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In Reply To:
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To: State Management Team

From: State Director

Subject: Programmatic Biological Assessment

DD: 12/19/03

The Bureau of Land Management (BLM) has been asked by the Fish and Wildlife Service (FWS) to participate in developing and signing a Programmatic Biological Assessment (BA) for activities that are "Not Likely to Adversely Affect" certain listed terrestrial species. The Programmatic BA will serve as a "screen" for streamlining the consultation process.

This BA was drafted by the westside Level 1 Terrestrial Team. The Level 1 Team is a group of field biologists from the BLM, Forest Service and FWS that was formed to develop methods to increase the efficiency of the consultation process.

This Instruction Bulletin (IB) is to inform the Field Offices about this Level 1 Terrestrial Team product. The assessment is attached so Field Offices can review and become familiar with its purpose and content. Because the BA covers multiple Field Offices, the consultation will be conducted at the State Office level. However, the application of the screens and documentation for individual projects will be completed by Field Offices on a project-specific basis.

Attachment 1 is a Question and Answer sheet discussing questions we anticipate you may have about the Programmatic BA. Attachment 2 is a draft of the Programmatic BA. The attached version has not been edited yet, and some of the text will be changed to be specific to the BLM's regulations, manuals, policies and procedures.

We want to answer any questions or concerns prior to finalization and signature. These should be addressed to Gayle Sitter, Lead Fisheries and T & E species biologist at the Montana State Office (406-896-5024), by December 19, 2003.

Signed by: A. Jerry Meredith, Acting

Authenticated by: Merry Prestridge (MT923)

2 Attachments

- 1-Question and Answer Sheet (1 p)
- 2-Draft of Programmatic BA (51 pp)

Distribution

Asst. FM Harve-1
Asst. FM Glasgow-1

Q & A's about the Programmatic Biological Assessment Document

1. What Actions are covered by this Programmatic BA?

This BA lists activities with appropriate project design features that the Level 1 team has pre-determined are “Not Likely to Adversely Affect” grizzly bears, bald eagles, wolves and lynx. The list of activities with sideboards is referred to as a screen. It will cover new projects in the Dillon, Butte, Missoula, Lewistown, Malta, Miles City, and Billings Field Offices.

2. What is the purpose of this document?

This document is a tool for a quicker process to complete consultations on individual projects. Projects that fit the screens will automatically receive concurrence from the FWS with a minimum of paperwork.

3. How does this affect my management?

In most cases we are already managing under these project design guidelines. This programmatic does not require new guidelines to be imposed on projects.

4. Are the determinations from the screens absolute?

No. The BLM always has the option to move the project evaluation to a formal consultation. Also, even if the project may not fit the screens, it can still receive a “not likely to adversely affect” determination. It just means the consultation and the required paperwork will follow the normal consultation process versus the streamlined process.

5. Can my projects exceed the screens?

Yes. It only means the consultation will follow the normal process. The screens will also streamline the process for consultations even if the project doesn't fit the screens. The project will be compared to the screens and the variance from the screen will help select appropriate determination of effects: Not Likely to Adversely Affect or Likely to Adversely Affect.

6. The document refers to Forest Service, is this a USFS product?

No! We are editing the document to be a BLM document and will consult with the FWS from the BLM State Office level after Field Offices have had an opportunity to review and become familiar with the document.

7. How is this related to the Backlog Consultation?

Backlog consultation deals with land use plan level consultations. This document concerns current implementation of individual projects.

**PROGRAMMATIC BIOLOGICAL ASSESSMENT
FOR ACTIVITIES THAT ARE
NOT LIKELY TO ADVERSELY AFFECT
LISTED TERRESTRIAL SPECIES**

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I. INTRODUCTION

The purpose of this biological assessment is to describe and analyze the adequacy of screens proposed for use in making determinations for simple, straightforward projects that have insignificant or discountable effects on listed terrestrial species. The terrestrial Level 1 team has developed this assessment in order to facilitate consultation. Section 7 (a) (2) of the Endangered Species Act of 1973 as amended requires all federal agencies to review actions authorized, funded, or carried out by them to ensure such actions do not jeopardize the continued existence of listed species. The listed species analyzed in this document are: the bald eagle (*Haliaeetus leucocephalus*), the gray wolf (*Canis lupus*), the grizzly bear, (*Ursus arctos*) and the Canada lynx (*Lynx canadensis*). The area of analysis is the State of Montana where these species are known or suspected to occur and includes:

- National Forests: Custer, Gallatin, Helena, Lewis and Clark, Flathead, Lolo, Beaverhead-Deerlodge, Bitterroot, and Kootenai National Forests
- BLM Field Offices: Missoula, Butte, Lewistown, Dillon, Billings, Miles City, Malta

II. PROPOSED ACTION

The Proposed Action implements a screening process to determine which proposed projects properly fit within a programmatic approach to consultation on simple, straightforward projects that would result in a ‘not likely to adversely affect’ determination. The screening process also provides rationale for ‘no effect’ projects; however, these are not subject to consultation and will not be discussed hereafter. Appendices A through C contain the species-specific screens.

The process described in the attached screens follows and compliments the National Fire Plan consultation strategy. The screens developed for the National Fire Plan process are designed to facilitate consultation for National Fire Plan projects. The screens presented here consider the effects of other activities as described in more detail below. However, this process could also be used for fire-related projects.

If the proposed actions are fully compliant with the wildlife screens described in the attached appendices and the screens lead to a ‘not likely to adversely affect’ conclusion, the actions will be covered for terrestrial species by a programmatic concurrence from the U.S. Fish and Wildlife Service. These proposed actions could proceed once the appropriate documentation is in place. The documentation process and form are described fully in Appendix E. It is possible that even though an action is identified in the screen, standard consultation procedures may still be required if there is ambiguity surrounding the proposed action. A qualified biologist is responsible for implementing the screening process and determining the appropriate course of action.

If the programmatic screening concurrence process does not apply, the standard¹ section 7 process is required.

¹ Standard consultation refers to the process whereby the action agency biologist commences dialogue with U.S. Fish and Wildlife Service (Service) counterparts to determine the appropriate consultation procedures. Typically this involves contact to apprise the Service of the effects of an ongoing project and to reach consensus on such an effect and to determine if informal consultation is sufficient or if the project should proceed to formal consultation. Upon agreement of the respective consultation procedure, the action agency biologist will submit the appropriate request and documentation to the Service for concurrence or a biological opinion.

Types of projects covered by the screens in this programmatic biological assessment may vary depending on the species under analysis. To determine whether a proposed project is covered by this programmatic biological assessment, the project needs to be compared against those projects identified in each species-specific screen. The following criteria describe overall considerations and species-specific considerations and apply to the proposed projects that meet the criteria described in the attached wildlife screens. A brief summary of each project by species follows. See the respective appendices for more detail.

Conditions common to all project types

- Project types covered in this biological assessment are for those Forest Service or BLM projects where the determination of effect clearly leads to a ‘not likely to adversely affect’ (NLAA) determination. More complex projects for which species concerns are not fully covered in this programmatic biological assessment must proceed through the standard consultation process.
- If one species does not meet the screening criteria, then standard consultation procedures need to be followed for all species. However, it is possible to use the screens as a documentation process for those species that meet the screen criteria and include this documentation alongside the analysis for the species that do not meet the screen criteria.
- As always, cumulative effects must be considered; cumulative effects findings may cause the project to require standard consultation processes.
- Application of the screens and determination of effects for compliance with Section 7 must be accomplished by a qualified wildlife biologist as defined by Forest Service Manual 2672.42.
- In no case does the programmatic biological assessment cover any project that has the potential to cause or increase the likelihood of take as defined by the U.S. Fish and Wildlife Service’s regulations.

Projects Specific to Grizzly Bears

Projects with the potential to affect grizzly bears must pass through 2 screens to determine compatibility with the programmatic biological assessment. A detailed discussion of projects and process elements are found in Appendix A. All projects in Table 1 must successfully comply with the following criteria.

- The area must be in compliance with the appropriate access management direction.
- Human foods, livestock feed, garbage, and other attractants must be managed by the application of an adequate ‘food storage rule’ similar to the Northern Continental Divide (NCDE) or Yellowstone food store orders. If no specific rule exists for the area, use of either the Yellowstone or NCDE order will be considered adequate.
- Projects that involve seeding or planting of grasses, forbs, or shrubs must do so in a manner that will tend not to attract bears into areas where increased mortality risk or interaction between bears and people is likely.

Table 1 identifies the project types that are described in more detail in Appendix A. The project types identified below are presented to display the full range of projects considered. Not all of the project types are eligible for this programmatic assessment since some are either ambiguous or may result in an adverse effect. However, they are listed below and in the screens to highlight that they have been considered and to provide guidance on the appropriate consultation pathway.

Table 1. Projects included in the biological assessment specific to grizzly bears*

Timber harvest	Forest Products
Mechanical	Habitat Restoration
Roads and Road Maintenance	Prescribed Fire
Silviculture Activities	Watershed Restoration
Range	Weed Control
Recreation	

**See Appendix A for definitions.*

The scope of this programmatic biological assessment applies to areas where grizzly bears are expected to occur; i.e. it's not limited to Recovery Zone boundaries but rather includes the expanded occupied habitat. Also, if incidental take is an issue (e.g. degraded baseline) and an incidental take permit has not been issued, then the project must proceed to standard consultation.

Projects Specific to Bald Eagles

Project types that are covered under this programmatic biological assessment for bald eagles are not necessarily specific in nature as they are for grizzly bears. Rather, in most cases, the scope and intensity of a particular project will determine if it is covered in this assessment. Table 2 describes the over all project or activity type that is covered in the biological assessment. As with grizzly bears, some of the project types may not be eligible for the programmatic assessment. Appendix B contains more details including specific activity components.

Table 2. Projects included in the biological assessment specific to bald eagles*

Human Activity in Zones I and II	Habitat Alteration – All Zones
Permanent Development in Zones I and II	Structures – Zone II and III and Foraging Areas
Repeated Flights – Zones I and II	Projects in Foraging Areas

**See Appendix B for definitions*

Projects Specific to Gray Wolves

Projects specific to wolves that are covered under the programmatic biological assessment are not specifically identified but rather general overall categories are identified within which the effect determinations will drive whether a project is included programmatically. Non-essential experimental populations are not considered in this biological assessment.

Projects for which there may be an effect to wolves are those that have a relationship to den or rendezvous sites. Any project may be covered by the programmatic assessment if it has the following components:

- Meets Recovery Plan direction for den and rendezvous sites (i.e. no projects/activities within 1 mile of den or rendezvous sites scheduled to occur between 4/15 and 6/30)

- Does not impact the prey base
- Does not negatively increase mortality risk to wolves
- Has no livestock grazing concerns OR maintains existing or reduces existing livestock grazing with no history of depredation OR changes livestock class to a less vulnerable species (sheep to cattle, cattle to horse, yearlings to cow/calf) OR includes outfitter guide horse grazing

Projects Specific to Lynx

Project types specific to lynx that are covered under this programmatic biological assessment include those discussed in and in compliance with the Lynx Conservation and Assessment Strategy (LCAS). While it is recognized that the Northern Rockies Lynx Amendment is in preparation, the project types, as they differ from the LCAS, are not addressed in this assessment because of the draft nature of that document. Additional projects included in this programmatic biological assessment are those either not specifically addressed through standards or identified in the LCAS but that meet the intent of LCAS standards and guidelines.

