April 18, 2014

MEMORANDUM

To: Industrial Economics, Incorporated (IEc)

From: Jodi Bush, Field Supervisor, Montana Ecological Services Field Office

Subject: Incremental Effects Memorandum for the Economic Analysis for the Proposed Rule to Revise the Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx

The purpose of this memorandum is to provide information to serve as a basis for updating the economic analysis for the proposed designation of revised critical habitat for the contiguous United States Distinct Population Segment (DPS) of the Canada lynx (*Lynx canadensis*). Section 4(b)(2) of the Endangered Species Act (Act) requires the Secretary of Interior (Secretary), and therefore by delegation the U.S. Fish and Wildlife Service (Service), to consider the economic, national security, and other impacts of designating a particular area as critical habitat. The Secretary may exclude an area from critical habitat upon a determination that the benefits of exclusion outweigh the benefits of including the area as critical habitat, unless the exclusion will result in the extinction of the species. To comply with section 4(b)(2) of the Act and consider the economic impacts of a proposed critical habitat designation, the Service prepares an economic analysis that describes and monetizes, where possible, the probable economic impacts of the proposed regulation. The data in the economic analysis are then used to inform the balancing evaluation under section 4(b)(2) of the Act to consider any particular area for exclusion from the final designation.

Determining the economic impacts of a critical habitat designation involves evaluating the "without critical habitat" baseline versus the "with critical habitat" scenario, to identify those effects expected to occur solely due to the designation of critical habitat and not from the protections that are in place due to the species being listed under the Act. Effects solely due to the critical habitat designation equal the difference, or increment, between these two scenarios, and include the costs of both changes in management and increased administrative efforts that result from the designation. These changes are often thought of as "changes in behavior" or the "incremental effect" that would most likely result from the designation if finalized. Specific measured differences between the baseline (without critical habitat) and the designated critical habitat (with critical habitat) may include, but are not limited to, the economic effects stemming from changes in land or resource use or extraction, environmental quality, or time and effort expended on administrative and other activities by Federal landowners, Federal action agencies,

and in some instances, State and local governments or private third parties. These are the incremental effects that serve as the basis for the economic analysis.

There are a number of ways that designation of critical habitat could influence activities, but one of the important functions of this memorandum is to explain any differences between actions required to avoid jeopardy to the species versus actions that may be required to avoid adverse modification of critical habitat. The Service is working to update the regulatory definition of adverse modification since it was invalidated by several Courts of Appeal, including the Ninth Circuit and the Fifth Circuit. At this time (without updated regulatory language) the Service is analyzing whether destruction or adverse modification would occur based on the statutory language of the Act itself, which requires the Service to consider whether the agency's action is likely "to result in the destruction or adverse modification of habitat which is determined by the Service to be critical" to the conservation of the species. To perform this analysis, the Service considers how the proposed action is likely to affect the function of the critical habitat unit to serve the intended conservation role. The information provided below is intended to identify the possible differences for this species under the two different section 7 standards (i.e., jeopardy to the species and adverse modification of critical habitat). Ultimately, however, a determination of whether an activity may result in the adverse modification of critical habitat is based on the effects of the action to the designated critical habitat in its entirety. The information provided below is intended to identify the possible differences for the Canada lynx under the different section 7 standards for jeopardy to the species and adverse modification of critical habitat.

BACKGROUND - CANADA LYNX

The Canada lynx is a medium-sized cat with long legs and large, well-furred paws. Lynx generally measure 30 to 35 inches long and weigh 14 to 31 pounds. The lynx's large feet and long legs make it highly adapted for traversing and hunting in deep snow. Lynx are very specialized predators of snowshoe hares (*Lepus americanus*), and landscapes with high-density hare populations are optimal for lynx survival and reproduction. The lynx's range largely overlaps that of the snowshoe hare, and both species are broadly distributed across northern North America from eastern Canada to Alaska, where they are strongly associated with the expansive, continuous boreal forests of those areas.

Lynx have been documented in 24 States in the northern contiguous U.S. However, many of these records appear to be related to cyclic, temporary "irruptions" of lynx, in which large numbers of lynx disperse into the northern U.S. from Canada when snowshoe hare populations in Canada crash, historically every 8-11 years. During such events, many lynx may occur temporarily in atypical habitats where they are unable to find enough hares to survive. Lynx typically disappear quickly from these areas, with many dying and some possibly returning to areas with rebounding hare numbers or locating other areas where hare numbers are adequate for

lynx survival.

Persistent lynx populations (interbreeding populations that have occupied particular areas consistently over time) in the contiguous U.S. occur in northern Maine, northeastern Minnesota, northwestern Montana/northeastern Idaho, north-central Washington, and the Greater Yellowstone Area of southwestern Montana and northwestern Wyoming. Recently, lynx reproduction also has been documented in eastern and western Maine, northern New Hampshire and northern Vermont. Additionally, 218 lynx captured in Alaska and Canada were released into western Colorado from 1999 to 2006. The current size and productivity of this introduced population is not known, and it is uncertain whether the population will persist over the long term.

Canada lynx in the contiguous U.S. were designated a distinct population segment (DPS) and were listed as threatened under the Act in 2000 due to the inadequacy, at that time, of existing regulatory mechanisms (Factor D). Specifically, the Service determined that most lynx habitat (except in the Northeast) occurred on Federal lands, and that U.S. Forest Service (USFS) National Forest Land and Resource Management Plans and Bureau of Land Management (BLM) Land Use Plans for those areas lacked specific guidance for the conservation of lynx. These plans also governed activities, such as timber harvest, other vegetation management, recreation, fire management, and other development activities, that could, in the absence of specific conservation guidance, pose potential threats to lynx and their habitats. Most plans for Federal lands within the range of the DPS have since been formally amended to incorporate specific lynx conservation measures developed by an interagency Lynx Biology Team and articulated in the interagency Lynx Conservation Assessment and Strategy, the Northern Rockies Lynx Management Direction, and the Southern Rockies Lynx Amendment (see *Conservation Plans/Efforts*, below). Relatively recent research and climate modeling suggest that climate change also could threaten lynx, potentially resulting in significant reductions in lynx habitat and populations within the range of the DPS by mid-century.

In 2006, the Service published a final rule designating 1,841 mi^2 of lynx critical habitat but withdrew the designation in 2007 after determining it had been inappropriately influenced by the Deputy Assistant Secretary of the Interior. A revised final rule designating 39,000 mi^2 of critical habitat was published in 2009. In 2010, the U.S. District Court in Montana remanded the designation to the Service due to flaws it perceived in the Service's rationale for not designating critical habitat in Colorado and in six national forests in Idaho and Montana. Also in 2010, the U.S. District Court in Wyoming enjoined the rule, but only with regard to lands designated in Washington State, due to its concerns with the Service's consideration of potential economic impacts to recreational snowmobilers there. The courts allowed the 2009 designation to remain in effect (except in Washington) until it is superseded by a new final rule, which the Service has committed to publishing in the *Federal Register* in September, 2014.

The current proposed rule, published in September 2013, proposes to designate critical habitat in five units encompassing 41,547 mi^2 of lands in Maine, Minnesota, Montana, Idaho, Washington, and Wyoming. Land ownership within proposed critical habitat is 57.3% Federal, 31.4% private, 9.9% State, and 1.3% Tribal. We are considering excluding (under section 4(b)(2) of the Act) the same areas we excluded in 2009 – 535 mi^2 of Tribal lands in Maine, Minnesota, and Montana; 943 mi^2 of lands managed in accordance with the Maine Healthy Forest Reserve Program (HFRP); and 164 mi^2 of lands covered by the Washington Department of Natural Resources (DNR) Lynx Habitat Management Plan. We are also considering a new exclusion for 273 mi^2 of lands managed under the recently-finalized Montana Department of Natural Resources and Conservation (DNRC) Multi-species Habitat Conservation Plan (HCP). If these exclusions are finalized, CH would be designated on a total of 39,632 mi^2, a 1.6% increase over the 2009 designation. Aside from the potential exclusion of Montana DNRC lands, the only other substantial changes from the 2009 designation are the proposed additions of 629 mi^2 of mostly private commercial timber lands in northern Maine (521 mi^2 newly proposed and 108 mi^2 formerly but no longer enrolled in the HFRP) and 259 mi^2 of mostly BLM and National Park Service (NPS) lands in northwestern Wyoming. In both Maine and Wyoming, the proposed additions are immediately adjacent to critical habitat designated in 2009, have recent evidence of use by lynx, and are contiguous extensions of the habitats in those units known to support persistent lynx populations.

UNIT DESCRIPTIONS

Unit 1: Northern Maine

Unit 1 consists of 11,162 mi^2 located in northern Maine in portions of Aroostook, Franklin, Penobscot, Piscataquis, and Somerset Counties. Land ownership within the unit is 91.8% private, 7.4% State, and 0.8% Tribal; there are no Federal lands. This area was occupied by the lynx at the time of listing and is currently occupied by the species. It contains the physical and biological features in the appropriate quantity, quality, and spatial arrangement to be essential to lynx conservation and as a result these areas meet the definition of critical habitat for the lynx DPS. This area is essential to the conservation of lynx because it is the only area in the northeastern region of the lynx's range within the contiguous U.S. that currently supports persistent breeding lynx populations and likely acts as a source or provides connectivity with Canada for more peripheral portions of the lynx's range in the Northeast.

The area currently proposed for designation in this unit includes all lands that we designated in 2009, as well as 87 mi^2 of Tribal lands and 943 mi^2 of lands managed under the Maine Healthy Forest Reserve Program, both of which were excluded from the 2009 designation and which we are again considering excluding. It also includes 108 mi^2 of lands formerly but no longer enrolled in the Healthy Forest Reserve Program. The proposed unit also includes additional

lands in the Van Buren area of eastern Aroostook County (217 mi^2) and the Herseytown-Stacyville area of northern Penobscot County (304 mi^2) that were not designated in 2009. New information on lynx and habitats in these two areas demonstrates that they contain the physical and biological features essential to the conservation of lynx and meet the criteria for designation as critical habitat. Both areas are immediately adjacent to the critical habitat designated in 2009, and lynx and hare habitats are contiguous with and of similar quality, quantity, and spatial arrangement to those designated in 2009.

Commercial timber production and management are the dominant land uses within the unit; therefore, special management is required depending on the silvicultural practices implemented. Timber management practices that provide for a dense understory are beneficial for lynx and snowshoe hares. Changing forest management practices are likely to result in reduced hare and lynx habitat in this unit. Much of the lynx and hare habitat in this unit is the result of broad-scale clear-cut timber harvest in the 1970s and 1980s in response to a spruce budworm outbreak. These clear-cut stands are now at a successional (regrowth) stage (about 35 years postharvest) that features very dense conifer cover and provides optimal hare and lynx habitats, likely supporting many more hares and lynx than occurred historically. The 1989 Maine Forest Practices Act limited the size of clear-cuts resulting in a near complete shift away from clear-cuts to partial harvesting. Although it may result in forest stands that more closely reflect historic patterns of natural disturbance and forest succession, this transition to partial harvest timber management is unlikely to create or maintain the extensive tracts of hare and lynx habitats that currently exist as a result of previous clear-cutting. As the clear-cut stands continue to age, their habitat value to hares and lynx is expected to decline. Forest succession and reduced clear-cutting are expected to result in a substantially smaller lynx population in this unit by 2035. Therefore, the change in forest management practices represents a habitat-related threat to the current lynx population in this unit. Other habitat-related threats to lynx in this unit are roads and traffic and commercial and residential development.

In this area, climate change is also predicted to significantly reduce lynx habitat and population size. Climate modeling suggests the possibility of a 59 percent decline in lynx numbers in the northeastern United States and eastern Canada by 2055 due to climate change, with greater vulnerability among small, peripheral, low-elevation populations like that in Maine. Under this modeled scenario, there would be difficulty sustaining such populations, and the lynx distribution would likely contract to the core of the population on the Gaspe Peninsula in Quebec, Canada. Other climate research modeled potential climate-induced loss of snow and concluded that snow suitable for lynx (snow deep enough to exclude the smaller-footed bobcat [*Lynx rufus*]) may disappear from Maine entirely by the end of this century.

Unit 2: Northeastern Minnesota

Unit 2 consists of 8,147 mi^2 located in northeastern Minnesota in portions of Cook, Koochiching, Lake, and St. Louis Counties, and the Superior National Forest. Land ownership within the unit is 47.4% Federal, 33.5% State, 18.1% private, and 1.0% Tribal. In 2003, when we formally reviewed the status of the lynx, numerous verified records of lynx existed from northeastern Minnesota. The area was occupied at the time of listing and is currently occupied by the species. Lynx are currently known to be distributed throughout northeastern Minnesota, as has been confirmed through DNA analysis, radio- and GPS-collared animals, and documentation of reproduction. This area contains the physical and biological features in the appropriate quantity, quality, and spatial arrangement to be essential to lynx conservation and as a result these areas meet the definition of critical habitat for the lynx DPS.

