwell, Squaw Mountain, East Glacier Park, Pinnacle, Essex, Blacktail, Summit, Nimrod, and Mount Bradley.

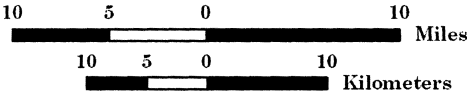
(ii) Starting at coordinate (269763, 5390173), follow the 4,000-foot elevation contour to beginning. This area is found within the following USGS 1:24000 Quads: Huckleberry Mountain, McGee Meadow, and Hungry Horse.

(iii) Note: Map 2: Unit 3 (Northern Rockies) follows:



**Map Features**

- Final Canada Lynx Critical Habitat
- State Boundary
- County Boundaries
- Major Roads
- Cities



**Map Location**



**Map2: Unit 3 (Northern Rockies)**

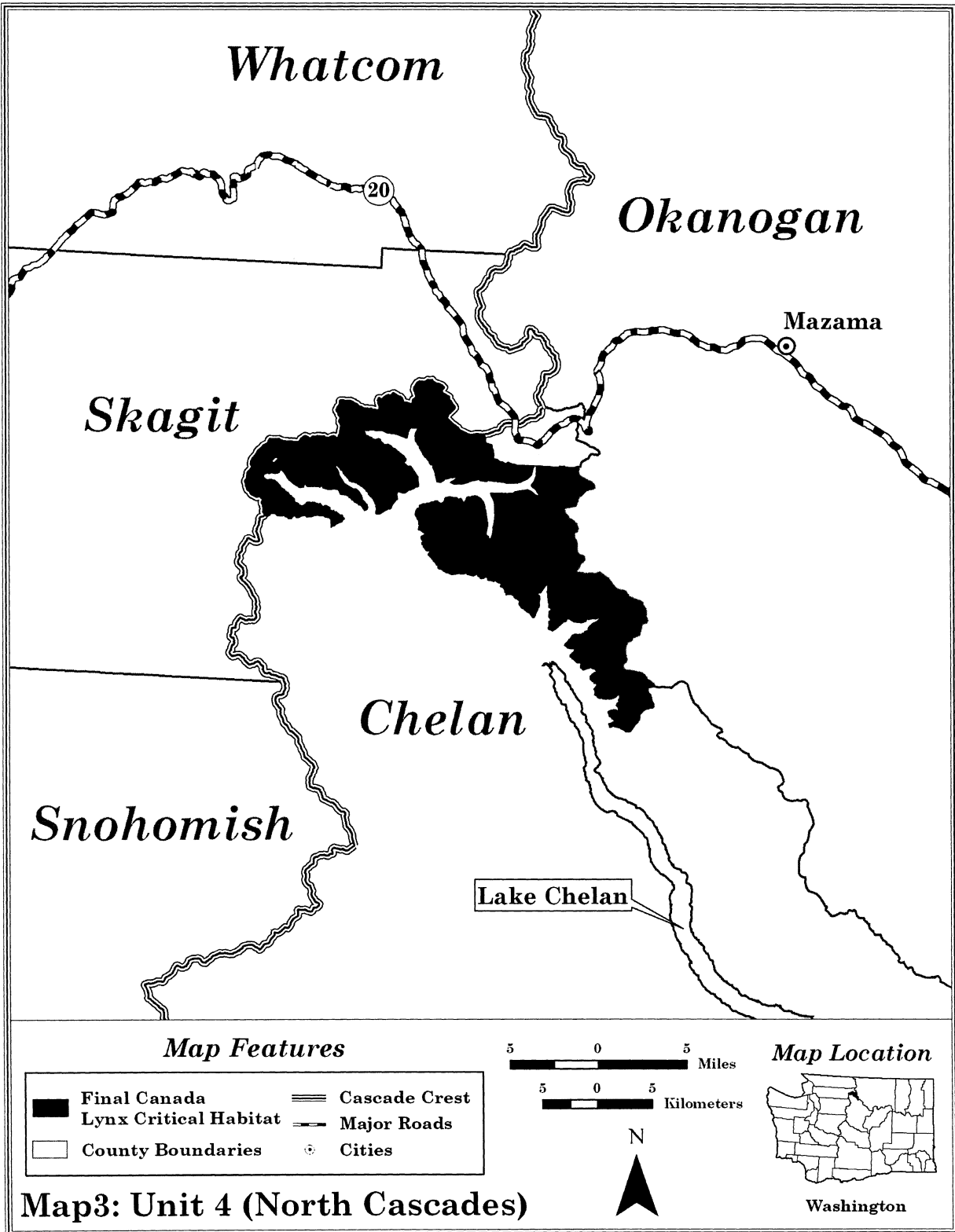
(8) Unit 4: North Cascades Unit; Chelan County, Washington. Coordinate Projection: UTM, NAD83, Zone 11, Meters; Coordinate Definition: (easting, northing).

(i) Starting at the intersection (coordinate: 221473, 5379664) of the "Cascade Crest" and the North Cascades National Park (NP) boundary, follow the North Cascades NP/Lake Chelan

National Recreation Area boundary to the intersection of the 4,000-foot elevation contour at coordinate (232788, 5352734). Follow the 4,000-foot elevation contour to the intersection of the North Cascades NP boundary at coordinate (207433, 5371068). Follow the North Cascades NP boundary to intersection with the "Cascade Crest" at coordinate (201400, 5372276). Follow

the "Cascade Crest" to the beginning. This area is found within the following USGS 1:24000 Quads: Mount Logan, Mount Arriva, McGregor Mountain, McAlester Mountain, Gilbert, Sun Mountain, Stehekin, Goode Mountain, and Cascade Pass.

(ii) Note: Map 3: Unit 4 (North Cascades) follows:



\* \* \* \* \*

Dated: October 30, 2006.  
**David M. Verhey,**  
*Acting Assistant Secretary for Fish and  
Wildlife and Parks.*  
[FR Doc. 06-9090 Filed 11-8-06; 8:45 am]  
BILLING CODE 4310-55-C