Table 3 identifies the project types that the LCAS discusses. The project types identified below are presented to display the full range of projects considered. Not all of the project types are eligible for this programmatic assessment since some are either ambiguous or may result in an adverse effect. However, they are listed below and in the screens to highlight that they have been considered and to provide guidance on the appropriate consultation pathway. Table 4 identifies those additional project types not specifically identified in the LCAS but that may have effects to lynx. Overlap exists in project types between Tables 3 and 4; however the descriptions differ based on whether they are specifically addressed in the LCAS or represent broad categories that meet the intent of the LCAS but are not specifically addressed through standards. Project types identified in both Tables 3 and 4 are described in more detail in Appendix D.

Table 3. Projects included in the biological assessment specific to lynx based on the LCAS

Timber Management	Range
Roads and Road Maintenance	Recreation
Silviculture Activities	Prescribed Fire

Table 4. Projects included in the biological assessment specific to lynx based not included in the LCAS

Roads and Road Maintenance	Prescribed Fire
Silviculture Activities	Other Special Uses
Recreation	Surveys
Forest Products	Lynx Capture and Handling
Habitat Restoration	

III. SPECIES ASSESSMENT

Grizzly Bears

Distribution

The historic range of the grizzly bear (*Ursus arctos horribilis*) in the continental United States extended from the central Great Plains, west to California, and south to Texas and Mexico. Between 1800 and 1975, grizzly bear populations in the lower 48 states declined from over 50,000 to less than 1,000. As European settlement expanded westward, the grizzly was extirpated from most of its historical range.

Five areas in the lower 48 states currently support grizzly bear populations; these areas are located in Montana, Wyoming, Idaho, and Washington and include: the Yellowstone Ecosystem, Northern Continental Divide Ecosystem, Cabinet-Yaak Ecosystem, Selkirk Ecosystem, and Northern Cascades Ecosystem. These areas represent less than two percent of the grizzly's former range (USDI 1993).

The grizzly bear was listed as threatened under ESA in 1975 (USDI 1993).

Life History

Grizzly bears are in the bear family (Ursidae) and are generally larger than black bears and can be distinguished by having longer front foot claws (two to four inches); a distinctive shoulder hump (muscle mass for digging); rounded ears that are proportionately smaller than the head; and a dished-in profile between the eyes and end of the snout. A wide range of coloration from light brown to nearly black is common. Guard hairs are often paled at the tips; hence the name "grizzly." Spring shedding, new growth, nutrition, and climate all affect coloration. In the continental United States, the average weight of grizzlies is 400 to 600 pounds for males and 250 to 350 pounds for females. Grizzly bears are long-lived and many individuals live over 20 years. Adult bears are individualistic in behavior and normally are solitary wanderers. Females with cubs and bears defending food supplies are common causes of confrontation between humans and bears (USDI 1993).

Home ranges of adult bears may overlap. The home ranges of adult male grizzlies are generally two to four times larger than adult females. The home ranges of females are smaller while they have cubs, but increase when the cubs become yearlings. Home ranges vary in relation to food availability, weather conditions, and interactions with other bears. Home ranges are larger in the Yellowstone Ecosystem compared to the more productive habitats in the northern ecosystems (USDI 1993).

Age of first reproduction and litter size varies and may be related to nutritional state. Age at first reproduction averages five and one-half years of age (three and one-half to eight and one-half years of age). Reproductive intervals for females average three years and litter size average two cubs (one to four cubs per litter). The limited reproductive capacity of grizzly bears precludes rapid increases in population. Grizzly bears have one of the lowest reproductive rates among terrestrial mammals. During a female's lifetime, if she has litters of two cubs with a 50:50 sex ratio, and a 50 percent survivorship of young to age 5.5 years, at best she can replace herself with one breeding age female in the first decade of her life (USDI 1993).

Coniferous forest cover is very important to grizzly bears. Ninety percent of aerial radio relocations of 46 radio-collared grizzlies were in forest cover too dense to observe the bear. Dense forests are important for thermal cover, hiding cover, and day beds; most beds are located within six feet of a tree. The importance of open grassy parks with coniferous forest cover has also been documented (USDI 1993).

Grizzly bears excavate dens as early as September or prior to entry in November. Dens are usually dug on steep slopes where wind and topography cause an accumulation of deep snow and where snow is unlikely to melt during warm periods. Dens are generally found at high elevations well away from human activity and development (USDI 1993).

Grizzly bears are opportunistic feeders and will prey or scavenge on almost any available food. Plants with high crude protein content and animal matter are important food items. The search for food has a prime influence on grizzly bear movements. Upon emergence from the den grizzlies move to lower elevations, drainage bottoms, avalanche chutes, and ungulate winter ranges where their food requirements can be met. Throughout spring and early summer grizzlies follow plant phenology back to higher elevations. In late summer and fall, there is a transition to fruit and nut sources, as well as herbaceous materials. This is a general pattern; however, bears will go where they can meet their food requirements (USDI 1993).

Environmental Baseline

The environmental baseline for grizzly bears is described in terms of those parameters that threaten grizzly bears either through human contact and conflict or through reductions in secure habitat. More specifically, parameters that address grizzly/human conflict (e.g. access management, appropriate food storage, and livestock) and vegetation management form the basis against which threats to grizzly bears are measured.

Access Management

Grizzly bear habitat across the region is best described in terms of the availability of large tracts of relatively undisturbed land that provides some level of security from human depredation and competitive use of habitat by humans (including roading, logging, grazing, and recreation) (USDI 1993). To that end, 'effective' habitat is often described in terms of core areas – areas free of motorized access during the non-denning period (IGBC 1994) – for each season of use. Open road and total road densities are important measurements in determining core areas and understanding the extent of habitat security for grizzly bears.

Many studies have found that grizzly bears will generally avoid areas with open roads. Mace and Manley (1993) found that adult grizzly bears used habitat with open road densities greater than 1 mi/mi² less than expected. All sex and age classes of grizzly bears used habitat with total road densities greater than 2 mi/mi² less than expected. Grizzly bears generally adjust to disturbance associated with roads by avoiding the area that in turn results in a reduction in the amount of habitat available to the bears. Roads also provide increased access into previously remote areas that in turn encourages human settlement, recreational use, and other land uses. These activities can increase the frequency of human-bear confrontations and ultimately reduce habitat availability and grizzly populations.

Seasonal habitat use by grizzly bears is also an important consideration in access management. When bears emerge from the den, they tend to search for food in lower elevations, drainage bottoms, avalanche chutes, and ungulate winter ranges (USDI 1993). Throughout the late spring and early summer they move towards higher elevations as food becomes available. Because spring habitat tends to be at lower elevations, increased potential exists for conflict between bears and humans due to greater access into those areas by humans. Roads located in riparian zones, for example, may result in indirect habitat losses through avoidance behavior by bears. Riparian zones are heavily used by grizzlies for feeding and travel corridors (Moss and LeFrance 1987).

Non-motorized trail use may also indirectly reduce the amount of habitat available to grizzly bears. Bears may avoid high use trails (Mace and Waller 1996); although the presence of visual cover may reduce bear response to hikers (McClellan and Shackleton 1989). Several studies have addressed non-motorized recreation activity impacts on grizzly bears (Schleyer et al. 1984, Haroldson and Mattson 1985, Gunther 1984, McLellan and Mace 1985). Overall, bears tended to avoid areas of recreational activity.

Food Storage

Availability of human-related foods can attract bears and cause changes in bear behavior leading to habituated and/or food-conditioned bears. Human food, livestock feed, and garbage all increase the opportunity for grizzly/human conflicts. Oftentimes, habituated and/or food-conditioned bears are removed or killed.

Livestock Grazing

Interactions between livestock and grizzly bears have historically led to the removal of grizzly bears. In several studies, livestock depredation was a leading cause for which a bear was removed and in several instances livestock depredation became a leading cause of nonhunting mortality (Thier and Sizemore 1981, Knight and Judd 1983, Knight et al. 1985, Aune and Stivers 1983). Most livestock depredations have involved sheep (Lee and Weaver 1981, Knight and Judd 1983); however, grizzly bear removals/mortality due to cattle depredation have been reported.

Grizzlies also feed on livestock carcasses (Servheen et al. 1981, Aune and Stivers 1983). Livestock carcasses may be scattered or deposited in 'boneyards'. Improperly situated boneyards may function like garbage dumps, attracting bears to these areas, and increasing human/bear conflicts.

Vegetation Management

Timber Management - Many studies have documented that grizzly bears avoid logged areas, while other studies indicate no changes in grizzly populations as logging pressure increased (Lyon and Basile 1980, Mace and Jonkel 1980). Despite conflicting results as to whether grizzly bear numbers are affected by logging, it appears that their behavior is modified. Timber harvest can affect the quality of grizzly bear food and cover causing bears to modify their use of that area. Timber harvest can also affect grizzly bear habitat by increasing human access into an area.

Fire Management – Management practices that encouraged fire suppression have altered the natural succession of many forests and have resulted, in many cases, in a reduction or elimination of early successional stages. This has had a negative impact on grizzly bear food production (Martin 1983, Holland 1986). Reintroduction of prescribed fire in grizzly bear habitat can be beneficial as long as activities are scheduled during times and seasons of low grizzly bear activity (USDA 1982).

Other Vegetation Management - Suppression of insect outbreaks is a silvicultural tool designed to enhance tree vigor. Suppression often takes the form of aerial application of insecticide. Suppression can indirectly affect army cutworm moths that are an important component of the grizzly bear's diet (White et al. 1998).

Direct and Indirect Effects Analysis

The project types identified in Appendix A have been analyzed relative to the threats to grizzly bears identified in the above environmental baseline. The project types that have an initial determination of 'not likely to adversely affect' are based the following features that result in that determination:

- They occur during seasons and times when grizzly bear use is low (i.e. projects are not scheduled to occur in riparian zones during spring)
- They restrict duration and degree of non-motorized human access
- They do not lead to an increase in motorized access
- They do not reduce availability of core areas
- They do not increase the potential for bears to become habituated and conditioned to human-related foods (i.e. livestock and their feed, garbage)

These features, as incorporated into the project types, have minimal potential for human/grizzly conflict and/or reductions in secure habitat. Project types that do not incorporate these features may lead to adverse effects to grizzly bears and are not a part of this assessment.

Cumulative Effects Analysis

Implementation of the projects that meet the screening criteria for a 'not likely to adversely affect' determination should result in low to no cumulative effects to grizzly bears. The recovery objectives for grizzly bears should still be met although there may be impacts to individual bears due to implementation of the projects described herein and due to impacts from activities on non-federal lands.