The area currently proposed for designation includes all lands that we designated in 2009, as well as 78 mi^2 of Tribal lands, which we excluded from the 2009 designation and which we are again considering for exclusion. No additional areas are proposed for designation of critical habitat.

This area is essential to the conservation of lynx because it is the only area in the Great Lakes Region for which we have evidence of recent lynx reproduction. It likely acts as a source or provides connectivity for more peripheral portions of the lynx's range in the region. Timber harvest and management is a dominant land use. Therefore, special management is required depending on the silvicultural practices conducted.

In this area, climate change may affect lynx and their habitats; however, modeling suggested that snow conditions in northern Minnesota should continue to be suitable for lynx through the end of this century. Fire suppression or fuels treatment, traffic and habitat fragmentation associated with road-building, and development are other habitat-related threats to lynx. Incidental capture of lynx in traps set for other species has been documented recently in Minnesota, as have lynx mortalities from vehicle collisions.

Unit 3: Northern Rocky Mountains

Unit 3 consists of 10,474 mi^2 located in northwestern Montana and a small portion of northeastern Idaho in portions of Boundary County in Idaho and Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Missoula, Pondera, Powell and Teton Counties in Montana. Land ownership within the unit is 82.6% Federal, 3.6% State, 10.2% private, and 3.5% Tribal. This area includes National Forest System lands and BLM lands in the Garnet Resource Area. It was occupied by lynx at the time of listing and is currently occupied by the species. Lynx are known to be widely distributed throughout this unit and breeding has been documented in multiple locations. This area contains the physical and biological features in the appropriate

quantity, quality, and spatial arrangement to be essential to lynx conservation and as a result these areas meet the definition of critical habitat for the lynx DPS. This area is essential to the conservation of lynx because it appears to support the highest density lynx populations in the Northern Rocky Mountain region of the lynx's range. It likely acts as a source for lynx and provides connectivity to other portions of the lynx's range in the Rocky Mountains, particularly the Yellowstone area.

The area currently proposed for designation includes lands that we designated in 2009, as well as 370 mi^2 of Tribal lands, which we excluded from the 2009 designation and which we are again considering for exclusion. It also includes State trust lands in western Montana managed in accordance with the recently finalized Montana DNRC Multi-species HCP. We are considering excluding 271 $mi^2$of lands managed under this HCP from designation as critical habitat in this unit. The area proposed for designation in northeast Idaho has been adjusted to reflect improvements in lynx habitat mapping approved by both the USFS and the Service, resulting in a reduction of about 5 mi^2 of proposed critical habitat in that portion of the unit. Other national forests with lands in this proposed critical habitat unit are working on refinements to lynx habitat mapping protocols and/or modeling. If the Service approves of the methodologies used to improve lynx habitat mapping, the results may be considered in our subsequent final critical habitat designation. At this time, no new areas are proposed for designation of critical habitat in this unit.

Timber harvest and management is a dominant land use; therefore, special management is required depending on the silvicultural practices conducted. In this area, climate change is expected to result in the potential loss of snow conditions suitable for lynx by the end of this century. Fire suppression or fuels treatment, traffic, and development are other habitat-related threats to lynx.

Unit 4: North Cascades

Unit 4 consists of 1,999 mi^2 located in north-central Washington in portions of Chelan and Okanogan Counties and includes mostly Okanogan-Wenatchee National Forest lands as well as BLM lands in the Spokane District and Loomis State Forest lands. Land ownership within the unit is 91.5% Federal, 8.2% State, and 0.2% private; there are no Tribal lands. This area was occupied at the time lynx was listed and is currently occupied by the species. Evidence from recent research and DNA analysis shows lynx distributed within this unit, with breeding being documented. Although researchers have fewer records in the portion of the unit south of Highway 20, this area contains boreal forest habitat and the components essential to the conservation of the lynx. Further, it is contiguous with the portion of the unit north of Highway 20, particularly in winter when deep snows close Highway 20. The northern portion of the unit adjacent to the Canada border also appears to support few recent lynx records; however, it is

designated wilderness, so access to survey this area is difficult. This northern portion contains extensive boreal forest vegetation types and the components essential to the conservation of the lynx. Additionally, lynx populations exist in British Columbia directly north of this unit.

The area currently proposed for designation includes all lands that we designated in 2009. However, the designation for this unit was enjoined by the U.S. District Court of Wyoming in 2010 (i.e., critical habitat was in effect in this unit from March, 2009 - one month after the final designation – until the court enjoined the designation [only in this unit] on September 10, 2010; thereafter, critical habitat was not in effect in this unit). It also includes 164 mi^2 of lands managed in accordance with the Washington DNR Lynx Habitat Management Plan, which we excluded from the 2009 designation and which we are again considering for exclusion under section 4(b)(2) of the Act. No additional areas are proposed for designation of critical habitat in this unit.

This area contains the physical and biological features in the appropriate quantity, quality, and spatial arrangement to be essential to lynx conservation and as a result these areas meet the definition of critical habitat for the lynx DPS. This area is essential to the conservation of lynx because it is the only area in the Cascades region of the lynx's range that is known to support breeding lynx populations. Timber harvest and management is a dominant land use; therefore, special management is required depending on the silvicultural practices conducted. In this area, Federal land management plans are being amended to incorporate lynx conservation. Climate change is expected to reduce lynx habitat and numbers in this unit, with potential loss of snow suitable for lynx and the potential complete disappearance of lynx from the area by the end of this century. Traffic and development are other habitat-related threats to lynx.

Unit 5: Greater Yellowstone Area

Unit 5 consists of 9,765 mi^2 located in Yellowstone National Park and surrounding lands of the Greater Yellowstone Area in southwestern Montana and northwestern Wyoming. Lands in this unit are found in Carbon, Gallatin, Park, Stillwater, and Sweetgrass Counties in Montana; and Fremont, Lincoln, Park, Sublette, and Teton Counties in Wyoming. Land ownership within the unit is 96.9% Federal, 0.3% State, and 2.8% private; there are no Tribal lands. This area was occupied by lynx at the time of listing and is currently occupied by the species. It contains the physical and biological features in the appropriate quantity, quality, and spatial arrangement to be essential to lynx conservation and as a result these areas meet the definition of critical habitat for the lynx DPS.

The area currently proposed for designation includes all lands that we designated in 2009. The proposed unit also includes additional lands in Lincoln, western Sublette, and Teton counties that were not designated in 2009. In particular, we propose to add 77 mi^2 of lands in the northeast

part of Grand Teton National Park and 182 mi^2 of mostly BLM lands east of the Bridger-Teton National Forest. Both areas are within the "core area" classified in the Recovery Outline, both are contiguous with the critical habitat area designated in 2009, and both include similar habitats and snow regimes. Both areas have recent verified occurrences of lynx, and are immediately adjacent to an area known to support a small but persistent lynx subpopulation.

The areas proposed in Grand Teton National Park have had verified lynx occurrences in the vicinity in the past 5 years. The proposed BLM lands are considered occupied and are composed of high-quality lynx/snowshoe hare habitat including mature spruce/fir, mixed conifer/aspen, and aspen stands with documented corresponding high densities of hares. These BLM lands also include a documented movement corridor (often referred to as Hoback Rim or Bondurant) through this area that may be of key importance to lynx moving through the landscape from the Wyoming Range to the Togwotee Pass area to the north. This information suggests that these areas contain the physical and biological features essential to the conservation of lynx and meet the criteria for designation as critical habitat.

This unit also includes a small amount of State trust lands in southwestern Montana managed in accordance with the recently finalized Montana DNRC Multi-species HCP. We are considering excluding 1.3 mi^2 of lands managed under this HCP from designation as critical habitat in this unit.

The Greater Yellowstone Area is naturally marginal lynx habitat with highly fragmented foraging habitat. For this reason lynx home ranges in this unit are likely to be larger and incorporate large areas of non-foraging matrix habitat. Climate change is expected to reduce lynx habitat and numbers in this unit, with potential loss of snow suitable for lynx over most of the area by the end of this century, though with potential snow refugia in the Wyoming Range. Fire suppression or fuels treatment, traffic, and development are other habitat-related threats to lynx in this unit. Therefore, special management is required depending on the fire suppression and fuels treatment practices conducted and the design of highway development projects.

As in Unit 3, some national forests with lands in this proposed critical habitat unit are working on refinements to lynx habitat mapping protocols and/or modeling. We will evaluate these refinements for consideration in our subsequent final critical habitat designation to the extent that we receive the refinements prior to its finalization.

Table 1: Size, Occupancy, and Ownership of Each Unit, and Co-occurring Listed Species

Unit (Area in mi^2)	Occupancy	Ownership	Area (mi^2)	Co-occurring Listed Species or Existing Critical Habitat for Listed Species?[1]
1 Northern Maine (11,162)	Occupied at time of listing (2000) and currently	Federal State Tribal Private	0 823 87 10,252	Atlantic salmon (E, CH[2]), Gray wolf (E)[3], Eastern puma (E)[4], Furbish lousewort (E), Eastern prairie fringed orchid (T)
2 Northeastern Minnesota (8,147)	Occupied at time of listing (2000) and currently	Federal State Tribal Private	3,864 2,732 78 1,473	No co-occurring Listed Species or Critical Habitat
3 Northern Rocky Mountains (10,474)	Occupied at time of listing (2000) and currently	Federal State Tribal Private	8,652 381 370 1,072	Bull trout (T, CH[2]), Grizzly bear (T)
4 North Cascades (1,999)	Occupied at time of listing (2000) and currently	Federal State Tribal Private	1,830 164 0 4	Bull trout (T, CH[2]), Northern spotted owl (T, CH), Gray wolf (E)[3], Grizzly bear (T)
5 Greater Yellowstone Area (9,765)	Occupied at time of listing (2000) and currently	Federal State Tribal Private	9,465 30 0 271	Grizzly bear (T)

[1] (E) = Endangered, (T) = Threatened, (CH) = Critical Habitat. Other listed species with mapped ranges (usually at the county level) that overlap proposed lynx CH but whose actual habitats are not expected to overlap lynx habitats and species proposed or candidates for listing under the Act are not included in the table but are discussed below.
[2] CH for Atlantic salmon in Maine and Bull trout in Montana and Washington includes only water bodies; proposed lynx CH excludes water bodies, so although salmon and trout CH waterways may occur within the boundary of the proposed lynx CH, there is no actual overlap.
[3] Proposed for delisting.
[4] Presumed extinct.

Most of the proposed lynx critical habitat units overlap with the ranges and/or designated critical habitat for other species listed under the Act. Table 2, below, summarizes the extent of this overlap for species currently listed as threatened or endangered. The extent of areal "range" overlap reported in the table represents visual estimates of the percentage of overlap based on ranges as mapped on the Service's Environmental Conservation Online System (ECOS) Species Profile pages (e.g., for Atlantic salmon: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E07L). Overlap of proposed lynx critical habitat with designated critical habitat for other listed species was calculated using Service GIS data for the various habitats. Species currently proposed or candidates for listing under the Act are not included in Table 2, but they are discussed below.

In Maine (Unit 1), the mapped DPS and designated critical habitat of the endangered Atlantic salmon (*Salmo salar*) partially overlap the proposed lynx critical habitat. Within the proposed lynx critical habitat unit boundary, there are 1,524 miles of river/stream and 20,821 acres of pond/lake designated as critical habitat for the Atlantic salmon. However, because salmon critical habitat includes only water bodies and proposed lynx critical habitat specifically excludes water bodies, there is no actual physical overlap between salmon critical habitat and proposed lynx critical habitat. The ranges of two listed plants, the endangered Furbish lousewort (*Pedicularis furbishiae*) and the threatened Eastern prairie fringed orchid (*Platanthera leucophaea*) also occur within Unit 1, in Aroostook County. The Furbish lousewort occurs only in discrete habitat patches on the banks of the St. John River. The Eastern prairie fringed orchid occurs only at a single site in a bog that encompasses <10 acres. Combined, the ranges of these two listed plants comprise <1% of the proposed lynx critical habitat. The range of the endangered gray wolf (*Canis lupus*) overlaps this unit and, although individual dispersing wolves may rarely occur in this unit, it is not occupied by a wolf pack or population. In June, 2013, the Service proposed to de-list the gray wolf (78 FR 35664). The range of the endangered Eastern puma (*Puma (=felis) concolor couguar*) also overlaps this unit; however, the Service considers this species to be extinct. Additionally, in October, 2013, the Service proposed to list the Northern long-eared bat (*Myotis septentrionalis*) as endangered (78 FR 61045), and its mapped range completely overlaps proposed lynx critical habitat in Unit 1.