Determination of Effects

Use of the screens as proposed would result in projects that may affect but are not likely to adversely affect grizzly bears and would properly be included in the programmatic concurrence from the U.S. Fish and Wildlife Service.

Bald Eagles

Distribution

The bald eagle (*Haliaeetus leucocephalus*) historically ranged throughout North America except extreme northern Alaska and Canada, and central and southern Mexico. Prior to 1940, the eagle population began to decrease. This decrease was directly related to the decline in number of prey species, as well as direct killing and loss of habitat. In 1940, the Bald Eagle Protection Act was passed. The law made it illegal to kill, harm, harass, or possess bald eagles, alive or dead, including eggs, feathers, and nests. As a result of passing this law, the bald eagle began to partially recover (USDI 1996a). The bald eagle was listed as endangered in Montana in 1978. It was reclassified as threatened in 1995.

Subsequent to World War II, the use of dichloro-diphenyl-trichloroethane (DDT) to control mosquitoes became very widespread along coastal and wetland areas. Organochlorides had a drastic affect on bald eagles; as a result of foraging on contaminated food, populations plummeted. It was determined in the late 1960s and early 1970s that DDE, the principle breakdown product of DDT, built up in the fat tissues of adult females. This prevented calcium release necessary to produce strong eggshells, and caused reproductive failure from eggshell thinning (USDI 1996a).

The Secretary of the Interior, on March 11, 1967, listed bald eagle populations south of the 40th parallel endangered under the Endangered Species Preservation Act of 1966. However, the decline continued until DDT was banned from use in the United States on December 31, 1972. Bald eagles were listed endangered under the ESA in 1973. From 1973 through 1995 bald eagles were listed as endangered, but due to cooperative efforts by government agencies and public and private non-government organizations, populations have increased and in 1995 it was down-listed to threatened status.

The bald eagle is presently listed threatened in Idaho, Montana, and North Dakota, but is currently proposed for de-listing (USDI 1996a)

Life History

Bald eagles are in the family Accipitridae. In the adult plumage, the head, neck, tail, and upper and lower tail coverts are white. The remainder of the plumage is dark brown. The bill, cere, iris, and feet are yellow, and the tarsus is featherless. Juveniles and sub-adult plumages are mainly brown, including the head and tail. White or buff mottling is extensive in some individuals, particularly in the under-wing coverts, tail, and abdomen. The bill and cere of the immature are dark brown or gray, the iris is brown, and the feet are yellow. Adults reach sexual maturity at four to six years of age (full adult plumage appears with sexual maturity). Bald eagles are monogamous and believed to mate for life. If a mate is lost a new pair bond is formed, often in the same breeding season (USDI 1996a).

Bald eagles nest almost exclusively in live trees usually within one mile in line of sight of a large river or lake. In Montana, courtship begins in January; egg laying is initiated in early February or as late as mid-April. Alternate nest sites are typically present in the breeding area and most frequent clutch size is two (range of one to three eggs). Incubation spans 31 to 35 days and may be influenced by ambient temperatures. Young hatch from mid-March to mid-May and nestling

period lasts from 11 to 14 weeks; once fledged, young are dependent on adults for six to ten weeks (Montana Bald Eagle Working Group – MBEMP - 1994).

Although some nesting pairs remain in Idaho, Montana, and North Dakota year-round, the winter population is generally composed of migrants from Canada (Magaddino 1989). Winter habitat is generally associated with areas of open water where fish and waterfowl congregate (Stalmaster 1987). Perching and roosting trees are typically dominant mature conifers or cottonwoods providing a good view of the area (Magaddino 1989). Bald eagles use perches during the day while hunting, feeding, or resting; roosts are used at night or for protection during bad weather and may be occupied by one to several hundred bald eagles; roost sites, like nest sites, are used year after year (ibid).

The bald eagle is an opportunistic predator and feeds primarily on fish, but also consumes a variety of birds and mammals (both dead and alive) when fish are scarce or these other species are readily available. Fish may comprise up to 90 percent of the diet (70 percent to 90 percent) depending on geographic location, season, and relative abundance. Carp, suckers, salmon, and trout are important fish species preyed on by bald eagles. Bird prey species are more important in bald eagle diets during winter when fish are less available due to ice formation on streams, lakes, and reservoirs. Waterfowl are the most common bird species preyed on by eagles. Mammals are taken at a lesser degree than fish and birds. Mammals are taken as live prey or carrion in all seasons, but become more important during winter (USDI 1996a).

Environmental Baseline

The environmental baseline for bald eagles is described in terms of those parameters that threaten bald eagles because of human activity and development that disturbs and/or displaces bald eagles or because of vegetation management that may reduce available habitat. In addition, bald eagle nest baseline data will be determined during the annual bald eagle nest survey.

Human Activity and Development

Bald eagles are sensitive to a variety of human activities and development and may either temporarily or permanently abandon an area (Mahaffy and Frenzel 1987, Buehler et al. 1991, McGarigal et al. 1991). Disturbances at nest sites can lead to lowered productivity and site desertion (Anthony and Isaacs 1989); disturbances at foraging areas can interfere with an eagle's ability to meet its energetic demands (McGarigal et al. 1991, Stalmaster and Kaiser 1998). However, bald eagles vary in their response to various human activities. The response is often site, pair, and activity specific and is a function of type, intensity, and proximity of the disturbance (MBEMP 1994).

Vegetation Management

Bald eagles nest in a variety of habitats. They usually build nests on prominent landscapes in large trees in close proximity to aquatic foraging areas (Wright and Escano 1986, Anthony and Isaacs 1989). Timber harvest activities can modify bald eagle nesting habitat. The large, mature trees preferred by bald eagles are also preferred as timber products. Anthony and Isaacs (1989) found that bald eagles selected forest stands where logging activities were limited.

Winter roosts are often located in forest stands that have some old growth characteristics. Vegetation management may also affect winter roosts; however availability of nearby roosting sites reduces impacts (U.S. Army Corp of Engineers 1979).

Bald Eagle Nest Baseline

The baseline for each bald eagle nest will be determined through the annual bald eagle nest survey. A potential hazard rating and a potential conflict rating will be determined at that time. The hazard rating describes the condition of the nest tree while the conflict rating describes potential activities within close proximity to the nest (pages 55-56 in MBEMP 1994).

Direct and Indirect Effects Analysis

Direct and indirect effects to bald eagles are based in part on the occurrence of an activity in a nest site management zones. There are three management zones each with its own set of objectives and guidelines (*See Appendix B for definitions of management zones and MBEMP pages 22-24 for objectives and guidelines*). The objective of the management zones is to “minimize human activity near nest sites during sensitive periods of the nesting cycle to avoid disruption of normal behavior, loss of productivity or abandonment of the breeding area” (MBEMP 1994).

Activities in foraging areas outside of the management zones may also be impactful. Resident nesting bald eagles may exclude non-breeders from preferred foraging areas. Therefore, sufficient foraging areas must be available for the entire population.

The flow chart identified in Appendix B establishes the sideboards that must be met in order to arrive at a ‘not likely to adversely affect’ determination and thereby covered by the programmatic concurrence. The NLAA determination is based on the following features:

- In Management Zones I and II, human activity and disturbance is eliminated or minimized during the nesting season.
- Nesting and feeding habitat characteristics will not be altered in any management zones.
- Permanent developments will not occur in Zone I and any structures that are proposed in Zones II and III and in foraging areas will not pose any risks to bald eagles or their prey
- Other effects to foraging areas outside of the Management Zones will be minimal.

These features, as incorporated into the project types, have little to no effects on bald eagles. Project types that do not incorporate these features may lead to adverse effects to bald eagles and are not a part of this assessment.

Cumulative Effects Analysis

Implementation of the projects that meet the screening criteria for an NLAA determination should result in low to no cumulative effects to bald eagles. The recovery objectives for bald eagles should still be met although there may be impacts to individual eagles due to implementation of the projects described herein and due to impacts from non-federal lands.

Determination of Effects

Use of the screens as proposed would result in projects that may affect but are not likely to adversely affect bald eagles and would properly be included in the programmatic concurrence from the U.S. Fish and Wildlife Service.

Gray Wolves

Distribution

The gray wolf (*Canis lupus*) was once distributed throughout most of North America. Shortly after European colonization, persecution of wolves began. Gradually, wolves were extirpated from the lower 48 states except Minnesota. By 1930, wolf populations had disappeared from Idaho, North Dakota, and Montana. Reproduction did not resume in the western United States until 1986, when wolves were found denning in northwest Montana. Natural recovery continued in northwest Montana, and plans were being made to reintroduce wolves into central Idaho and Yellowstone National Park (YNP). In January 1995, 15 wolves were released into central Idaho and 14 wolves were released in YNP. In January 1996, 20 wolves were released in central Idaho and 17 wolves were released in YNP. Additional releases have not been made. Currently, there are approximately 183 wolves in about 34 packs in western Montana (Montana Fish, Wildlife, and Parks 2003).

The northern Rocky Mountain subspecies of the gray wolf was listed as endangered in 1973. Changes in taxonomy and enforcement problems led to the classification of the entire species in 1978 as endangered. In 1994, wolves east of Interstate 15 and south of the Missouri River east of Great Falls were listed as non-essential, experimental. In 2003, the wolf was reclassified as threatened except where identified as non-essential, experimental.

Life History

The gray wolf is the largest member of the dog family (Canidae). Adult males are larger than females and weigh an average of 110 pounds; females generally average 81 pounds. The pelage is long and varies in color from pure white through mottled gray and brown to coal black; it is usually a grizzled gray color. Legs are moderately long. Gray wolves generally resemble German shepherds or huskies in head and body configuration (USDI 1996b).

Wolves can live in any kind of natural habitat north of 20 degrees north latitude occupied by ungulates. Habitat includes: forests of all types, rangelands, brush land, steppes, agricultural lands, wetlands, mountain tops, deserts, tundra, and barren ground areas. This is reflected in their original circumpolar distribution. Wolves do not have any particular habitat requirement except for avoiding areas with heavy human use (USDI 1996b).

The gray wolf is territorial in most areas. Territories are defended by howling, scent-marking, and physical defense against wolf interlopers. Wolf packs occupy rather specific territories. Territories typically range from 125 km² to 550 km² (Mech 1970, Peterson 1977, Ream et al. 1991) with an average territory size of 222 km² in northwestern Montana as documented during 1999 (USDI et al. 2000). The number of individuals in a pack and the availability of prey determine territory size; packs dependent on migratory prey tend to have the largest territories

(USDI et al 2001). Daily pack movements vary and distances traveled are greater in winter than in summer. Lone wolves cover larger areas than packs and their use areas may overlap two or three pack territories (Mech 1973, Fritts and Mech 1981).

Wolves tend to be most active in the early or late evening and travel within their territories at night. Patterns of activity are influenced by weather and season of year. While wolves are generally not considered migratory, they may wander great distances daily, within their home range, predominantly influenced by searching for prey. When reproduction increases population numbers within an area, young adult wolves may disperse to new areas. Wolves may establish “runways” by following the same routes within territories. Vegetative cover affects wolf survival by providing shelter for prey species such as deer and elk; in general, healthy wolves need little cover (Mech 1970 and 1974).

Wolf dens are used for bearing and protecting pups, and are often abandoned when pups reach two months old. The same den may be used year after year, or different dens may be selected. Pups are sometimes moved from one den to another. Dens may be holes dug in the ground, rock caves and crevices, old beaver lodges, and hollow logs or other ground debris. Den sites are typically located near water, dug in sandy and well-drained soils, and located in a variety of landforms (Young 1944, Mech 1970, Fritts 1982).

One estrous cycle per year is most common for wolves and occurs from January in low latitudes to April in high latitudes. In the northern Rockies, the breeding season peaks mid to late February (Boyd et al. 1993). The gestation period lasts 63 days (nine weeks), with an average of six pups (one to eleven pups) born blind and helpless. In northwestern Montana, maximum litter size averaged 5.3 from the early 1980s until the mid 1990s. Pups stay in the den until a few weeks old, begin to eat solid food at three weeks, and meet the rest of the pack in one month. Once pups leave the den, the entire pack looks after them. During spring and summer, a reproductive pack’s movements are centered round den and rendezvous sites. Rendezvous sites are important rearing areas for pups, once they have left the den site. By late summer, pups are mature enough to travel and pack movements increase (Young 1944, Mech 1970, Fritts 1982).

Wolves prey primarily on large wild mammals, such as deer, elk, moose, caribou, bison, bighorn sheep, etc (Kunkel et al. 1999, Smith et al. 2000, Montana Department Fish, Wildlife, and Parks 2003). However, wolves are opportunistic feeders eating a wide variety of food including cattle, sheep, horses, dogs, birds, small mammals, fish, plants, and fruits. Prey items often depend on availability and ease of capture (Kunkel et al. 1999). Wolves are also successful scavengers. Wolves hunt as individuals and in packs (Young 1944, Mech 1970, Fritts 1982).

Environmental Baseline

The environmental baseline for gray wolves is described in terms of those parameters that threaten wolves through human contact and conflict (i.e. livestock/grazing concerns), through activities that compromise denning or rendezvous sites, or through activities that affect prey base.

Human Contact/Conflict

Wolves initially experienced population declines due mainly to conflicts with humans. This included human settlement, direct conflict with livestock, a lack of understanding of wolf

ecology and habits, and the subsequent eradication programs (USDI 1987). Today human conflict still exists most notably over livestock depredations and the associated economic losses. During 1999-2001, an average of 15 head of cattle and 27 sheep per year were confirmed as wolf kills (Montana Department Fish, Wildlife, and Parks 2003). Currently, when a wolf attacks legally present livestock and further losses are likely, the wolf (or wolves) are either relocated or killed.

Denning and Rendezvous Sites

Wolves may use den sites from year to year and certain areas may contain several den sites that are used in different years by wolves (USDI 1987). Wolf packs appear sensitive to human disturbance near den sites and may abandon the site (Ballard et al. 1987). Subsequently, most den sites are located away from trails and backcountry campsites.

Rendezvous sites refer to specific resting and gathering areas used by wolves during the summer and early fall. Several rendezvous sites are used with the first one generally located between 1 – 6 miles from the natal den. Rendezvous sites are used by a pack until the pups are mature enough to travel with the adults, generally early autumn. Wolves appear to be most sensitive to human disturbance at the first rendezvous site and become less sensitive at later sites (USDI 1987). However, wolf response to human disturbance is due to a variety of factors including specific setting, individuality of wolves, and whether the population is exploited or protected (Mech et al. 1998, Thiel et al. 1998).

Prey Base

Wolves primarily prey on ungulates (USDI 1987). During May and June, wolves selectively prey upon newborn and young bison, moose, elk, and deer in calving/fawning areas. During the summer and fall, ungulates constitute the highest percentage of biomass; in winter wolves prey almost exclusively on deer, elk, and moose. Because they are an important prey item, factors (e.g. habitat and access management, winter range productivity) that affect ungulate distribution and abundance also affect wolves.

Direct and Indirect Effects Analysis

Direct and indirect effects on wolves are primarily focused on those activities that increase the likelihood of human/wolf contact and potential conflict. Disturbance at den and rendezvous sites may displace wolves and lead to abandonment of sites; livestock depredations can lead to removal or death. Other direct and indirect effects occur when activities such as access or vegetation management affect ungulate abundance and distribution.

The flow chart identified in Appendix C establishes the sideboards that must be met in order to arrive at a 'not likely to adversely affect' determination and thereby covered by the programmatic concurrence. The NLAA determination is based on the following features:

- Den and rendezvous sites will be protected from disturbance as outlined in the Wolf Recovery Plan
- Prey base will be maintained or enhanced
- Mortality risks to wolves are minimal

- Livestock grazing is maintained at existing levels (or reduced with no control actions on wolves) or the livestock class is reduced to a less vulnerable species

These features, as incorporated into the project types, have little to no effects on wolves. Project types that do not incorporate these features may lead to adverse effects to wolves and are not a part of this assessment.

Cumulative Effects Analysis

Implementation of the projects that meet the screening criteria for an NLAA determination described in the biological assessment should result in low to no cumulative effects to wolves. The recovery objectives for wolves should still be met although there may be impacts to individual wolves due to implementation of the projects described herein and due to impacts from non-federal lands.

Determination of Effects

Use of the screens as proposed would result in projects that may affect but are not likely to adversely affect gray wolves and would properly be included in the programmatic concurrence from the U.S. Fish and Wildlife Service.

Lynx

Distribution

Lynx (*Lynx canadensis*) currently are found throughout Alaska and Canada (except arctic islands) south through the Rocky Mountains, northern Great Lakes region, and northern New England. Lynx historically occurred in 16 states represented by five ecologically distinct regions: Cascade Range (Washington, Oregon), northern Rocky Mountains (northeastern Washington, northeastern Oregon, Idaho, Montana, western Wyoming, northern Utah), southern Rocky Mountains (southeastern Wyoming, Colorado), northern Great Lakes (Minnesota, Wisconsin, Michigan), and northern New England (Maine, New Hampshire, Vermont, New York, Pennsylvania, Massachusetts).

Resident populations currently exist only in Maine, Montana, Washington, and possibly Minnesota. They are considered extant but no longer sustaining self-support populations in Wisconsin, Michigan, Oregon, Idaho, Wyoming, Utah, and Colorado; they may be extirpated from New Hampshire, Vermont, New York, Pennsylvania, and Massachusetts (Ruediger, et al. 2000).

The lynx was listed as threatened in 2000.

Life History

Canada lynx are medium-sized cats generally 30-35 inches long and weighing 18-23 pounds. They have large feet adapted to walking on snow, long legs, tufts on ears, and black-tipped tails (Ruediger, et al. 2000).

Snowshoe hares are the primary prey of lynx, comprising 35-97% of the diet. Other prey species include red squirrel, grouse, flying squirrel, and ground squirrels, among others.

During the cycle when hares become scarce, the proportion and importance of other prey species, especially red squirrel, increases in the diet. However, Koehler (1990) suggested that a diet of red squirrels alone might not be adequate to ensure lynx reproduction and survival of kittens. Most research has focused on the winter diet, and diets in the summer are poorly understood throughout the range. Indications are that the summer diet may include a greater diversity of prey species.

There has been little research on lynx diet specific to the southern portion of its range except in Washington (Koehler et al. 1979, Koehler 1990). Southern populations of lynx may prey on a wider diversity of species than northern populations because of lower average hare densities and differences in small mammal communities. In areas characterized by patchy distribution of lynx habitat, lynx may prey opportunistically on other species that occur in adjacent habitats, potentially including white-tailed jackrabbit, black-tailed jackrabbit, sage grouse, and Columbian sharp-tailed grouse (Lewis and Wenger 1998).

Lynx occur in mesic coniferous forests that have cold, snowy winters and provide a prey base of snowshoe hare (McKelvey et al. 2000, Ruggiero et al. 2000). In North America, the distribution of lynx is nearly coincident with that of snowshoe hares. Lynx are uncommon or absent from the wet coastal forests of Canada and Alaska.

Both snow conditions and vegetation type are important factors to consider in defining lynx habitat. Across the northern boreal forests of Canada, snow depths are relatively uniform and only moderately deep (total annual snowfall of 39-50 inches) (Kelsall et al. 1977). Snow conditions are very cold and dry. In contrast, in the southern portion of the range of the lynx, snow depths generally increase, with deepest snows in the mountains of southern Colorado. Snow in southern lynx habitats may be subjected to more freezing and thawing than in the taiga (Buskirk et al. 2000), although this varies depending on elevation, aspect, and local weather conditions. Crusting or compaction of snow may reduce the competitive advantage that lynx have in soft snow, with their long legs and low foot loadings.

Most lynx occurrences in the western United States were associated with Rocky Mountain Conifer Forest and most were within the 4920-6560 foot elevation zone. There is a gradient in the elevational distribution of lynx habitat from the northern to the southern Rocky Mountains, with lynx habitat occurring at 8000-11500 feet in the southern Rockies. Primary vegetation that contributes to lynx habitat is lodgepole pine, subalpine fir, and Engelmann spruce (Aubry et al. 2000). In extreme northern Idaho, northeastern Washington, and northwestern Montana, cedar-hemlock habitat types may also be considered primary vegetation. In central Idaho, Douglas-fir on moist sites at higher elevations may also be considered primary vegetation. Secondary vegetation that, when interspersed within subalpine forests, may also contribute to lynx habitat, include cool, moist Douglas-fir, grand fir, western larch, and aspen forests. Dry forest types (e.g. ponderosa pine, climax lodgepole pine) do not provide lynx habitat.

Environmental Baseline

The environmental baseline for lynx is described in terms of those parameters that threaten lynx through vegetation management and alteration that may reduce available denning and foraging habitat or through human activities that may either directly or indirectly displace lynx.

Direct and Indirect Effects Analysis

Vegetation Alteration

Forest management practices can influence habitats for lynx and their prey either by removing denning habitat or decreasing available prey habitat (Ruediger et al. 2000). Lynx natal dens generally occur in areas with large quantities of coarse woody debris in either mature or regenerating stands. The primary prey, snowshoe hare, reach high densities in young, dense, coniferous forests or mature forests with dense understories. Another important prey item, the red squirrel, is abundant in mature cone-bearing forests.

Regeneration timber harvest may temporarily eliminate snowshoe hare forage and cover, as well as reduce red squirrel habitat and denning habitat through the removal of large trees and down logs. Intermediate harvest treatments may also temporarily reduce snowshoe hare and red squirrel habitat depending on the degree of stem removal. Because stem density and snowshoe hare density are correlated (Mowat et al. 2000), precommercial thinning reduces available snowshoe hare habitat. Extensive salvage logging could result in decreased denning habitat.