In northeastern Minnesota (Unit 2), there are no listed species or designated critical habitats that overlap proposed lynx critical habitat. The entire state is considered within the range of the Northern long-eared bat, which is proposed for listing as endangered. If listed, the bat's range would completely overlap proposed lynx critical habitat in Unit 2. The Service de-listed the Western Great Lakes DPS of the gray wolf (to which wolves in Minnesota belong) in December, 2011 (76 FR 81666).

In northwestern Montana and northeastern Idaho (Unit 3), about 95 percent of proposed lynx critical habitat is overlapped by the mapped range of the threatened bull trout (*Salvelinus confluentus*). Within the proposed lynx critical habitat unit boundary, there are 897 miles of river/stream and 18,116 acres of lake designated as critical habitat for the bull trout. However, because trout critical habitat includes only water bodies and proposed lynx critical habitat excludes water bodies, there is no actual physical overlap between trout critical habitat and proposed lynx critical habitat. Also in Unit 3, the mapped range of the threatened grizzly bear (*Ursus arctos horribilis*) completely overlaps proposed lynx critical habitat. No critical habitat has been designated for the bear. In this unit, the mapped ranges of the endangered white sturgeon (*Acipenser transmontanus*) and black-footed ferret (*Mustela nigripes*) and the threatened piping plover (*Charadrius melodus*), Spalding's catchfly (*Silene spaldingii*), and water howellia (*Howellia aquatilis*) also overlap proposed lynx critical habitat. However, the

habitats of these species differ markedly from that of the lynx, and they are not expected to occur in lynx habitats. Additionally, five species either proposed or candidates for listing under the Act have mapped ranges that overlap proposed lynx critical habitat. These include the North American wolverine (*Gulo gulo luscus*) and the yellow-billed cuckoo (*Coccyzus americanus*), both proposed for listing as threatened (78 FR 7864 [February 2013], and 78 FR 61622 [October 2013], respectively); and the Sprague's pipit (*Anthus spragueii*), whitebark pine (*Pinus albicaulis*), and meltwater lednian stonefly (*Lednia tumana*), each a candidate for listing. The Service de-listed the Northern Rocky Mountains DPS of the gray wolf (to which wolves in Montana and Idaho belong) in May, 2011 (76 FR 25590).

In north central Washington (Unit 4), proposed lynx critical habitat is completely overlapped by the mapped ranges of the endangered gray wolf (currently proposed for de-listing,) and the threatened grizzly bear, bull trout, and Northern spotted owl (*Strix occidentalis caurina*). Within the proposed lynx critical habitat unit boundary, there are 56 miles of river/stream and 56 acres of lake designated as critical habitat for the bull trout. However, because trout critical habitat includes only water bodies and proposed lynx critical habitat excludes water bodies, there is no actual physical overlap between trout critical habitat and proposed lynx critical habitat. Also within proposed lynx critical habitat, there are 15,219 acres of designated critical habitat for the Northern spotted owl; this represents 1.1 percent of the proposed lynx critical habitat. In this unit, the mapped range of the threatened Ute ladies'-tresses (*Spiranthes diluvialis*) also overlaps proposed lynx critical habitat. However, the habitat of this species differs markedly from that of the lynx, and it is not expected to occur in lynx habitats. Additionally, the mapped ranges of the North American wolverine and the yellow-billed cuckoo, both proposed for listing as threatened, completely overlap proposed lynx critical habitat. The mapped ranges of the greater sage grouse (*Centrocercus urophasianus*) and whitebark pine, both candidates for listing, also overlap proposed lynx critical habitat.

In southwestern Montana and northwestern Wyoming (Unit 5), proposed lynx critical habitat is completely overlapped by the mapped range of the threatened grizzly bear. In this unit, the mapped ranges of the endangered black-footed ferret and the threatened Ute ladies'-tresses also overlap proposed lynx critical habitat. However, the habitats of these species differ markedly from that of the lynx, and they are not expected to occur in lynx habitats. Additionally, the mapped ranges of the North American wolverine and the yellow-billed cuckoo, both proposed for listing as threatened, overlap proposed lynx critical habitat. The mapped ranges of the greater sage grouse, Sprague's pipit, and whitebark pine, each a candidate for listing, also overlap proposed lynx critical habitat. The Service de-listed the gray wolf in Montana in May, 2011 (76 FR 25590), and in Wyoming in September, 2012 (77 FR 55530).

Table 2: Unit, Co-occurring Listed Species or Existing Critical Habitat, and Potential Effects of Critical Habitat Designation

Unit	Co-occurring Listed Species or Existing Critical Habitat for Listed Species?[1]	Area of Range and/or CH of Other Listed Species within Proposed Lynx CH	Incremental Conservation Efforts Recommended after Critical Habitat Designated?	Major Changes?
1 Northern Maine	Atlantic salmon (E, CH[2]), Furbish lousewort (E), Eastern prairie fringed orchid (T)	Atlantic salmon: 1,524 river/stream miles and 20,821 pond/lake acres of CH. Furbish lousewort and E. prairie fringed orchid: combined <1% range overlap.	Anticipate no incremental measures, no changes or increases in sec 7 consults because all proposed CH is occupied by lynx. Also because CH has been designated in Unit 1 since 2009 and sec 7 would already have applied where the current proposal differs from the 2009 designation.	None anticipated.
2 Northeastern Minnesota	No co-occurring Listed Species or Critical Habitat	None.	Anticipate no incremental measures, no changes or increases in sec 7 consults because all proposed CH is occupied by lynx. Also because CH has been designated in MN since 2009 and current proposed CH does not differ.	None anticipated.
3 Northern Rocky Mountains	Bull trout (T, CH[2]), Grizzly bear (T)	Bull trout: 95% range overlap; 897 river/stream miles and 18,116 lake acres of CH. Grizzly bear: 100% range overlap.	Anticipate no incremental measures, no changes or increases in sec 7 consults because all proposed CH is occupied by lynx. Also because CH has been	None anticipated.

			designated in Unit 3 since 2009, and current proposal is nearly identical to the 2009 designation.	
4 North Cascades	Bull trout (T, CH[2]), Northern spotted owl (T, CH), Gray wolf (E), Grizzly bear (T)	Bull trout: 100% range overlap; 56 river/stream miles and 56 lake acres of CH. Northern spotted owl: 100% range overlap; 15,219 acres of CH. Gray wolf: 100% range overlap. Grizzly bear: 100% range overlap.	Anticipate no incremental measures, no changes or increases in sec 7 consults because all proposed CH is occupied by lynx, had CH designated in 2009-2010, and the current proposed CH does not differ from the previously designated CH.	None anticipated. Although CH here was enjoined by the court, lynx occur throughout the area currently proposed, so it has been subject to sec 7 consultation, which has evaluated impacts to lynx habitats.
5 Greater Yellowstone Area	Grizzly bear (T)	Grizzly bear: 100% range overlap.	Anticipate no incremental measures or increases in number of sec 7 consults because all proposed CH is occupied by lynx. There may be a slight change in sec 7 consultation because of additional time required to consider CH in lynx analyses in newly proposed areas (Grand Teton National Park, BLM	None anticipated.

			lands). However, existing guidance (Northern Rockies Lynx Management Direction, Lynx Conservation Assessment and Strategy, Agency Mgmt. Plans) already include framework and protections for evaluating project effects to lynx habitat.	

[1] (E) = Endangered, (T) = Threatened, (CH) = Critical Habitat. Other listed species with mapped ranges (usually at the county level) that overlap proposed lynx CH but whose actual habitats are not expected to overlap lynx habitats and species proposed or candidates for listing under the Act are not included in the table but are discussed above.
[2] CH for Atlantic salmon in Maine and Bull trout in Montana and Washington includes only water bodies; proposed lynx CH excludes water bodies, so although salmon and trout CH waterways may occur within the boundary of the proposed lynx CH, there is no actual overlap.

BASELINE ANALYSIS

Conservation Plans and Regulatory Mechanisms that Provide Protection to the Lynx and its Habitat absent the Critical Habitat Designation

Conservation Plans/Efforts

The following are ongoing conservation efforts that provide some benefits to the Canada lynx and are considered part of the baseline because these activities will occur with or without critical habitat designation.

Interagency Lynx Conservation Assessment and Strategy: Units 2, 3, 4, and 5

In 1998, in anticipation of the lynx's listing under the Act, regional and state directors of the Service, USFS, BLM, and NPS approved preparation of the Lynx Conservation Assessment and Strategy (LCAS) to provide a consistent and effective approach to conserve lynx and to assist with Section 7 consultation on Federal lands. An interagency Steering Committee selected a Science Team to assemble the best available scientific information on lynx and appointed a Lynx Biology Team to prepare a lynx conservation strategy applicable to Federal land management in the contiguous United States.

The first edition of the LCAS was completed in January, 2000 and revised in August, 2000. The Steering Committee subsequently issued several amendments and clarifications, and the most recent revision of the LCAS was completed in August, 2013 (available for download at: http://www.fs.fed.us/biology/resources/pubs/wildlife/index.html). The LCAS identified and evaluated 17 risk factors (e.g., timber and fire management, recreation, roads, livestock grazing, trapping, etc.) thought to have the potential to affect lynx habitat suitability, productivity, mortality, and movements. It also directed Federal agencies to map potential lynx habitat and identify lynx analysis units (LAUs) to evaluate potential impacts of management actions on lynx and snowshoe hare habitats. Finally, the LCAS developed recommended conservation measures, standards, and guidelines to be applied to lynx habitats on Federal lands that were designed to mimic historic conditions and landscape-scale disturbance patterns and to maintain or improve lynx and hare habitats at both local (project-level) and landscape scales.

After its initial completion in 2000, most Federal land managers within the range of the lynx DPS agreed to implement the standards and guidelines identified in the LCAS until management plans could be formally amended to specifically address lynx conservation. In 2000, the Service and the BLM signed a Canada Lynx Conservation Agreement (see below) in which the BLM agreed to coordinate assessment and planning efforts with the Service to assure a comprehensive approach to lynx conservation and to use the LCAS, supporting science, and locally specific information as the basis for the approach and to streamline consultation under section 7 of the Act. In 2001, the Service and USFS signed a similar Canada Lynx Conservation Agreement (see below). In 2004, the Superior National Forests in Minnesota revised its Land and Resource Management Plan, in which it adopted the measures identified in the LCAS and the Conservation Agreement. In 2007, the USFS completed the Northern Rockies Lynx Management Direction (NRLMD, see below), fulfilling its agreement with the Service to amend forest plans in that region (Montana and parts of Idaho, Wyoming, and Utah) to conserve lynx.

The following Federal land units within the proposed revised critical habitat remain covered by commitments to implement the LCAS: USFS lands in Units 2 and 4 (Superior and Okanogan-Wenatchee National Forests); BLM lands in Units 3, 4, and 5; and Yellowstone National Park (NPS) lands in Unit 5. Since 2007, National Forest System lands in Units 3 and 5 have been managed in accordance with the NRLMD, which abides by the recommendations in the LCAS, but allows for flexibility based on new information from continuing lynx research and monitoring of lynx habitat needs and use.

Although the LCAS was designed for application on Federal lands, the information, concepts, and conservation measures can also be applied to lynx habitat planning and management on non-Federal lands. Nonetheless, the LCAS and the subsequent conservation agreements and management plan amendments it generated have had limited utility in Unit 1, where most lands are privately-owned and where the predominant land uses, timber management and harvest, often

occur in the absence of a Federal nexus that would necessitate consultation under section 7 of the Act.

Canada Lynx Conservation Agreement – Bureau of Land Management and U.S. Fish and Wildlife Service: Units 3, 4, and 5

The Canada Lynx Conservation Agreement between the BLM and the Service, signed by both agencies in August, 2000, was meant to promote the conservation of the lynx and its habitats on BLM-managed lands. It identified actions the BLM agreed to take to reduce or eliminate adverse effects or risks to lynx, and to maintain the ecosystems on which lynx depend. These actions were based on the LCAS (above) and on the Science Report prepared by the interagency/international Lynx Science Team ("The Scientific Basis for Lynx Conservation" [Ruggieo et al. 2000]). Specifically, the Service and the BLM agreed to:

(1) coordinate assessment and planning efforts between the two agencies and with other appropriate entities (e.g. USFS, NPS, State and Tribal agencies) to assure a comprehensive approach to conserving lynx;

(2) use the Science Report and LCAS, together with locally specific information as appropriate, as the basis for these actions;

(3) use the Science Report and LCAS, together with locally specific information as appropriate, as the basis for streamlining ESA Section 7 consultation between the BLM and the Service; and

(4) use the best available scientific and commercial data during the Section 7 consultation process.