Fire management also plays a critical role in the availability of lynx habitat. Fire suppression over the past 60 years has altered vegetation mosaics and may have reduced snowshoe hare habitat. Impacts of fire suppression are greatest in areas of low to mid intensity fire regimes (Quigley et al. 1996). Post-harvest burns that reduce woody debris may decrease habitat for snowshoe hare and other small mammals as well as reducing denning habitat.

Livestock grazing potentially alters lynx habitat by reducing forage available to snowshoe hares through alteration of the structure and/or composition of native vegetation. Grazing throughout the Rocky Mountains has contributed to the decline of aspen, which as a well-developed young stand provides quality habitat for snowshoe hares and other lynx prey items (Ruediger et al. 2000). Grazing has also degraded high elevation willow communities, another component of snowshoe hare habitat.

The spread of non-native, invasive species also has the potential to alter lynx habitat although effects to lynx have not been documented (Ruediger et al. 2000).

Vegetation management can be beneficial to lynx and their prey. Timber management used as a disturbance process with or in place of fire can create snowshoe hare habitat. Management prescriptions that retain and recruit coarse woody debris can enhance denning habitat. Other habitat management that promotes high densities of conifers, hardwoods, and shrubs will enhance prey habitat.

Human Activity and Development

Generally, lynx are described as being tolerant of humans (Mowat et al. 2000). However, several human activities and developments have the potential to displace lynx or reduce habitat effectiveness. To date, however, little data exist to conclusively determine the effects of human activities on lynx.

Winter recreation use that results in snow compaction may result in increased access by competitors into lynx habitat (Buskirk et al. 2000). Recreational activities adjacent to a den site may cause abandonment of that site and possibly affect kitten survival. Overall, recreational activities may exert direct and indirect effects on lynx and their habitat. Lynx may be able to adapt to regular, concentrated recreational use as long as critical habitat needs are met. Interconnected habitat relatively free of human intervention should minimize effects of human development and disturbance on lynx and their habitat.

Non-winter use of roads and trails may reduce lynx habitat effectiveness although little information exists on potential effects (Ruediger et al. 2000). Conversely, lynx may use less-traveled roadbeds for travel and foraging if roadside vegetation provides snowshoe hare habitat. No data exist that identify the need for management of road densities in lynx habitat at this time. However, direct mortality associated with highways could be detrimental to lynx in the lower 48 states.

Other human activities that may affect lynx include incidental trapping or shooting and activities that impede lynx movement (e.g. reservoir development, utility corridors) (Ruediger et al. 2000).

Cumulative Effects Analysis

Implementation of the projects that meet the screening criteria for a 'not likely to adversely affect' determination should result in low to no cumulative effects to lynx. The conservation objectives for lynx as identified in the Lynx Conservation Assessment and Strategy should still be met although there may be impacts to individual lynx due to implementation of the projects described herein and due to impacts from non-federal lands.

Determination of Effects

Use of the screens as proposed would result in projects that may affect but are not likely to adversely affect lynx and would properly be included in the programmatic concurrence from the U.S. Fish and Wildlife Service.

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APPENDIX A
GRIZZLY BEAR PROJECT SCREENING ELEMENTS
AND DETERMINATIONS

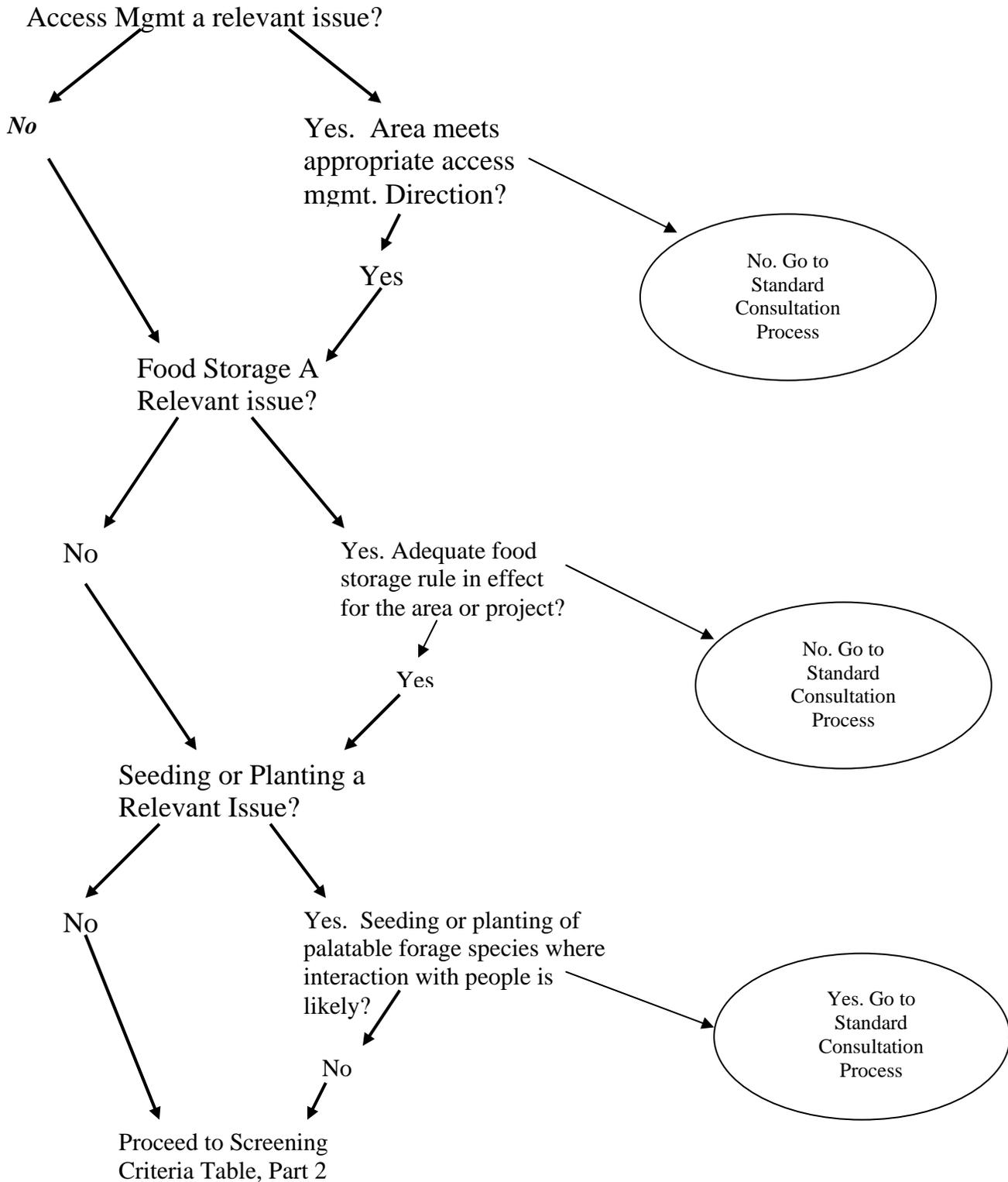
Three considerations are prerequisite to more detailed consideration of other project information and are considered in screening process Part 1. (1) The area must be in compliance with the appropriate access management direction. (2) Human foods, livestock feed, garbage, and other attractants must be managed by the application of an adequate² “food storage rule” similar to the NCDE or Yellowstone food storage orders. If no specific rule exists for the area, use of either the Yellowstone or NCDE order will be considered adequate. (3) Projects that involve seeding or planting of grasses, forbs, or shrubs, must do so in a manner that will tend not to attract bears into areas where increased mortality risk or interaction between bears and people is likely.

After access management, food/attractant storage, and seeding/planting of grasses, forbs, or shrubs has been considered in Part 1, only then can other project details be considered; and is included in the Screening Criteria Table, Part 2. Table 2 represents as comprehensive an activity list as possible. There may be activities that are not included in this Table; for those activities not included and for which there is an effect, follow standard consultation procedures. Also, the Not Likely to Adversely Affect (NLAA) determinations reflect a conservative determination. There may be activities listed as NLAA in Table 2 that upon site specific analyses warrant a No Effect determination.

Note, the scope of this programmatic biological assessment applies to areas where grizzly bears are expected to occur – i.e. not just within Recovery Zone boundaries.

²Food shall be attended or stored in a bear resistant manner. For examples of applicable methods of bear resistant storage and definitions for ‘attended’ review the NCDE or Yellowstone food storage orders.

GRIZZLY BEAR SCREENING PROCESS PART 1



Part 2: The following Screening Criteria Table displays forest activities and criteria, that when met, will allow the project to meet “screening elements”. If the project does not meet the identified criteria, the project should proceed through the established consultation process³.

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
1	Timber harvest	Harvest, skidding, and/or hauling of timber products	NA	NA	Potential LAA, go to Standard Consultation process
2	Mechanical	Off road heavy equip operation, such as site prep, fuel piling, log yarding, etc	NA	NA	Potential LAA, go to Standard Consultation process
		Helicopter use for monitoring, prescribed fire ignition, wildlife relocations, etc	Use includes few trips and ≤2 activities/year and ≤2 days/activity/analysis area	NA	NLAA
3	Roads and Road Maintenance	Opening closed road			Potential LAA, go to Standard Consultation process
		Reclaiming road outside of riparian/spring habitat		Meets administrative use levels	NLAA
		Reclaiming road in riparian/spring hab		Project occurs between July 1 through March 31 or completed in ≤1 day, and meets administrative use levels	NLAA
		Reclaiming road		Does not meet administrative use levels, or occurs in riparian/spring habitat and active during 4/1-6/30	Potential LAA, go to Standard Consultation process

³ References for crew levels and duration of use as well as time frames identified under Screening Criteria include: CEM – A model for assessing effects on grizzly bears, 1990; Response to peer review of the A19 and proposed approach to managing access in grizzly bear habitat, NCDE Technical Group 1/24/01; and Draft, Rationale and choices made in the review and development of an access direction proposal for the NCDE grizzly bear ecosystem, 11/24/98.