The BLM agreed to work with the Service and USFS to map known and potential lynx habitats, designate LAUs, and identify key linkage areas on BLM lands in its Northern (proposed critical habitat Units 3 and 5) and Southern Rockies and Cascades Mountains (Unit 4) geographic areas, and to refine maps as newer information becomes available. No lynx habitat occurs on BLM lands in the Great Lakes (Unit 2) or Northeast (Unit 1) geographic areas. The BLM also agreed that its Land Use Plans (LUPs) for units identified as having lynx habitats should include measures necessary to conserve lynx, and that any needed changes to LUPs would be made through amendments, plan revisions, or other appropriate mechanisms consistent with BLM policy direction, the Federal Land Policy and Management Act (FLPMA), and the Council for Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA).

The BLM also agreed to review and consider the recommendations in the LCAS prior to making any new decision to undertake actions in lynx habitat and when evaluating ongoing projects, and

to conduct research, inventory, and monitoring of lynx and lynx habitats on BLM lands, in coordination with the Service and other agencies. This agreement is still in effect and is expected to continue to benefit the lynx and its habitats on BLM lands regardless of critical habitat designation.

Canada Lynx Conservation Agreement – U.S. Forest Service and U.S. Fish and Wildlife Service: Units 2, 3, 4, and 5

The Canada Lynx Conservation Agreement between the USFS and the Service, signed by both agencies in 2001, was very similar to that between the BLM and the Service (above). In the agreement, the USFS committed to consider the LCAS during project analysis and to not proceed with projects that would be "likely to adversely affect" lynx until USFS Forest Land and Resource Plans (forest plans) were amended to provide guidance necessary to conserve lynx. In 2004, the Chippewa and Superior National Forest in Minnesota (the Superior is included in proposed critical habitat in Unit 2) revised their forest plans with lynx guidance and are no longer subject to the conservation agreement.

The original agreement expired but was renewed in 2005 and revised to add the concept of "occupied" lynx habitat. It was amended in 2006 to define "occupied habitat," to list those national forests then considered occupied by lynx, and it was extended for 5 years - until 2011, or until all relevant forest plans were amended. The agreement was intended to be implemented by the USFS until forest plans were amended or revised to provide guidance necessary to conserve lynx, and to be applied only to National Forest System lands mapped as occupied lynx habitat.

Subsequently, 18 national forests in Montana, Idaho, and Wyoming amended their forest plans in accordance with the 2007 NRLMD (see below) and are thus no longer subject to the conservation agreement. Another eight national forests (seven in Colorado and one that straddles the border between northern Colorado and southern Wyoming) amended their forest plans via the 2008 Southern Rockies Lynx Amendment; however, no lands within these forests are proposed for critical habitat designation. Within proposed critical habitat, only the Okanogan-Wenatchee National Forest in Washington (Unit 4) has not yet revised or amended its forest plan; this is the only national forest currently subject to the conservation agreement. This agreement is expected to continue to benefit the lynx and its habitats on the Okanogan-Wenatchee National Forest regardless of critical habitat designation.

Northern Rockies Lynx Management Direction (NRLMD): Units 3 and 5

Also referred to as the Northern Rockies Mountain Lynx Amendment, this management plan was developed by the USFS in collaboration with the Service in 2007 for 18 national forests in

Montana, Idaho, and Wyoming. Individual national forests are currently adopting and implementing the NRLMD's guidelines and standards. The NRLMD incorporates much of the LCAS guidance but includes additional conservation efforts for vegetation with regard to maintenance of multi-storied forest stands. The standard, known as VEG S6, precludes the implementation of all vegetation management activities that would reduce snowshoe hare habitat in multi-story mature or late successional forests.

In addition, the NRLMD differs from the LCAS in that wildland urban interfaces (WUIs) are defined and delineated areas where exceptions to the NRLMD standards (e.g., VEG S6) may be implemented to reduce wildland fire risks to urban communities. The NRLMD also differs from the LCAS regarding standards for over-the-snow recreation and grazing. Rather than prescribing standards that must be met for these activities, it provides guidelines that should be considered in project evaluation or impacts to lynx. In effect, this is a less rigid interpretation of the LCAS guidance for these activities based on the USFS' understanding of risk factors to lynx on its lands.

Natural Resources Conservation Service (NRCS) Healthy Forest Reserve Program: Unit 1

In 2003, Congress passed the Healthy Forest Restoration Act. Title V of this Act designates a Healthy Forest Reserve Program with objectives to: (1) promote the recovery of threatened and endangered species, (2) improve biodiversity, and (3) enhance carbon sequestration. In 2006, Congress provided the first funding for the HFRP, and Maine, Arkansas, and Mississippi were chosen as pilot States to receive funding through their respective NRCS State offices. Based on a successful pilot program, in 2008, the HFRP was reauthorized as part of the Farm Bill, and in 2010, NRCS published a final rule in the *Federal Register* (75 FR 6539) amending regulations for the HFRP based on provisions amended by the bill.

In 2006 and 2007, the NRCS offered the HFRP to landowners in the proposed Canada lynx critical habitat unit in Maine to promote development of lynx forest management plans. Currently, there are four landowners enrolled in the program, with lynx management plans on a total of approximately 943.2 mi^2 within proposed critical habitat (8.5 percent of the total proposed critical habitat in Unit 1). Lynx maintain large home ranges; therefore, forest management plans at large landscape scales like these will provide substantive conservation benefits to lynx.

The NRCS requires that the plans must be based on the Service's "Canada Lynx Habitat Management Guidelines for Maine" (McCollough 2007), which were developed from the best available science on lynx management for Maine and have been revised as new research results became available. The guidelines require maintenance of prescribed snowshoe hare densities to support reproducing lynx populations in Maine. The guidelines are:

(1) Avoid upgrading or paving dirt or gravel roads traversing lynx habitat. Avoid construction of new high-speed/high-traffic-volume roads in lynx habitat. Desired outcome: Avoid fragmenting potential lynx habitat with high-traffic/high-speed roads.

(2) Maintain through time at least one lynx habitat unit of 35,000 ac (14,164 ha) (~1.5 townships) or more for every 200,000 ac (80,937 ha) (~9 townships) of ownership. At any time, about 20 percent of the area in a lynx habitat unit should be in the optimal mid-regeneration conditions (see Guideline 3). Desired outcome: Create a landscape that will maintain a continuous presence of a mosaic of successional stages, especially mid-regeneration patches that will support resident lynx.

(3) Employ silvicultural methods that will create regenerating conifer-dominated stands 12–35 ft (3.7–10.7 m) in height with high stem density (7,000–15,000 stems/ac; 2,800–6,000 stems/ha) and horizontal cover above the average snow depth that will support greater than 2.7 hares/ac (1.1 hares/ha). Desired outcome: Employ silvicultural techniques that create, maintain, or prolong use of stands by high populations of snowshoe hares.

(4) Maintain land in forest management. Development and associated activities should be consolidated to minimize direct and indirect impacts. Avoid development projects that occur across large areas, increase lynx mortality, fragment habitat, or result in barriers that affect lynx movements and dispersal. Desired outcome: Maintain the current amount and distribution of commercial forest land in northern Maine. Prevent forest fragmentation and barriers to movements. Avoid development that introduces new sources of lynx mortality.

(5) Encourage coarse woody debris for den sites by maintaining standing dead trees after harvest and leaving patches (at least .75 ac; .30 ha) of windthrow or insect damage. Desired outcome: Retain coarse woody debris for denning sites.

NRCS administers the HFRP program, holds the contract, and ultimately ensures that the enrollees meet their commitments under the program. HFRP forest management plans must provide a net conservation benefit for lynx, which will be achieved by employing the Service's lynx guidelines, identifying baseline habitat conditions, and meeting NRCS standards for forest plans. Plans must meet NRCS HFRP criteria and guidelines and comply with numerous environmental standards, including NEPA compliance. Plans must be reviewed and approved by the NRCS with assistance from the Service. Details of the plans are proprietary and will not be made public per NRCS policy.

Plans must be developed for a forest rotation (70 years) and include a decade-by-decade assessment of the location and anticipated condition of lynx habitat on the ownership. Some landowners are developing plans exclusively for lynx, and others are combining lynx management (umbrella species for young forest) with pine marten (umbrella species for mature forest) and other biodiversity objectives. Broad public benefits will derive from these plans, including benefits to many species of wildlife that share habitat with the lynx.

Landowners who are enrolled with the NRCS commit to a 10-year contract. Landowners must complete their lynx forest management plans within 2 years of enrollment. The majority (50 to 60 percent) of HFRP funds are withheld until plans are completed. By year 7, landowners must demonstrate on-the-ground implementation of their plan. The NRCS will monitor and enforce compliance with the 10-year contracts. At the conclusion of the 10-year cost share contract, we anticipate that Safe Harbor Agreements or other agreements to provide regulatory assurances will be developed by all landowners as an incentive to continue implementing the plans.

Currently, two plans are completed and two are in the final stage of editing. Although not publicly available, the Service has reviewed and approved the two finalized plans. The Service and NRCS also completed site visits of these two ownerships to confirm that the forest management is being done in a way that will create the desired high quality hare habitat. We have also reviewed and approved hare-lynx forest management for the next 5 years to complete the HFRP commitments for these plans. The remaining two plans are expected to be finalized and site visits and Service reviews completed by June, 2014. (A fifth landowner has withdrawn its enrollment in the HFRP program because the owner wants to give its previously-enrolled lands to DOI for a northern Maine national park).

We completed a programmatic biological opinion for the HFRP in 2006 that assessed the overall effects of the program on lynx habitat and on individual lynx and provided the required incidental take coverage. Separate biological opinions will be developed under this programmatic opinion for each of the four enrollees. These tiered opinions will document environmental baseline, net conservation benefits, and incidental take for each landowner. If additional HFRP funding is made available to Maine in the future, new enrollees will be tiered under this programmatic opinion. This programmatic opinion will be revised as new information is obtained, or if new rare, threatened, or endangered species are considered for HFRP funding.

Commitments to the HFRP are strengthened by several other conservation efforts. The Nature Conservancy land enrolled in the HFRP is also enrolled in the Forest Stewardship Council (FSC) forest certification program, which requires safeguards for threatened and endangered species. The Forest Society of Maine is under contract to manage a conservation easement held by the State of Maine on the Katahdin Forest Management lands, which is also enrolled in the HFRP. This easement requires that threatened and endangered species be protected and managed. The

Forest Society of Maine also holds a conservation easement on the Merriweather LLC–West Branch property, which contains requirements that threatened and endangered species be protected and managed. These lands are also certified under the Sustainable Forestry Initiative and FSC, which require that there be programs for threatened and endangered species. The Passamaquoddy enrolled lands are managed as trust lands by the Bureau of Indian Affairs, and projects occurring on those lands are subject to NEPA review and section 7 consultation.

In the final revised critical habitat designation, published in the *Federal Register* on February 25, 2009 (74 FR 8649–8652), we determined that the benefits of excluding lands managed in accordance with the HFRP outweighed the benefits of including them in the designation, and that doing so would not result in extinction of the species. We are again considering excluding all lands (943.2 mi^2) currently managed in accordance with the HFRP from the revised lynx critical habitat designation. However, in the final rule, we will again weigh the benefits of inclusion versus exclusion of these lands in the final critical habitat designation. Currently, no other programs or landowners are implementing the Service's 2007 "Canada Lynx Habitat Management Guidelines for Maine."

Maine Department of Inland Fisheries and Wildlife Furbearer Trapping HCP: Unit 1:

The Maine Department of Inland Fisheries and Wildlife (IFW) and the Service are working to finalize a HCP to address incidental take of lynx associated with legal trapping of other furbearers in the state. Although not yet complete, finalization of the HCP is anticipated, and when finalized, the HCP will benefit lynx by strengthening measures aimed at avoiding incidental capture and providing mitigation for anticipated take by implementing the Service's lynx management guidelines on a large area on state land within the proposed critical habitat.

Unit 2:

No approved HCPs or other local or private conservation plans/efforts (but see Interagency Lynx Conservation Assessment and Strategy, above, and *Federal Land Management, Tribal Regulations, and State Wildlife Laws* sections, below).

State of Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan (Montana DNRC HCP): Units 3 and 5

The Montana DNRC worked closely with the Service in developing and completing NEPA analysis on this multi-species HCP (Montana DNRC and U.S. Fish and Wildlife Service 2010). It includes a Lynx Conservation Strategy that minimizes impacts of forest management activities on lynx, complements lynx conservation objectives set forth in the States' Comprehensive Fish and Wildlife Conservation Strategy (Montana Department of Fish, Wildlife and Parks 2005), and

describes conservation commitments that are based on recent information from lynx research in Montana. It also commits to active lynx monitoring and adaptive management programs.