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
		Road Maint: blading, culvert cleaning, brushing, etc		Road is open, or use meets administrative use criteria	NLAA
		New road construction			Potential LAA, go to Standard Consultation process
		Bridge or stream culvert replacement		Project occurs between July 1 through March 31 or completed in ≤1 day	NLAA
4	Silviculture Activities	Reforestation hand planting	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Does not include snow plowing for access	NLAA
		Reforestation mechanical treatments	NA	NA	Potential LAA, go to Standard Consultation process
		Insect suppression Aerial chemical application	NA	Chemicals do not effect cutworm moth or habitat	NLAA
		Insect suppression Aerial chemical application	NA	Chemicals affect cutworm moth or habitat, and in moth habitat	Potential LAA, go to Standard Consultation process
		Insect suppression ground chemical application	NA	NA	NLAA
		Insect suppression survey, fertilization, manual treatment, individual tree fire treatment, or pheromone treatment	NA	NA	NLAA
		Precommercial thinning and long term (>1 year) commercial Christmas tree harvest			Potential LAA, go to Standard Consultation process
5	Range	Infrastructure development	NA	NA	NLAA
		Grazing		Maintains or reduces existing livestock grazing or changes livestock class to a less vulnerable spp, and no history of depredation	NLAA

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
				or control actions	
		Grazing		Increases livestock grazing, introduces new grazing into areas where depredation more likely, or history of livestock depredation	Potential LAA, go to Standard Consultation process
6	Recreation	Trail maintenance or reconstruction	NA	Results in increased use or change of user type	Potential LAA, go to Standard Consultation process
		Trail maintenance or reconstruction		Does not result in increase in use or change in user type	NLAA
		New Trail construction			Potential LAA, go to Standard Consultation process
		Facility operations, including developed and dispersed camping		Educate public campers and enforce sanitation standards. Does not increase use or change user type.	NLAA
		Facility operations, including developed and dispersed camping		Sanitation standards are not enforced or use is increased or user type is changed.	Potential LAA, go to Standard Consultation process
7	Forest Products	Personal use firewood collection, annual Christmas tree cutting, berry picking, low/incidental mushroom picking, and collection of “other forest products” (such as bear grass greens, medicinal herbs, pachistima, etc)		Does not include off road mechanical skidding or hauling. Include “bear aware” education message	NLAA
		Commercial firewood collection, berry picking, and “other forest products” (such as bear grass greens, medicinal herbs, pachistima, etc), but does not include mushrooms.	Day use only or camping of ≤20 individuals and ≤5 days total/analysis area	Does not include off road mechanical skidding or hauling. Enforce sanitation standards, and Include “bear aware” education message.	NLAA
8	Habitat Restoration	See timber harvest, mechanical treatments, roads, weed control, and prescribed fire. Also includes	Day use only or camping	Project occurs between July 1 through March 31 or completed in	NLAA

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
		monitoring, exclosure development, fish barrier development, fish spp removal/trapping, rotenone treatment, interperatation/Con Ed, meadow restoration, riparian planting and restoration, snag creation, and water source development.	of ≤20 individuals and ≤5 days/analysis area	≤1 day in riparian areas. Project does not result in an increase in public use or user type.	
9	Prescribed Fire	General support, ignition, mop-up	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Does not include riparian areas	NLAA
		Fire line construction	Same as support	Fire line does not/will not function as a road or trail and will be reclaimed after the fire.	NLAA
		Defensible space treatments (within 100m of structure) (Cohen 2000)	Same as support	Planting and/or seeding does not include palatable forage spp.	NLAA
10	Watershed restoration	Includes erosion control structures, sediment control, monitoring. Also, see reforestation, timber harvest, mechanical treatments, etc.	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Project occurs between July 1 through March 31 or completed in ≤1 day	NLAA
11	Weed management	Chemical, aerial or ground application	NA	NA	NLAA
		Sheep or goat grazing	NA	NA	Potential LAA, go to Standard Consultation process

APPENDIX B
BALD EAGLE PROJECT SCREENING ELEMENTS
AND DETERMINATIONS

All attempts were made to adhere to and be compatible with the guidance found in the Montana Bald Eagle Management Plan (July 1994). Please refer to the Montana Bald Eagle Management Plan for further, more detailed, information. For a proposed activity in or near bald eagle breeding habitat, take it through each of the screens that refer to the location in which the project will occur (e.g. Zone I, etc.). Read each separate section if it is within the area of zone affected. Note, the Not Likely to Adversely Affect (NLAA) determinations reflect a conservative determination. There may be activities listed as NLAA that upon site specific analyses warrant a No Effect determination.

Definitions:

Zone I-Nest Site Area, ¼ mi (400 m) radius of all nest sites in the breeding area that have been active within 5 years or until an active nest is located. When an active nest is located, Zone I applies only to the active nest (MBEMP p.23). Zone maps may be modified if sufficient information on the bald eagles using them exists.

Zone II-Primary Use Area, includes the area ¼ mi (400 m) to ½ mi (800 m) from all nest sites in the breeding area that have been active within 5 years or until an activities nest is located. When an active nest is located, Zone II applies only to the active nest (*Id.*p.23).

Zone III-Home Range, represents most of a home range used by eagles during the nesting season. It usually includes all suitable foraging habitat within 2.5 mi (4 km) of all nest sites in the breeding area that have been active within 5 years (*Id.* p.24).

Foraging Habitat-includes foraging habitat outside of Zones I, II and III where resident breeding birds may forage. This is essential for the entire population, not just resident breeding eagles. This includes lakes, rivers, wetlands and meadows (*Id.* p.24).

Human Activity-examples of low intensity such as dispersed recreation; high intensity is heavy equipment use, blasting, logging, or concentrated recreation (*Id.* p.24).

Development-development that may increase human activity levels or negatively impact bald eagle habitat (*Id.* p. 24 refers to permanent development)

Nesting Season (dates)-as early as Feb. 1 and as late as Aug. 15 in MT (*Id.* p.22); nest specific information will firm up the dates for that nest/pair

Postfledging-birds leave the nest area, generally in Aug. in MT

Habitat alteration-that which may negatively affect bald eagles include, but are not limited to, timber harvest, prescribed fire, power line construction, pesticide use, land clearing, stream channeling, levee or dam construction or wetland drainage (*Id.*p.23)..

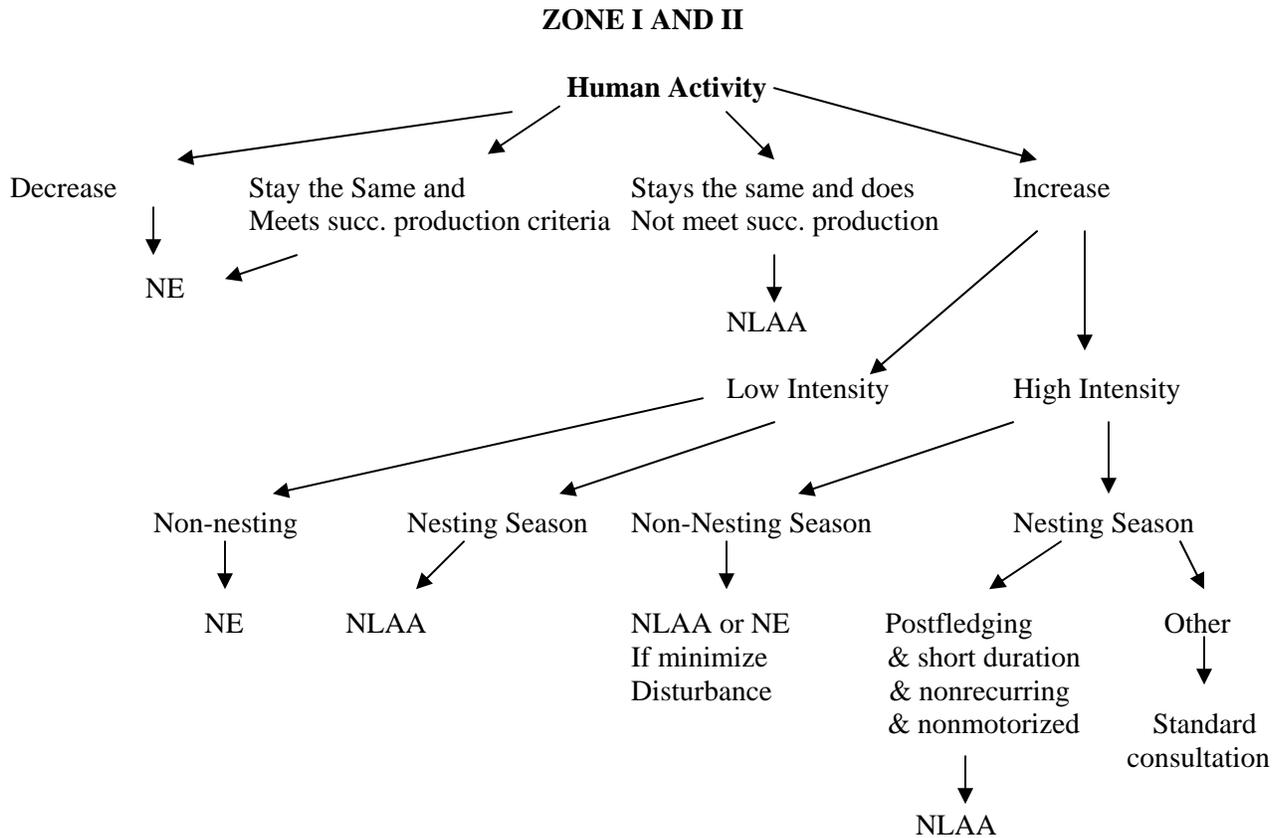
Nesting and feeding habitat characteristics-see MBEMP p. 27-28

Structures-example of a structure hazardous to bald eagles is overhead utility lines (*Id.* p.24)

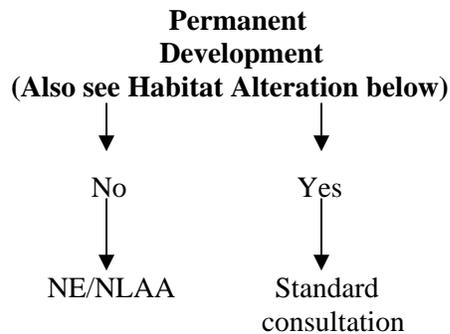
Disturbance-any human elicited response that induces a behavioral or physiological change in a bald eagle contradictory to those that facilitate survival and reproduction. Disturbance may include elevated heart or respiratory rate, flushing from a perch or events that cause a bald eagle to avoid an area or nest site (*Id.* p. 48).

Key use areas-Parts of Zone III most used by bald eagles

Successful Production Criteria-60% nest success and has fledged 3 or more young during the preceding 5 years (*Id.* p. 23)



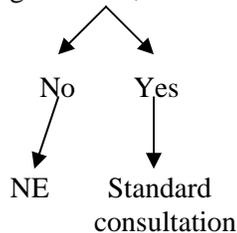
ZONE I AND II



ZONE I AND II*

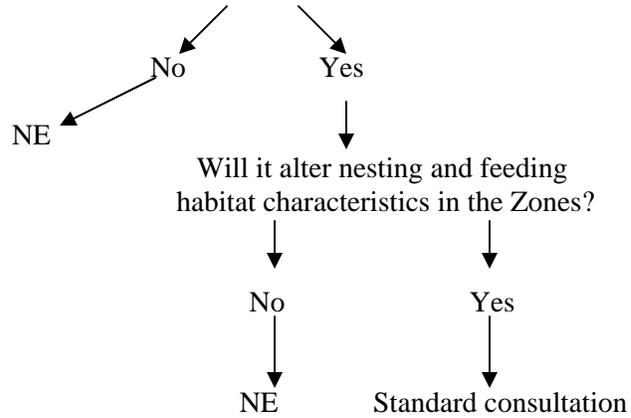
Repeated flights by helicopter, light plane, hang glider, paraglider, parachute or hot air balloon under the control of an agency (permitted, etc.)