In our biological opinion regarding potential impacts to lynx of implementation of the HCP, the Service concluded that the HCP "…promotes the conservation of lynx and their habitat through increased conservation commitments by DNRC for forest management practices, maintenance of the habitat mosaic, structure, and components required to support lynx and their primary prey, the snowshoe hare, monitoring, and adaptive management." We determined that the proposed action is not likely to jeopardize the continued existence of Canada lynx within the contiguous U.S. DPS and that forest management activities managed under the conservation commitments of the DNRC HCP would not appreciably reduce the likelihood of survival and recovery of Canada lynx. Therefore, we are considering excluding 271.4 mi^2 of forested State Trust lands in western Montana managed in accordance with the DNRC HCP from the revised lynx critical habitat designation in Unit 3, and 1.3 mi^2 in southwest Montana from designation in Unit 5.

State of Washington Department of Natural Resources Lynx Habitat Management Plan for DNR-managed Lands (WDNR LHMP): Unit 4

The WDNR LHMP encompasses 197 mi^2 of WDNR-managed lands distributed throughout north-central and northeastern Washington in areas delineated as Lynx Management Zones in the Washington State Lynx Recovery Plan (Stinson 2001; Washington DNR 2006). Of the area covered by the plan, 164.2 mi^2 overlaps the area proposed for designation as critical habitat. The WDNR LHMP was finalized in 2006, and is a revision of the lynx plan that WDNR had been implementing since 1996. 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.

The 2006 WDNR LHMP provided further provisions to avoid the incidental take of lynx. The WDNR is committed to following the LHMP until 2076, or until the lynx is delisted. The WDNR LHMP contains measures to guide WDNR in creating and preserving quality lynx habitat through its forest management activities. The objectives and strategies of the LHMP are developed for multiple planning scales (ecoprovince and ecodivision, Lynx Management Zone, Lynx Analysis Unit (LAU), and ecological community), and include:

(1) 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;

(2) 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;

(3) 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

(4) 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.

The LHMP 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 LHMP. WDNR has been managing for lynx for almost two decades, and the Service has concluded that the management strategies implemented are effective.

In the final revised critical habitat designation, published in the *Federal Register* on February 25, 2009 (74 FR 8657–8658), we determined that the benefits of excluding lands managed in accordance with the WDNR LHMP outweighed the benefits of including them in the designation, and that doing so would not result in extinction of the species. We, therefore, again are considering excluding 164.2 mi^2 of lands managed in accordance with the WDNR LHMP from the revised lynx critical habitat designation.

Federal Regulations/Acts

The following Federal laws and regulations provide some benefits to the Canada lynx and are considered part of the baseline because these benefits will continue with or without critical habitat designation.

Section 7 of the Endangered Species Act

The Act mandates that all Federal departments and agencies conserve listed species and use their authorities to achieve the purposes of the Act. Section 7, one of the specific mechanisms the Act provides to achieve its purposes, requires that Federal agencies develop a conservation program for listed species (i.e., Section 7(a)(1)) and that they avoid actions that will further harm listed species and their critical habitat (i.e., Section 7(a)(2)).

Section 7(a)(2) directs all Federal agencies to insure that any actions they authorize, fund, or carry out (i.e., actions with a Federal nexus) do not jeopardize the continued existence of an endangered or threatened species or destroy or adversely modify designated or proposed critical habitat. Under the implementing regulations (50 CFR 402), Federal agencies must review their actions and determine whether they may affect Federally-listed and proposed species or designated or proposed or critical habitat. If listed species or their habitats may be affected, consultation with the Service is required. This consultation may conclude either informally with written concurrence from the Service or through formal consultation with a biological opinion provided to the Federal agency. If the consultation concludes with a finding of jeopardy or adverse modification, the Service will suggest reasonable and prudent alternatives that would allow the action to proceed without jeopardizing listed species or adversely modifying critical habitats.

Because all units currently proposed for critical habitat designation are occupied by lynx, section 7 consultation and its associated benefits to lynx have occurred in these areas since the lynx was listed under the Act in 2000. Section 7 consultation in these areas will continue for actions with a Federal nexus whether or not critical habitat is ultimately designated; therefore, these benefits are considered part of the baseline condition for lynx in these areas.

Convention on International Trade in Endangered Species of Wild Fauna and Flora

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments intended is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Participating States (countries) adhere voluntarily to the agreement. States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties. Although CITES is legally binding on the Parties – in other words they have to implement the Convention – it does not take the place of national laws. Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at the national level.

The Service's Division of Management Authority (DMA) developed the CITES Export Program for Appendix II Furbearer Species (CITES Export Program) to ensure that any specimens of Appendix II Furbearers exported from the U.S. were obtained legally and that their export will not be detrimental to the survival of the species or to other similarly-listed species. Both the Canada lynx and the bobcat are Appendix II species: wild or captive-bred bobcats may be legally exported, but only captive-bred lynx may be exported.

In 2001, the DMA and the Service's Division of Consultation, HCPs, Recovery, and State Grants conducted an intra-agency consultation under section 7 of the Act to ensure that DMA's CITES Export Program would not likely jeopardize the continued existence of the listed lynx DPS. The

goal of this effort was to minimize the potential for the incidental trapping, injury, and mortality of lynx associated with legal bobcat harvest and export. The consultation provided a mechanism by which any lynx incidentally captured during otherwise legal State or Tribal managed bobcat harvest would be released unharmed (when possible), that all incidental capture of lynx would be reported to the Service, and that any such take of lynx was covered by an incidental take permit. Another outcome of the consultation was that the Service worked with States and trappers throughout the lynx's range to develop and provide to trappers the informational brochure *How to Avoid Incidental Take of Lynx while Trapping or Hunting Bobcats or other Furbearers*. Many of the recommendations in this brochure were subsequently adopted in State trapping/furbearer regulations within the range of the DPS.

National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA; P.L. 91-190; 42 USC 4321 *et seq*.) establishes Federal policy to preserve important historic, cultural, and natural aspects of our national heritage and accomplishes this by assisting Federal managers in making sound decisions based on an objective understanding of the potential environmental consequences of proposed management alternatives. This act applies to any Federal project or other project requiring Federal funding or licensing, and it requires Federal agencies to use a systematic, interdisciplinary approach integrating natural and social sciences to identify and objectively evaluate all reasonable alternatives to a proposed action. In 2005, the Council on Environmental Quality (CEQ) developed detailed guidance and regulations for Implementing NEPA (40 CFR Parts 1500-1508). The NEPA process identifies whether there is a need for consultation under section 7 of the Endangered Species Act and provides a mechanism by which necessary consultation is achieved.

National Forest Management Act

The National Forest Management Act (NFMA; 16 U.S.C. §§ 1600-1614, as amended) reorganized, expanded and amended the Forest and Rangeland Renewable Resources Planning Act of 1974, which called for the management of renewable resources on National Forest System lands. The NFMA requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. It is the primary statute governing the administration of national forests.

The NFMA established that the policy of Congress is that all forested lands in the National Forest System are to be maintained for the maximum benefits of multiple-use, sustained-yield management. The Act contains numerous Congressional findings pertaining to the management of national forests, including:

(1) it is in the public interest for the Forest Service to assess the nation's public and private renewable resources and develop a national renewable resource program;

(2) to serve the national interest, the development of the renewable resource program must include a thorough analysis of environmental and economic impacts, coordination of multiple-use and sustained-yield, and public participation;

(3) the Forest Service has the responsibility and opportunity to assure a national natural resource conservation posture that will meet our citizens' needs in perpetuity; and

(4) the knowledge derived from coordinated public and private research programs will promote a sound technical and ecological base for the effective management, use and protection of the nation's renewable resources.

The NFMA dictates that the Secretary must develop a Renewable Resource Program for protection, management and development of the National Forest System, for cooperative USFS programs and for research. The program must be developed in accordance with the principles contained in the Multiple-Use Sustained-Yield Act of 1960 and the National Environmental Policy Act of 1969. The Act requires the Secretary to develop and implement resource management plans for each unit of the National Forest System. In doing so, the Secretary must use an interdisciplinary approach, coordinate with state and local resource management efforts, provide for public participation, and provide for multiple-use and sustained-yield of products and services. The Secretary must revise the management plans whenever significant changes occur in a unit, update the plans at least once every 15 years, and make all plans available to the public.

The Act requires the Secretary to promulgate an extensive list of regulations regarding the development and revision of management plans, several of which address wildlife resources and environmental protection. For example, the Secretary must specify procedures to ensure management plans comply with the NEPA. The Secretary must appoint a committee of scientists who are not USFS employees to aid in promulgation of the required regulations. The views of the committee must be included in the public information supplied when regulations are proposed. Also, the Secretary must specify guidelines for developing management plans that:

(1) ensure consideration of both economic and environmental factors;

(2) provide for wildlife and fish;

(3) provide for the diversity of plant and animal communities;

(4) ensure timber harvesting will occur only where water quality and fish habitat are adequately protected from serious detriment; and

(5) ensure clear-cutting and other harvesting will occur only where it may be done in a manner consistent with the protection of soil, watersheds, fish, wildlife, recreation, aesthetic resources and regeneration of the timber resource.

Management in accordance with the NFMA, combined with the USFS-USFWS Canada Lynx Conservation Agreement and subsequent forest plan revisions (see *Conservation Plans/Efforts*, above), is anticipated to benefit the lynx and its habitats on National Forest System lands regardless of critical habitat designation.

National Park Service Organic Act

The 1916 NPS Organic Act (16 USC 1 *et seq*. as amended) directs parks to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." These general powers were broadened by PL 95-250 in 1978 (16 USC 1a-1, 79a-q), in which Congress gave further direction that parks should not be managed in any way that might reduce values or purposes for which they have been established. In the NPS *Management Policies,* both requirements to conserve park resources and values, and to protect them from impairment, are further explained.

Conservation is considered to be the "primary goal" of the NPS, and it is to be considered predominant if there is a conflict between conserving resources and values and providing for enjoyment of them. To carry out this mandate, park managers are instructed to always seek ways to avoid or minimize adverse impacts on resources. However, they are specifically prohibited from allowing actions that might impair them. Impairment involves the integrity of the resource or value, and it is more likely if the resource or value at stake is one for which the park unit was created.

The Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the NPS to mean native animal life should be protected and perpetuated as part of the parks' natural ecosystems. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. The restoration of native species is a high priority. Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity and ecological integrity of plants and animals. This management and policy direction is expected to benefit lynx and its habitats on NPS lands regardless of critical habitat designation.

National Parks and Recreation Act

The National Parks and Recreation Act of 1978 requires that general management plans be developed for each unit in the National Park System. General management plans are to include, among other things:

(1) measures for the preservation of the area's resources;

(2) indications of types and general intensities of development (including visitor circulation and transportation patterns, systems and modes) associated with public enjoyment and use of the area, including general locations, timing of implementation, and anticipated costs;

(3) identification of and implementation commitments for visitor carrying capacities for all areas of the unit; and

(4) indications of potential modifications to the external boundaries of the unit, and the reasons therefor.

Management of national parks in accordance with this act, combined with the Organic Act (above) and implementation of the conservation measures articulated in the LCAS (above), is expected to benefit lynx and its habitats on NPS lands regardless of critical habitat designation.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) was enacted in to establish a unified, comprehensive, and systematic approach to managing and preserving public lands that protects "the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." The FLPMA applies to Federally-owned lands that have not been set aside for national forests, national parks, wildlife preservation areas, military bases, or other federal purposes. The FLPMA is administered by the BLM, which manages some 261 million acres of public lands comprising 12 percent of the United States.

Under the FLPMA, the BLM is required to establish a planning process for the management of public lands that accommodates multiple uses of the land and its resources and achieves sustained yields of natural resources. When developing Land Use Plans, the FLPMA requires the BLM to:

(1) implement principles of multiple use of public lands and sustained yields of resources;

(2) use a systematic, interdisciplinary approach that incorporates the consideration of the physical, biological, economic, and other sciences;

(3) give priority to areas of critical environmental concern;

(4) consider the present and potential uses of public lands;

(5) consider the relative scarcity of the various values of public lands;

(6) weigh long-term and short-term public benefits;

(7) comply with applicable pollution control laws; and

(8) coordinate land-use planning with other Federal and State agencies also involved in land-use planning.

The BLM is required to periodically inventory all public lands it manages and the resources on those lands. The goal of the FLPMA is to preserve and protect public lands in their natural condition to the extent possible. Uses of BLM-managed lands include commercial uses such as livestock grazing, mineral extraction, and logging; recreational uses such as fishing, hunting, birding, boating, hiking, biking, and off-road vehicle travel; and conservation of biological, archeological, historical, and cultural resources. Management of BLM lands in accordance with the FLPMA, combined with implementation of the BLM-USFWS Canada Lynx Conservation Agreement (see *Conservation Plans/Efforts*, above) is anticipated to benefit the lynx and its habitats on BLM-managed lands regardless of critical habitat designation.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) of 1934, originally authorized the Secretaries of Agriculture and Commerce to provide assistance to and cooperate with Federal and State agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. In addition, the FWCA authorizes the preparation of plans to protect wildlife resources, the completion of wildlife surveys on public lands, and the acceptance by the Federal agencies of funds or lands for related purposes provided that land donations received the consent of the State in which they are located.

The FWCA was amended in 1946 to require consultation with the Service and State fish and wildlife agencies where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a Federal permit or license. Such consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The 1958 amendments added provisions to recognize the vital contribution of wildlife resources to the

Nation and to require equal consideration and coordination of wildlife conservation with other water resources development programs. The amendments expanded the instances in which diversions or modifications to water bodies would require consultation with the Service. These amendments also permitted lands valuable to the Migratory Bird Management Program to be made available to the State agency exercising control over wildlife resources.

Consultation in accordance with the FWCA allows the Service to recommend conservation measures that may be needed to avoid or minimize impacts to wildlife resources, including listed species and designated critical habitats if any may be affected by programs permitted under the act.

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. The 1972 Amendments stipulated broad national objectives to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

Important provisions were contained in Section 404 of the amendments, which authorized the Corps of Engineers to issue permits for the discharge of dredged or fill material into navigable waters at specified disposal sites. Before issuing such permits, the Corps must consult with the Service in accordance with section 7 of the Endangered Species Act and the Fish and Wildlife Coordination Act (above). Through this process, the Service recommends measures, if necessary, to avoid or minimize impacts to Service trust responsibilities including listed species and their habitats (including designated critical habitats) if they may be affected by projects permitted under the act.

Wilderness Act

The Wilderness Act of 1964 (16 U.S.C. 1131-1136, 78 Stat. 890) directed the Secretary of the Interior, within 10 years, to review every roadless area of 5,000 or more acres and every roadless island (regardless of size) within National Wildlife Refuge and National Park Systems and to recommend to the President the suitability of each such area or island for inclusion in the National Wilderness Preservation System, with final decisions made by Congress. The Secretary of Agriculture was directed to study and recommend suitable areas in the National Forest System.

The Act provides criteria for determining suitability and establishes restrictions on activities that can be undertaken on a designated area. Under authority of this Act, over 25 million acres of land and water in the National Wildlife Refuge System were reviewed. Some 7 million acres in 92 units were found suitable for designation. From these recommendations, as of December 1998, over 6,832,800 acres in 65 units had been established as part of the National Wilderness Preservation System by special Acts of Congress. The preservation goal and restrictions on activities in designated wilderness areas are expected to continue to benefit the lynx and its habitats regardless of critical habitat designation.

Federal Land Management

The following Federal agencies own and manage lands within some of the areas proposed as critical habitat. Their ongoing land management activities are considered part of the baseline because they will provide some benefits to the Canada lynx with or without critical habitat designation. For those future proposed activities that may affect the Canada lynx or its critical habitat, section 7 consultation has or will occur and may be considered as part of the incremental effects of critical habitat designation (see further discussions that follow).

Federal lands make up 57.3 percent (23,811 mi^2) of the area encompassed by the proposed critical habitat units. The vast majority is National Forest System lands managed by the USFS, but the proposed designation also includes national parks managed by the NPS and lands managed by the BLM, the Bureau of Reclamation, and the Service (Table 3).

Table 3: Proposed Revised Lynx CH Areas and Percentages by Federal Agency.

Federal Agency	**Proposed 2013 CH (mi^2)**	**Percent of Total Proposed Critical Habitat**
Fish and Wildlife Service	3	0%
Bureau of Land Management	321	0.8%
Forest Service	20,203	48.6%
Bureau of Reclamation	4	0%
Army Corps of Engineers	0	0%
National Park Service	3,274	7.9%
Other Federal	7	0%
Total Federal	23,811	57.3%

USDA Forest Service

The USFS is the largest landowner within the areas proposed for designation as critical habitat. National Forest System lands constitute nearly half of all lands proposed for designation and about 85 percent of all Federal lands. These include the Superior National Forest in Unit 2; the

Idaho Panhandle, Kootenai, Flathead, Lolo, Lewis and Clark, and Helena National Forests in Unit 3; the Okanogan-Wenatchee National Forest in Unit 4; and the Gallatin, Custer, Bridger-Teton, and Shoshone National Forests in Unit 5.

All national forests are managed in accordance with the Federal Land Policy and Management Act (FLPMA) and the National Forest Management Act (NFMA) (see *Federal Regulations/Acts*, above). The resulting general management approach is expected to provide some benefits to the lynx and its habitats. Additionally, the Superior and Okanogan-Wenatchee National Forests in Units 2 and 4, respectively, are managed in accordance with the conservation measures articulated in the LCAS (see *Conservation Plans/Efforts*, above), which is expected to provide specific benefits to, and conservation of, the lynx and its habitats on these forests. The remaining national forests in Units 3 and 5 are managed in accordance with the NRLMD (see *Conservation Plans/Efforts*, above), which also is expected to specifically benefit the lynx and its habitats, and to ensure its conservation on National Forest System lands. All national forests in Units 3 and 5 also have formally amended their forest plans to incorporate the conservation measures and associated standards and guidelines identified in the NRLMD. Management direction and policy on national forests within the range of the lynx DPS is expected to provide benefits to, and ensure the conservation of, the lynx and its habitats regardless of critical habitat designation.

National Park Service

NPS lands represent almost 8 percent of all lands proposed for designation and about 14 percent of all Federal lands. These include Voyageurs National Park in Minnesota (Unit 2), Glacier National Park in Montana (Unit 3), North Cascades National Park in Washington (Unit 4), Yellowstone National Park in Montana and Wyoming (Unit 5), and Grand Teton National Park in Wyoming (Unit 5). All national parks are managed in accordance with the NPS Organic Act and the National Parks and Recreation Act (see *Federal Regulations/Acts*, above). Existing management policies in all national parks follow the regulations of the Endangered Species Act in protecting any species that fall under NPS jurisdiction. This means that the unauthorized taking of lynx through direct or indirect means, or adverse effects to critical habitat, cannot occur. In addition, Voyageurs and Yellowstone National Parks manage lynx and hare habitats in accordance with the LCAS (see *Conservation Plans/Efforts*, above), which is expected to provide specific benefits to, and conservation of, the lynx and its habitats in these national parks. Within the range of the lynx DPS, NPS management direction and policy are expected to benefit the lynx and its habitats in national parks regardless of critical habitat designation.

Bureau of Land Management

Lands managed by the BLM represent less than 1 percent of all lands proposed for designation and about 1.3 percent of all Federal lands. Proposed critical habitat includes BLM lands within the Garnet Resource Area in western Montana (Unit 3), the Spokane District in northern Washington (Unit 4), and the Kemmerer and Pinedale Districts in western Wyoming (Unit 5). All BLM lands are managed in accordance with the Federal Land Policy and Management Act (FLPMA, see *Federal Regulations/Acts*, above), and all units within the range of the Canada lynx DPS manage and conserve the lynx and its habitats in accordance with the LCAS and the Canada Lynx Conservation Agreement between the BLM and the Service (see *Conservation Plans/Efforts*, above). BLM management direction and policy are expected to benefit the lynx and its habitats on BLM lands regardless of critical habitat designation.

Other Federal lands within proposed critical habitat are minor. Bureau of Reclamation and Service lands combined represent 0.02 percent of all proposed lands and 0.03 percent of all Federal lands.

Tribal Regulations

Tribal lands encompassed by the proposed critical habitat boundaries include those of the Passamaquoddy Tribe and the Penobscot Indian Nation in Maine (about 87 mi^2 in Unit 1), Grand Portage Band of Lake Superior Chippewa in Minnesota (about 78 mi^2 in Unit 2), and the Confederated Salish and Kootenai Tribes of the Flathead Nation - Flathead Reservation in Montana (about 370 mi^2 in Unit 3). No tribal lands are encompassed by proposed critical habitat Units 4 or 5.

Unit 1: Passamaquoddy Tribe - Environmental Mission: "to protect the environment and conserve natural resources within all Passamaquoddy lands, waters, and the air we share" (http://www.passamaquoddy.com/?page_id=13).

Penobscot Indian Nation Department of Natural Resources – "Our mission is to manage, develop and protect the Penobscot Nation's natural resources in a sustainable manner that protects and enhances the cultural integrity of the Tribe" (http://www.penobscotnation.org/DNR/DNR1.htm).

Penobscot Indian Nation Chapter VII Inland Fish and Game Regulations – Section 204, Lynx – "Closed general season. There shall be no hunting, trapping, or possessing Canada lynx." (http://www.penobscotnation.org/DNR/PDF/Chapter%20VII/Chapter%207%20Fish%20&%20Game%20Regs.pdf).

Unit 2: Grand Portage Band of Lake Superior Chippewa Integrated Resource Management Plan – no copy yet available.

Unit 3: Confederated Salish and Kootenai Tribes of the Flathead Nation - Flathead Reservation.

Fish, Wildlife, Recreation and Conservation Division mission statement: "to protect and enhance the fish, wildlife, and wildland resources of the Tribes for continued use by the generations of today and tomorrow" (http://www.cskt.org/tr/fwrc.htm).

2014 Tribal Wildlife Management Program Plan (http://www.cskt.org/FWRC/docs/WILDLIFE.PROGRAM.PLAN.FY.2014.pdf):

"Objective 8. Develop and implement habitat management guidelines for Canadian lynx in coordination with the Forestry Department as specified in the Forest Management Plan."

2000 Forest Management Plan (http://www.cskt.org/documents/forestry/fmp05.pdf):

Pg. 105: "The Canada lynx has been proposed for listing as a threatened species (figure 2-34). The status of the lynx on the Flathead Indian Reservation is unknown at this time. Track surveys and remote sensing cameras have detected the presence of lynx. Studies of their status are underway."

Pg. 285: "12. Standards for lynx management and habitat protection are set forth in the Canada Lynx Conservation Assessment and Strategy, 1999. This strategy guides land management activity in lynx foraging and denning habitat. Lynx occurrence and populations will continue to be monitored on the Reservation."

State Wildlife Laws

The following wildlife laws by the states where the Canada lynx occurs provide some benefits to the Canada lynx and are considered part of the baseline because these benefits will continue with or without critical habitat designation.

Most states within the range of the lynx prohibited trapping and hunting of lynx prior to the 2000 listing of the DPS as threatened, and those activities were prohibited in all states once the DPS was listed. All states within the lynx DPS range that allow legal bobcat harvest (1) manage in accordance with the CITES Export Program for Appendix II Furbearer Species (see *Federal Regulations/Acts*, above), (2) have distributed information to bobcat trappers and hunters on how to avoid incidental take of lynx, and (3) report all incidences of incidental take of lynx to the Service's Division of Management Authority to assure that take does not exceed the amount

permitted under the intra-agency section 7 consultation for the CITES Export Program. Most states have also adopted special regulations in areas where lynx occur to minimize the potential for incidental take of lynx during legal trapping of other furbearers.

Unit 1: Northern Maine

In 1967, a bounty on lynx in Maine was repealed, and lynx were given complete protection from trapping and hunting. Although the Maine Department of Inland Fisheries and Wildlife (IFW) trapping HCP and associated regulation and proposed mitigation have not been finalized, IFW has adopted special trapping regulations where lynx may occur which address specifics about traps types and sets that may be used to legally harvest other furbearers and that are intended to minimize the likelihood of incidentally trapping lynx (http://www.eregulations.com/maine/hunting/lynx-protection-zone-trap-restrictions/). IFW has adopted and made available for download on its web page the interagency brochure *How to Avoid Incidental Take of Lynx while Trapping or Hunting Bobcats and other Furbearers*, and modified it to be more specific to Maine and to include a quick reference guide (http://www.maine.gov/ifw/hunting_trapping/pdfs/lynx_brochure_updated_october_2009_final.pdf). IFW has also set-up an incidental lynx capture hotline and requires that all incidentally trapped lynx be reported (http://www.maine.gov/ifw/hunting_trapping/trapping/avoid_lynx.htm). IFW has staff on stand-by to help immobilize, evaluate, collect tissue and/or hair samples, and release, if appropriate, any lynx reported to the hotline. This program has resulted in the successful release of many lynx, uninjured, that were incidentally trapped in northern Maine.

IFW also is responsible for implementing the Maine Endangered Species Act (https://www.maine.gov/ifw/pdfs/listingHandbook.pdf). Although the lynx is not State-listed as threatened or endangered because its population is estimated to exceed the State's listing threshold, it is considered a species of special concern (https://www.maine.gov/ifw/wildlife/pdfs/Canada_Lynx_2011.pdf). IFW works collaboratively with the Service to conduct research and monitor lynx populations and habitats. These efforts are expected to continue to benefit lynx in Unit 1 regardless of critical habitat designation.