↓
During nesting season, less than ½ mi above nest,*
in Zone I or II within line of sight of nest, and Zone I outside of line of sight of nest



ZONE I, II AND III

Habitat Alteration



ZONE II AND III AND FORAGING AREAS

Structures proposed that pose no risk to bald eagles or their prey



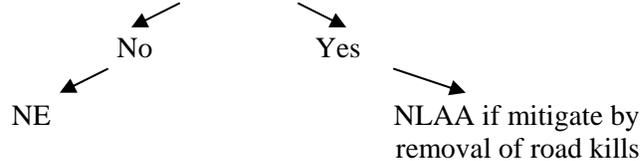
ZONE III

Disturbance proposed in key use areas



FORAGING HABITAT

Will the project increase road kills?



*Not from MT BEMP, from Pacific Bald Eagle Recovery Plan, p. 53 (pers. comm. Eric Greenquist to Carole Jorgensen)

APPENDIX C
WOLF PROJECT SCREENING ELEMENTS
AND DETERMINATIONS

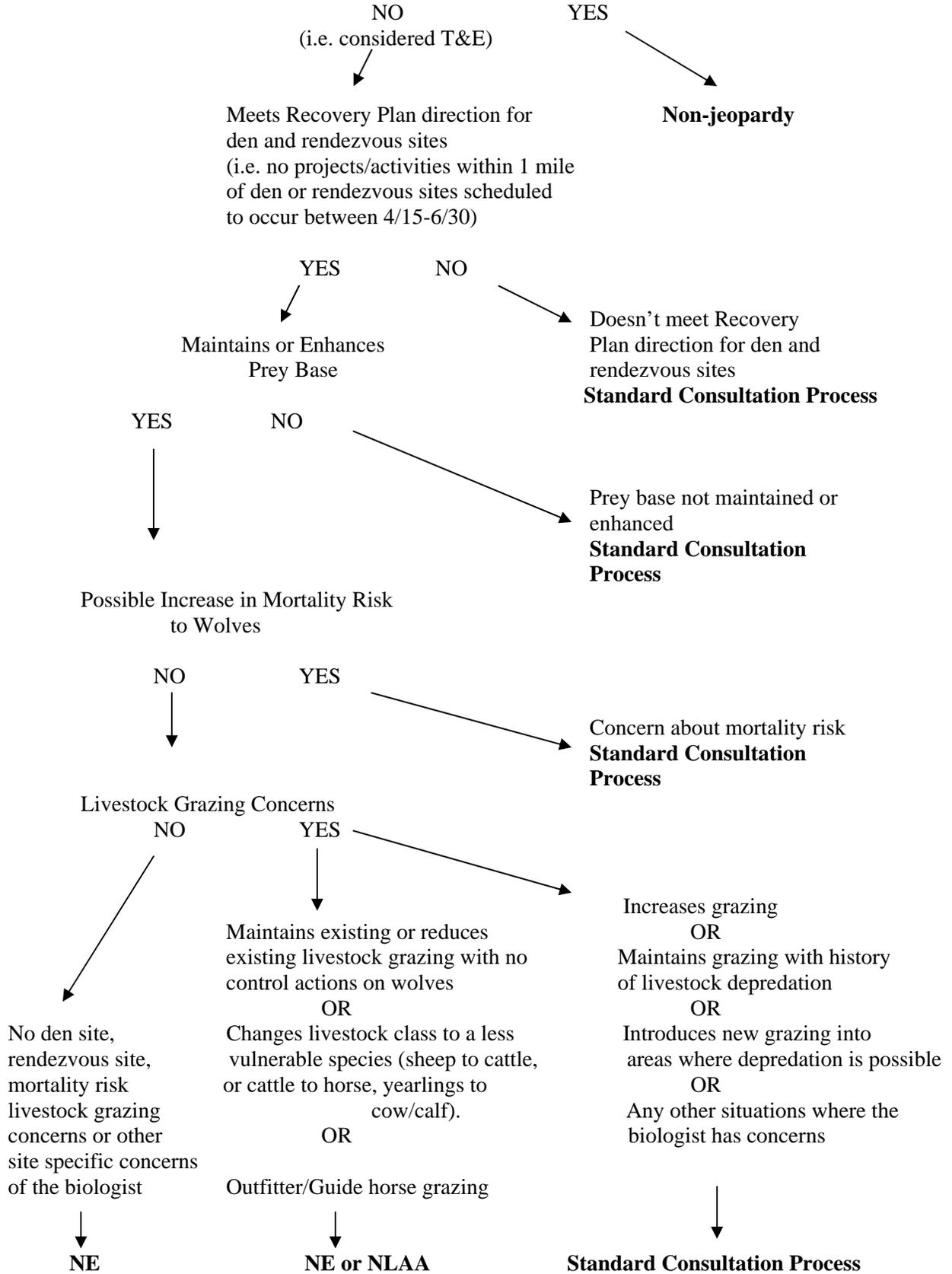
The following screening process is intended to facilitate ESA processing of project consultation requirements. The wolf screen should be used to assist you in identifying projects that have “no effect” (NE) or “not likely to adversely affect” (NLAA) determination calls for the wolf. All projects that do not fall into the NE or NLAA must consider the wolf by using the standard consultation process for evaluating impacts of proposed projects on threatened and endangered species [i.e. project analysis (including cumulative effects) Biological Assessment, and consultation with USFWS]. Also, the Not Likely to Adversely Affect (NLAA) determinations reflect a conservative determination. There may be activities listed as NLAA that upon site specific analyses warrant a No Effect determination.

The major components of the wolf screen are population designation (wild or experimental) and whether the proposed project has any relationship to den or rendezvous sites during spring/summer, the prey base and/or livestock grazing. The original draft of the wolf screen was based on the following references and personal communications and has been modified through review by the Montana Level I Team:

- USDI. 1987. Wolf Recovery Plan.
- Fontaine, Joe. Personal communication (with Mike Hillis)
- USDA and USDI. 2000. Interior Columbia Basin Ecosystem Management Project, Final Environmental Impact Statement.
- USDA and USDI. Biological Assessment. Interior Columbia Basin Ecosystem Management Project. In preparation.

EXPERIMENTAL POPULATION

[(10j)]



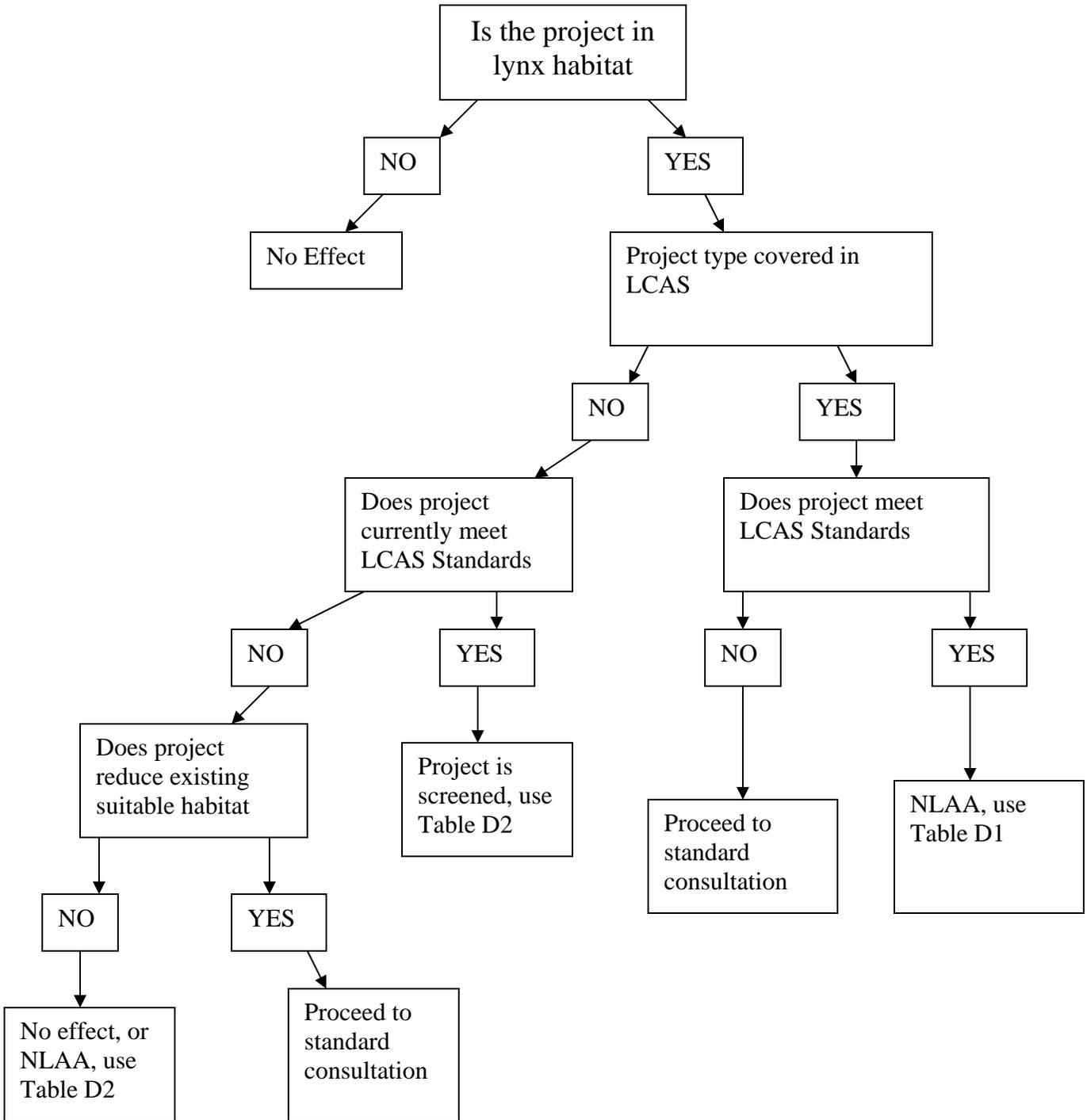
**APPENDIX D
LYNX PROJECT SCREENING ELEMENTS
AND DETERMINATIONS⁴**

The lynx screen is a 2-part process. Projects are initially screened through the Part 1 Flow Chart to determine whether they are carried forward into Part 2 or if standard consultation procedures need to be followed. Part 2 consists of two different tables; D1 and D2. Table D1 is composed of those activities described in the LCAS. Table D2 consists of projects that are not identified in the LCAS but that are implemented as part of program of work and as such need to be analyzed for effects to listed species. Table D2 is based on the consultation that was completed when lynx were listed in 2000 and ongoing projects needed analysis. As such, we retained the 'No Effect' determination in these screens as a general guideline for use by project biologists.