Unit 2: Northeastern Minnesota

Trapping and hunting of lynx has been prohibited in Minnesota since 1984. Within existing and proposed critical habitat in the northeast part of Minnesota, the State Department of Natural Resources (DNR) has identified a specific "Lynx Management Zone" (LMZ) for which it has promulgated and enforces special trapping regulations for other furbearers in lynx habitat. The DNR has modified trapping regulations with the LMZ to minimize the incidental take of lynx during the legal trapping of other furbearers. The regulations address specific trap types and sets, prohibit the use of certain baits and visual attractants, and require reporting of any

incidentally trapped lynx to DNR conservation officers within 24 hours (pages 52-54 at: http://files.dnr.state.mn.us/rlp/regulations/hunting/2013/full_regs.pdf).

Like Maine, Minnesota has a State Endangered Species Statute which requires that the Minnesota DNR adopt rules designating species meeting the statutory definitions of endangered, threatened, or species of special concern. The Statute also authorizes the DNR to adopt rules that regulate treatment of species designated as endangered and threatened. Also like Maine, Minnesota has designated the lynx a species of special concern (http://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf), and coordinates with the Service and other agencies to conduct research and monitor lynx populations and habitats. These efforts are expected to continue to benefit lynx in Unit 2 regardless of critical habitat designation.

Unit 3: Northeastern Idaho and Northwestern Montana

The harvest of lynx was prohibited in Idaho and Montana in 1996 and 2000, respectively. Both States participate in the CITES Export Program for bobcats, and both have promulgated and enforce special regulations for the legal trapping of other furbearers in areas occupied by lynx.

In its trapping regulations, Idaho Fish and Game (IFG) provides information on how to distinguish between bobcats and lynx and provides guidelines to reduce injury and minimize non-target catches, including lynx (http://fishandgame.idaho.gov/public/docs/rules/uplandFur.pdf). Guidelines recommend (1) a minimum 8-pound pan tension on foothold traps set for wolves, (2) specific trap types and sets for other furbearers, and (3) bait and habitat considerations when making sets. Trappers are also required to contact IFG or local sheriff's offices to assist with the safe release of incidentally trapped lynx.

Likewise, to minimize the incidental capture of lynx, Montana Fish, Wildlife, and Parks (MFWP) (1) prohibits the use of lethal (non-relaxing) snares for bobcats, (2) specifies the types of sets that may be used for marten, fisher, and wolverine (though wolverine trapping is currently prohibited pending the Service's final determination on whether it will be listed under the Endangered Species Act), (3) requires a minimum 8-pound pan tension on foothold traps set for wolves, and (4) requires that any incidentally trapped lynx must be released unharmed if possible and reported to MFWP (http://fwp.mt.gov/hunting/planahunt/huntingGuides/furbearer/).

Neither Idaho nor Montana have State endangered species programs, but the efforts of IFG and MFWP to minimize incidental capture of lynx are expected to continue to benefit lynx in Unit 3 regardless of critical habitat designation.

Unit 4: Northcentral Washington

The harvest of lynx was prohibited in Washington in 1991, and the lynx was designated a State Endangered Species in 1993. Under the State's Endangered Species Program, the Washington Department of Fish and Wildlife (DFW) developed a Lynx Recovery Plan (http://wdfw.wa.gov/publications/00394/) and a Status Report (http://wdfw.wa.gov/publications/01521/), and it prepares Annual Reports to update population and habitat information for the species. The DFW also coordinates with the Service and other agencies to conduct research and monitor lynx populations and habitats. Additionally, the use of body-gripping traps (foot-hold, conibear, snares, etc.) for trapping other furbearers is prohibited in Washington (except for damage control or nuisance wildlife, which requires special permits). This avoids the potential for lynx to be incidentally captured in traps set legally for other animals. These regulations are expected to continue to benefit lynx in Unit 4 regardless of critical habitat designation.

Unit 5: Southwestern Montana and Northwestern Wyoming

See Unit 3, above, for summary of Montana's special trapping regulations to minimize incidental take of lynx. Lynx in Wyoming were offered full protection from trapping and hunting beginning in 1973. The Wyoming Game and Fish Department (WGFD) also participates in the CITES Export Program for bobcats. Although neither Montana nor Wyoming has State Endangered Species Programs, the efforts of MFWP and WGFD to prohibit trapping for lynx and to minimize the potential for incidental trapping of lynx during legal trapping for other furbearers are expected to continue to benefit lynx in Unit 5 regardless of critical habitat designation.

Federal Agencies and Other Project Proponents that are Likely to Consult with the Service under Section 7 absent the Critical Habitat Designation

In the baseline scenario, section 7 of the Act requires Federal agencies to consult with the Service to ensure that any action authorized, funded, or carried out will not likely jeopardize the continued existence of the Canada lynx. Some of the Federal agencies and projects that would likely go through the section 7 consultation process whether or not critical habitat is designated are described below.

The vast majority of Federal lands within the range of the lynx DPS are managed by the USFS, NPS, and BLM. These agencies already consult under section 7 on lands proposed for critical habitat as well as lands not proposed, but where lynx "may occur." Any vegetation management (timber harvest, pre-commercial thinning, etc.) or other project (roads or trails, visitor services developments, commercial development [e.g., new ski areas, tour operations], etc.) pursued on these lands that could include vegetation impacts or result in habitat fragmentation within lynx

foraging habitat (i.e., snowshoe hare habitat) currently require section 7 consultation (because all proposed critical habitat areas are occupied by lynx) and will continue to require consultation regardless of critical habitat designation.

Other Federal agencies that currently consult under section 7 because they fund or permit projects in areas where lynx are known to or may occur include the Corps of Engineers (Corps), U.S. Customs and Border Protection, Bureau of Indian Affairs (BIA), Federal Highway Administration (FHA), Federal Aviation Administration (FAA), Federal Energy Regulatory Commission (FERC), Natural Resources Conservation Service (NRCS), Farm Service Agency (FSA), Department of Defense (DOD) - National Guard, Rural Development, General Services Administration (GSA), Department of Housing and Urban Development, USDA Wildlife Services, Department of Energy, EPA, Rural Utilities Service, Federal Railroad Administration, Indian Health Service, Bureau of Reclamation (BOR), Economic Development Administration, National Oceanic and Atmospheric Administration, Office of Surface Mining, and the National Telecommunications and Information Administration.

Although some of these agencies may delegate section 7 coordination to their permittees (e.g., Federal Highways to State transportation/highway departments), section 7 consultation technically is between the Service and the Federal action agency. Therefore, "other project proponents" are unlikely to consult with the Service in the absence of a Federal nexus, and if a nexus exists, consultation is with the Federal permitting or funding (i.e., "action") agency. Other project proponents that may initiate coordination in accordance with section 7 include State wildlife agencies and Tribal entities in states within the range of the lynx DPS, and consultants and other non-Federal entities (see Table 6, below).

With any of these activities, section 7 consultation may conclude informally or formally, depending on whether the Service determines that the activity is or is not likely to adversely affect the lynx or its habitats, although informal consultations substantially outnumber formal consultations. The Service has completed programmatic section 7 consultations or agreements for lynx with some agencies (e.g., with FHA and Maine Department of Transportation, with the NRCS in Maine and Montana, etc.).

Once Critical Habitat is Designated, Will the Outcome of Section 7 Consultations in <u>Occupied Habitat</u> be Different?

What Types of Project Modifications are Currently Recommended or will likely be Recommended by the Service to Avoid Jeopardy (i.e., the Continued Existence of the Species)?

The Service does not anticipate that the outcomes of section 7 consultations for projects proposed in areas occupied by lynx will be different after critical habitat is designated (see ADVERSE MODIFICATION ANALYSIS, below).

Across the range of the lynx DPS, most recommended conservation measures and project modifications implemented via section 7 consultations are aimed at:

(1) avoiding/minimizing impacts to lynx foraging habitats (i.e., areas capable of supporting high densities of snowshoe hares);

(2) maintaining or improving the spatial and temporal mosaic of forest successional stages across landscapes;

(3) minimizing new road building or road upgrades that would increase traffic speed or volume in areas occupied by lynx; and

(4) minimizing project footprints in lynx/hare habitats.

Specific recommendations may include avoiding vegetation treatments (timber harvest, pre-commercial thinning, etc.) in snowshoe hare habitats, avoiding treatments which may preclude of hinder the future development of lynx/hare habitat, promoting treatments that may retain lynx/hare habitat that is beginning to diminish as a result of forest succession (i.e., stem-exclusion or self-pruning stages), and encouraging the maximum retention of lynx/hare habitats in secondary and peripheral areas. Others include coordinating with the Service to identify opportunities to provide high-quality lynx habitat, restoring natural plant communities wherever practicable, and removing and reclaiming any roads as soon as they become unnecessary for ongoing activities. Others recommendations may include gating new roads to prevent public access, clearing rights-of-way, considering crossing structures (box culverts) for highway projects, revegetating forest clearings and promoting shrubby powerline right-of-way corridors. Yet others are aimed at monitoring and include reporting any sightings of lynx to the Service including date and location, and documenting and reporting to the Service any known lynx mortalities.

Table 4: Conservation Plans or other Protections Afforded to Lynx

Unit	Conservation Plan/Protection Measure	Area Covered by Plan/Measure	All or Some Activities Covered?	Recommend Changes after Critical Habitat Designated?	Major Changes?
1	NRCS Healthy Forest Reserve Program	943.2 mi^2; 8.5% of the total proposed critical habitat in Unit 1	Some: road building/ improvement, silviculture (timber mgmt.), forest land maintenance, large developments	None	108 mi^2 withdrawn from HFPR; 519 mi^2 of new lands proposed for CH (not in 2009 CH; not in HFRP) – but no major sec 7 changes as these are occupied by lynx
2	LCAS, USFS-USFWS Lynx Conservation Agreement, Superior NF Amended Forest Plan	3,864 mi^2; 47.4% of the total proposed critical habitat in Unit 2 (all Federal lands in Unit 2)	All activities in areas occupied by lynx or where lynx may be present – timber mgmt., road-building, recreation, other development	None	No
3	LCAS, USFS-USFWS Lynx Conservation Agreement, BLM-USFWS Lynx Conservation Agreement, NRLMD, Amended Forest Plans, MTDNRC HCP	8,924 mi^2; 85.2% % of the total proposed critical habitat in Unit 3 (all Federal lands in Unit 3, plus MTDNRC lands covered by HCP)	All activities in areas occupied by lynx or where lynx may be present – timber mgmt., road-building, recreation, other development	None	272 mi^2 of MTDNRC lands covered by HCP may be excluded from CH that were not excluded from 2009 designation; minor adjustments to mapped lynx habitat in several MT NFs
4	LCAS, USFS-USFWS Lynx Conservation Agreement, BLM-USFWS Lynx Conservation	1,994 mi2; 99.7% of the total proposed critical habitat in Unit 4 (all Federal lands in Unit 4, plus	All activities in areas occupied by lynx or where lynx may be present – timber mgmt., road-building, recreation, other development	None	Although CH here (2009) was enjoined by the court in 2010, lynx occur throughout the area currently

	Agreement, WADNR Lynx Mgmt. Plan	WADNR lands covered by Lynx Plan)			proposed, so it has been subject to sec 7 consultation
5	LCAS, USFS-USFWS Lynx Conservation Agreement, BLM-USFWS Lynx Conservation Agreement, NRLMD, Amended Forest Plans, MTDNRC HCP	9,465 mi^2; 96.9 % of the total proposed critical habitat in Unit 5 (all Federal lands in Unit5, plus MTDNRC lands covered by HCP)	All activities in areas occupied by lynx or where lynx may be present – timber mgmt., road-building, recreation, other development	None	259 mi^2 of newly proposed BLM and NPS lands, but no change in sec 7 as lynx may occur in/occupy these areas

INCREMENTAL IMPACTS ANALYSIS

ADVERSE MODIFICATION ANALYSIS

Explain Additional Recommendations the Service Will Make When Considering Both Jeopardy and Adverse Modification.

What Federal Agencies or Project Proponents are likely to Consult with the Service under Section 7 with Designation of Critical Habitat? What Kinds of Additional Activities are likely to Undergo Consultation with Critical Habitat?

We anticipate no change in the Federal agencies or project proponents likely to consult under section 7 because all areas proposed for critical habitat designation are currently occupied by lynx and, therefore, consultation is already required in these areas when a Federal nexus exists. Also, because all lands proposed for critical habitat are considered occupied by lynx populations, critical habitat designation is not expected to generate significant new section 7 consultation needs or associated administrative costs. That is, because consultation is already necessary when a Federal nexus exists in areas occupied by lynx or where lynx may occur, and because Service consultation under the jeopardy standard already focuses on impacts to the most limiting aspect of lynx population dynamics (i.e., foraging habitat = snowshoe hare habitat), critical habitat designation is not expected to result in additional consultation needs.

It is not anticipated that additional activities would newly require consultation due to critical habitat designation because those activities would already require consultation if they occur in occupied areas or areas where lynx may occur, and there is a Federal nexus. Additionally, critical habitat has been designated since 2009 in most of the areas currently proposed for designation. The few additions to the 2009 designation currently proposed in Maine and Wyoming, and the re-designation of Unit 4 in Washington State (the latter of which was enjoined by the court in 2010), do not differ significantly from the 2009 designation. Consultation in these areas has been ongoing since the lynx was listed in 2000 and since critical habitat was designated in 2009.

Provide Examples Representing Typical Recommendations Applicable across a Broad Suite of Projects. Where Significant Uncertainty Exists, Provide Ranges of Potential Outcomes.

See *Project Modifications to Avoid Jeopardy*, above. No additional or different recommendations are anticipated due to critical habitat designation.

What Types of Project Modifications Might the Service Make during a Section 7 Consultation to Avoid Destruction or Adverse Modification of Critical Habitat that are Different than those for Avoiding Jeopardy?

The Service does not anticipate recommending conservation measures or project modifications beyond those described above for consultations under the jeopardy standard because those consultations already focus on avoiding impacts to lynx habitats, especially foraging habitats, which are thought to be most limiting to lynx populations within the DPS.

If the Area is only Seasonally or Sporadically Occupied Would the Outcome of the Consultation be the Same if Occupied? - **NA**

What Project Proponents are Likely to Pursue HCPs under Section 10 after the Designation of Critical Habitat?

Currently, no project proponents have proposed developing HCPs after or because of the proposed revised critical habitat designation. In Unit 1 (Maine), the Irving Company proposes a commercial and residential development plan for the Fish River Lakes region, within the newly-proposed critical habitat area near Van Buren, for which the company may pursue a HCP. It is also possible that wind project proponents considering development within proposed critical habitat in Maine may pursue HCPs, although none are currently proposed. Prior to the 2009 critical habitat designation, Plum Creek Timber Company initiated development of an HCP and Forest/Lynx Management Plan for its private commercial timberlands in Maine. However, work on that HCP has been suspended for several years and there is no indication it will resume because of or after the designation of revised critical habitat as currently proposed.

In addition to the ongoing effort to develop an HCP to cover potential incidental take of lynx related to legal trapping of other furbearers in Maine (see *Conservation Plans/Efforts* and *State Wildlife Laws*, above), the Service and the Minnesota DNR developed a draft HCP for trapping in Minnesota and will be working on completing the HCP and associated NEPA analysis as funding permits. Proposed or final critical habitat designation is not expected to have a bearing on these efforts. No other new HCPs are proposed or anticipated within the other proposed critical habitat units.

UNOCCUPIED AREAS – NONE ARE PROPOSED FOR DESIGNATION

Does the Designation Include Unoccupied Habitat that was not Previously Subject to the Requirements of Section 7? - NO

Identify Unoccupied Units or Subunits. - **NA**

Provide Information about the Likelihood that Project Proponents Would Have Known about the Potential Presence of the Species absent Critical Habitat. - **NA**

Describe Typical Project Modifications the Service Will Recommend when Considering Adverse Modification. - **NA**

Provide Examples Representing Typical Recommendations Applicable Across a Broad Suite of Projects. Where Significant Uncertainty Exists, Provide Ranges of Potential Outcomes. - **NA**

BEHAVIOR CHANGES

Will the Designation Provide New Information to Stakeholders Resulting in Different Behavior?

Describe Actions Taken by Stakeholders as a Result of Critical Habitat.

Few changes are anticipated in stakeholder actions or behavior because all proposed critical habitat is in areas occupied by lynx populations, and because most was previously designated as critical habitat in 2009. In newly-proposed areas in Maine and Wyoming, some stakeholders may be more likely to seek coordination/consultation early with the Service because of increased awareness of lynx presence, but the proposed designation will not result in new areas where consultation would be necessary (i.e., that would *not* require consultation in the absence of critical habitat).

Describe how Local Agencies Might Change Project Requirements.

No changes are anticipated.

How Many New Consultations may Result from the Critical Habitat Alone?

No new consultations are expected to result from critical habitat designation alone.

How Many New HCPs may be Undertaken or Reinitiated as a Result of the Critical Habitat Designation Alone?

As described above, commercial/residential and wind power developers in Maine may pursue HCPs for activities within proposed critical habitat, though not directly as a result of the current critical habitat proposal. Likewise, no HCPs are expected to be reinitiated as a result of the proposed critical habitat designation.

Will there be Changes in Permitting Processes by Other State or Local Agencies or Other Land Managers?

None are anticipated.

ADMINISTRATIVE EFFORTS

How Much Administrative Effort does or will the Service Expend to Address Adverse Modification in its Section 7 Consultations with Critical Habitat? Estimate the Difference Compared to Baseline.

As described above, because consultation is already necessary when there is a Federal action/nexus in areas occupied by lynx or where lynx may occur, and because Service consultation under the jeopardy standard already focuses on impacts to the most limiting aspect of lynx habitat (i.e., foraging habitat = snowshoe hare habitat), critical habitat designation is not expected to result in additional consultation needs. Therefore, the Service anticipates little (less than 5 percent) or no increase in administrative effort to address adverse modification if critical habitat is finalized.

PROBABLE PROJECTS

Table 5: Known probable projects that may affect the critical habitat designation or require consultation under section 7 of the Act

Unit	Known/Probable Projects in Proposed CH	Ownership	Timing	Examples of Recommended Conservation Measures/Project Modifications	Consultation Required Absent CH?
1	Fish River Lakes Commercial – Residential Development	Irving Co.	Unknown[1]	Limit footprint and road building, reduce traffic, mitigate habitat loss	Yes
1	Plum Creek Moosehead Lake Development	Plum Creek	Unknown	Limit footprint and road building, reduce traffic, mitigate habitat loss	Yes
1	Bald Mountain Mining[2]	Irving Co.	Unknown	Minimize footprint, mitigate habitat loss	Yes
1	Wind Energy	Unk./varies	Unknown	Minimize footprint, mitigate habitat loss	Yes
1	East-West Highway	Unk./varies	Unknown	Minimize footprint, fencing, crossing structures, maintain road clearing, mitigate habitat loss	Yes
1	Other Transportation – Hiway Projects/ Improvements	Unk./varies	Unknown	Minimize footprint, fencing, crossing structures, maintain road clearing, mitigate habitat loss	Yes
2	Northmet Project (Proposed Copper-Nickel Mine)	Private and USFS[3]	Unknown	Limit footprint and road building, reduce traffic, mitigate habitat loss	Yes
2	Transmission Towers	Unk./varies	Unknown	Minimize footprint, mitigate habitat loss	Yes
2	Oil Pipeline Upgrade	Unk./varies	Unknown	Minimize footprint, mitigate habitat loss	Yes
2	Ongoing Federal Management Activities (e.g., timber harvest; fire mgmt.; energy exploration, development and transmission; mining	USFS, NPS, BLM	Year-round, ongoing	See *Project Modifications to Avoid Jeopardy*, above, for examples of recommended modifications.	Yes

	and mineral exploration; recreation; transportation; land exchanges, etc.)				
3	Ongoing Federal Management Activities (e.g., timber harvest; fire mgmt.; energy exploration, development and transmission; mining and mineral exploration; recreation; transportation; land exchanges, etc.)	USFS, NPS, BLM	Year-round, ongoing	See *Project Modifications to Avoid Jeopardy*, above, for examples of recommended modifications.	Yes
4	Ongoing Federal Management Activities (e.g., timber harvest; fire mgmt.; energy exploration, development and transmission; mining and mineral exploration; recreation; transportation; land exchanges, etc.)	USFS, NPS, BLM	Year-round, ongoing	See *Project Modifications to Avoid Jeopardy*, above, for examples of recommended modifications.	Yes
5	Ongoing Federal Management Activities (e.g., timber harvest; fire mgmt.; energy exploration, development and transmission; mining and mineral exploration; recreation; transportation; land exchanges, etc.)	USFS, NPS, BLM	Year-round, ongoing	See *Project Modifications to Avoid Jeopardy*, above, for examples of recommended modifications.	Yes

[1] Proposal has been submitted to Maine Land Use Policy Commission.

[2]Will require a change in State mining rules.

[3] Involves a land exchange with Superior National Forest.

Land Use Sectors within the Critical Habitat Designation Area

- What economic activities may be impacted by the designation of critical habitat?
    - Agriculture, Border Protection, Conservation/Restoration, Development, Fire Management, Forest Management, Mining, Oil and Gas, Recreation, Renewable Energy, Silviculture/Timber, Transportation, Tribes, Utilities.
- Is there a Federal nexus for each of these economic activities?

Unit 1 is mostly private commercial timberlands and the activities thereon usually do not have a Federal nexus. Therefore, although timber harvest and associated silvicultural management on these lands can and does impact lynx habitat, consultation under section 7 is not required. Only about 9 percent of these private lands are enrolled in the NRCS HFRP, which requires management in accordance with the Service's "Canada Lynx Habitat Management Guidelines for Maine." Other activities in this unit (for example wind energy development, public roads, energy transmission lines, etc.) would likely have a Federal nexus.

Most lands in proposed critical habitat units 2, 3, 4, and 5 are Federal, with most consisting of National Forest System lands and smaller areas of NPS and BLM lands. Activities on these lands include timber/silvicultural management, roads, trails, recreation, minerals and energy exploration, development and transmission. All these activities have a Federal nexus and therefore undergo consultation with the Service.

Consultation History within the Critical Habitat Designation Area

Table 6 below summarizes the consultation histories for lynx from Fiscal Year 2009 to present (October 2008 – January 2014) to present among Service field offices that cover the areas proposed for critical habitat designation. Some offices include "technical assistance" as a part of the consultation process, and such events are summarized for those offices in the table. See *Project Modifications to Avoid Jeopardy*, above, for examples of recommended modifications.

Table 6: Consultation History for Lynx from Service Offices with Proposed Critical Habitat – Oct. 2008 – Jan. 2014

Service Field Office	Formal Consults Including Lynx	Informal Consults Including Lynx	"Technical Assists" Including Lynx	Action Agencies
Maine FO (Unit 1)	2	128	48	Corps of Engineers (Corps), U.S. Customs and Border Protection, State of Maine, Bureau of Indian Affairs (BIA), Federal Highway Administration (FHA), Federal Aviation Administration (FAA), Federal Energy Regulatory Commission (FERC), Natural Resources Conservation Svc (NRCS), Penobscot Indian Nation, Passamaquoddy Tribe of Maine, Houlton Band of Maliseet Indians of Maine, Farm Service Agency (FSA), Department of Defense (DOD) - National Guard, Rural Development, General Services Administration (GSA), Department of Housing and Urban Development, USDA Wildlife Services, Other (Consultant, Non-Fed Agency)
Minnesota FO (Unit 2)	9	107	66	USDA, Forest Service, FHA, FAA, FCC, FSA, Minnesota Chippewa Tribe: Bois Forte Band, Department of Energy, EPA, FERC, BIA, Corps, BLM, FEMA, NPS, NRCS, Rural Utilities Service, Federal Railroad Administration, Indian Health Service, Bureau of Reclamation (BOR), Minnesota Pollution Control Agency, MN Dept. of Natural Resources, Economic Development Administration, National Oceanic and Atmospheric Admin., Other (Consultant, Non-Fed Agency)
Montana FO (Units 3 and 5)	38	195	NA	Forest Service, NRCS, FHA, BLM, BIA, State of MT, Office of Surface Mining, Corps, BOR, National Telecommunications and Information Admin., FCC, FERC, Rural Development, NPS, FWS

				(Refuges) Other (Consultant)
Washington FO (Unit 4)	0	195	NA	Forest Service, BLM, NPS, FHA, Washington DOT, USDA Wildlife Services
Wyoming FO (Unit 5)	8	77	33	Forest Service, NPS, BLM, FCC, FERC, FHWA, FWS (Refuges), Corps, State of Wyoming, Other (Consultant)
Totals	57	702	-	-

CONCLUSION

Because (1) section 7 consultation under the jeopardy standard already focuses on avoiding impacts to lynx foraging (i.e., snowshoe hare) habitats; (2) Federal land managers, responsible for more than half of proposed critical habitat, have largely formally amended management plans to avoid/minimize impacts to lynx foraging habitats; and (3) critical habitat has been designated since 2009 on most of the lands currently proposed for revised designation, the Service again anticipates that the incremental effects of the currently-proposed designation will be minor and largely administrative.