Applicable to both Tables, the Not Likely to Adversely Affect (NLAA) determinations reflect a conservative determination. There may be activities listed as NLAA that upon site specific analyses warrant a No Effect determination.

⁴ Screening elements apply to projects that are in lynx habitat that are within a lynx analysis unit. Refer to the Lynx Conservation Assessment and Strategy for a definition of lynx habitat

LYNX SCREENS
PART 1



LYNX SCREENS, PART 2 (Tables D1 and D2)

Table D1. Screening criteria for projects included in the Lynx Conservation and Assessment Strategy

#	Activity Type	Activity Component	Screening Criteria	Determination
1	Timber Harvest	Felling, skidding, and/or hauling of timber products (not including salvage harvest). Includes post sale prescribed fire (slash, broadcast burning, etc.)	Management actions shall not change more than 15% of lynx habitat within a LAU to an unsuitable condition within a 10-year period; no more than 30% of lynx habitat within an LAU will be in unsuitable condition; greater than 10% denning habitat remains after the project; habitat connectivity is maintained	Proceed to standard consultation
		Salvage harvest	Affected area is greater than or equal to 5 acres OR denning habitat has been field verified and comprises more than 10% of lynx habitat within an LAU and will be well-distributed after salvage harvest	Proceed to standard consultation
2	Roads and Road Maintenance	Highways	Highway crossings are identified that reduce highway impacts on lynx. This screening element refers to actual projects that involve the creation of highway crossings to facilitate lynx movement.	Proceed to standard consultation
		Non-recreation motorized winter access	Over-snow access is restricted to designated routes	NLAA
3	Silviculture Activities	Precommercial thinning	Precommercial thinning occurs in stands that no longer provide snowshoe hare habitat	NLAA
4	Range	Livestock grazing in post-fire and post-harvest areas	Livestock use is delayed in these created openings until successful regeneration of the shrub and tree component occurs	NLAA
		Livestock grazing in aspen stands	Aspen stands are managed to ensure sprouting and survival sufficient to perpetuate long-term viability of the clones	NLAA
		Livestock grazing in shrub-steppe habitats	Shrub-steppe habitats are managed to maintain or achieve mid-seral or higher condition to provide lynx habitat matrix	NLAA
		Livestock grazing in riparian areas or willow carrs	Livestock grazing is managed to maintain or achieve mid-seral or higher condition to provide cover and forage for prey species	NLAA

#	Activity Type	Activity Component	Screening Criteria	Determination
5	Recreation	Snowmobling	No net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU	NLAA
		Developed Recreation including planning and operating new or expanded recreation developments	Landscape connectivity is not compromised; trails, roads, and lift termini are designed to direct winter use away from diurnal security areas; key linkage areas are provided for landscape connectivity	NLAA
6	Prescribed Fire	All activity components	Burn prescriptions are designed to regenerate or create snowshoe hare habitat	NLAA

Table D2. Screening criteria for projects not included in the Lynx Conservation and Assessment Strategy

#	Activity Type	Activity Component	Screening Criteria	Determination	
1	Roads and Road Maintenance	Road Maintenance - This includes general road maintenance that may involve the brushing of vegetation on the road or along roadsides. Road maintenance may include but is not limited to roadbed blading, brushing, cleaning ditches, replacing or cleaning culverts, cleaning dips, or spot graveling .	Brushing included	NLAA	
			No brushing associated with activity	NE	
		Road Decommissioning - This involves the use of heavy equipment and includes obliteration and other methods to hydrologically neutralize the road.		NLAA	
		General Road Use - This includes hauling timber, removing mining waste and materials, and moving livestock over federal roads for which permits are required. It also includes routine road use by administrative units to carry out work associated with recreation, range, timber and minerals management, fire prevention and suppression, inventories, surveys, and other monitoring activities. This includes use of roads consistent with existing travel plans.	Activity includes right-of-ways, multiple dwelling construction, or development of large corporate lands	Proceed to Standard Consultation	
			Activity occurs in winter and does NOT include right-of-ways, multiple dwelling construction, or development of large corporate lands	NLAA	
			Activity occurs in spring, summer, or fall and does NOT include right-of-ways, multiple dwelling construction, or development of large corporate lands	NE	
2	Silviculture Activities	Tree Planting	Tree planting does not result in stand type conversion. Activity does not involve snowplowing	NE	
3	Recreation	Recreation Special Uses - This includes activities for which permits are issued and includes outfitting and permits issued to a variety of organizations that engage in activities such as mountaineering, rock climbing, outward bound, ski races, concerts, “Poker Runs”, “Fun Runs”,	Activity is consistent with existing access management from Forest and Travel Plans and is consistent with the LCAS	Activity occurs in Spring, Summer, Fall	
				Activity involves hunting mountain lions with dogs	NLAA
				Activity occurs in winter	NLAA

#	Activity Type	Activity Component	Screening Criteria	Determination
		driving tours, nature watch hikes, hunting, fishing, and a wide variety of other events.		
		Trail Use consistent with existing travel management	Activity occurs in winter, meets LCAS	NLAA
			Activity occurs in spring, summer, or fall	NE
		Maintenance and/or Minor Trail Re-routes - This consists of maintenance of trails and minor trail re-routes and may require use of heavy equipment.	Activity does not involve blasting	NE
		New Trail Construction and/or Major Trail Re-routes and Maintenance - This includes the development of new trails used for foot, stock, or motorcycles and may require the use of heavy equipment or hand tools and may create a clearing width up to 10 feet wide (FSH 2309.18). This also includes major re-routing and may require use of heavy equipment and/or blasting.		NLAA
		Camping – Includes dispersed and developed campgrounds	Consistent with existing travel plans and LCAS and occurs during spring, summer, or fall	NE
		Dispersed off-road activities	Consistent with existing travel plans and LCAS	NLAA
		Permitted and Non-permitted use of Developed Sites, Facilities, and Their Maintenance - This includes special use permits issued for facilities, residences, and other structures. Permits are also issued for organizational camps such as the Boy Scouts and church groups at developed campgrounds. Other facilities include but are not limited to campgrounds, rental cabins, watchable wildlife sites, picnic areas, warming huts, and communication sites. Also includes Forest Service administrative sites and their maintenance (e.g. campgrounds, trailheads, ranger stations, etc.)	Activity occurs or is associated with ski areas	Proceed to Standard Consultation
			Activity occurs during the winter	NLAA
			Activity occurs during spring, summer, or fall	NE

#	Activity Type	Activity Component	Screening Criteria	Determination
4	Forest Products	Post and Pole Sales – This includes both commercial and non-commercial post and pole sales. This typically occurs in forested stands consisting of trees 5-9” diameter at breast height (dbh).	LCAS habitat criteria are met within the respective LAU (i.e. activity occurs in dense stands where low live limbs are generally out of reach for snowshoe hare).	NLAA
		Firewood Collection - This includes both commercial and non-commercial collection and involves the collection of standing dead or down wood.	LCAS habitat criteria are met within the respective LAU	NLAA
		Other Forest Products – This includes but is not limited to berry, mushroom, and bear grass collection and includes both commercial and non-commercial activities. Collection of tree products is not included.	LCAS habitat criteria are met within the respective LAU	NE
		Christmas Tree/Bough Cutting - This includes both commercial and non-commercial cutting. The trees cut range from 3” to 5” dbh and are less than 25’ tall.	LCAS habitat criteria are met within the respective LAU. Stand must not be converted to unsuitable snowshoe hare habitat. See Lynx Conservation Assessment and Strategy for a definition of ‘unsuitable’ habitat.	NLAA
5	Habitat Restoration	Forest and Shrub/Grassland Habitat Management - This includes aspen rejuvenation, shrub field maintenance and other types of ecosystem ‘driven’ projects designed to promote natural processes in an area.	LCAS habitat criteria are met within the respective LAU	NLAA
6	Noxious Weed Management	This includes chemical and biological treatments to noxious weeds within or adjacent to lynx habitat	Activity includes aerial application	NLAA
			Activity includes only ground application (no aerial application)	NE
7	Other Special Uses	This includes maintenance of existing sites, corridors, or other facilities and is often carried out by the entity that owns the structures or facilities.		NLAA

#	Activity Type	Activity Component	Screening Criteria	Determination
		Maintenance may include vegetation blading or cutting, or spraying to reduce brush and reduce the invasion of shrubs and trees among other activities.		
8	Mining	Existing quarries, recreational mining, small mines, and reclamation of small mines	Mines <5 acres, no winter time operation	NE
9	Ditches and Diversions			NE
10	Surveys	Surveys – This includes snow course surveys, track counts, habitat sampling, hair posts, remote camera stations, and radio telemetry among other methods.	Operations are during winter and include repeated snow compaction activities(cross country ski trips, snowmobile trips) on ungroomed trails generally not being used by public	NLAA
			Operations are during spring, summer, or fall	NE

APPENDIX E
CONSULTATION SUMMARY SHEET
FOR PROGRAMMATIC ASSESSMENT

**CONSULTATION SUMMARY SHEET INSTRUCTIONS FOR PROGRAMMATIC
BIOLOGICAL ASSESSMENT**

Summary sheets will be filled out by Project Biologists and reviewed by Forest Biologists. Project Biologists will submit summary sheets to Forest Biologists on a project-by-project basis. Forest Biologists will submit summary sheets, with one project per sheet, to the U.S. Fish and Wildlife Service quarterly and, as needed, these projects will be reviewed and discussed by the Level One Team to ensure the screening criteria are adequately interpreted and applied. There will be a random audit of a few projects each year to insure compliance and effectiveness of the screens and reporting requirements.

Page ____ of ____					
Administrative Unit: _____					
Contact: _____ <i>Project Biologist</i> _____				Reviewed by:	
Date: _____					
Project Name and Description	Species	Effects of Action	Cumulative Effects (ESA)	How does the project meet screening criteria?	Determination of Effects
<i>Project description should provide pertinent information including all aspects of the project that potentially affect T&E species. This includes but is not limited to: project name, project location including management unit if applicable,</i>	Grizzly Bear	<i>Briefly describe the overall effect for the entire project on the species and base it on the screening criteria.</i>	<i>Briefly describe the effects of future, non-federal actions that are reasonably likely to occur in the action area (this is the area where the effects of the project may be felt).</i>	<i>Specifically identify the screening criteria and describe how the project meets these specific criteria.</i>	<ul style="list-style-type: none"> • <i>No Effect</i> • <i>May affect not likely to adversely affect</i>
	Gray Wolf				

<i>timing of implementation and details of project activities.</i>	Bald Eagle				
	Canada Lynx				

CONSULTATION SUMMARY SHEET FOR PROGRAMMATIC BIOLOGICAL ASSESSMENT

Page ___ of ___					
Administrative Unit: _____					
Contact: _____			Reviewed by: _____		
Date: _____					
Project Name and Description	Species	Effects of Action	Cumulative Effects (ESA)	How does the project meet screening criteria?	Determination of Effects
	Grizzly Bear				
	Gray Wolf				
	Bald Eagle				
	Lynx				