

U.S. FISH AND WILDLIFE SERVICE
SPECIES ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Ursus arctos horribilis*

COMMON NAME: Grizzly Bear Populations in the North Cascades Ecosystem (warranted but precluded for reclassification from Threatened to Endangered)

LEAD REGION: Region 6

INFORMATION CURRENT AS OF: June 30, 2004

STATUS/ACTION:

Initial 12-month Petition Finding: not warranted
 warranted
 warranted but precluded (also complete (c) and (d) in section on petitioned candidate species- why action is precluded)

Species assessment - determined species did not meet the definition of endangered or threatened under the Act and, therefore, was not elevated to Candidate status.

New candidate

Continuing candidate for uplisting

Non-petitioned

Petitioned - Date petition received: Cascades--03/13/90

90-day positive - FR date: Cascades--08/07/90

12-month warranted but precluded - FR date: 07/24/91
- Reassessed 06/04/98

Yes Is the petition requesting a reclassification of a listed species?

Listing priority change

Former LP: 6

New LP: 3

Latest Date species became a Candidate: N/A

Candidate removal: Former LP:

A - Taxon is more abundant or widespread than previously believed or not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

F - Range is no longer a U.S. territory.

I - Insufficient information exists on biological vulnerability and threats to support listing.

M - Taxon mistakenly included in past notice of review.

N - Taxon may not meet the Act's definition of "species."

X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Mammal, *Ursidae*

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Western

United States, Alaska, Canada, and Mexico

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE:

Alaska, Idaho, Montana, Washington, Wyoming, and Canada

LEAD REGION CONTACT: Chuck Davis, (303) 236-4253

LEAD FIELD OFFICE CONTACT: Christopher Servheen, (406) 243-4903

BIOLOGICAL INFORMATION:

Species Description

In the lower 48 States, the average weight of grizzly bears is 400 to 600 pounds (200 to 300 kilograms) for males and 250 to 350 pounds (110 to 160 kilograms) for females. Grizzly bears are generally long-lived with some individuals known to have lived 40 years (Storer and Tevis 1955). Adult bears are individualistic in behavior and normally are solitary wanderers. Home ranges of adult bears frequently overlap. The home range of adult male grizzly bears is typically 3 to 5 times the size of adult females. The large home ranges of grizzly bears, particularly males, enhance genetic diversity in the population by enabling males to mate with numerous females. In the Cabinet-Yaak recovery zone a male bear had a home range of over 1,100 square miles (mi^2) (2,800 square kilometers (km^2)) from 1987 to 1992 (Kasworm et al. 2003). Grizzly bears have a promiscuous mating system. A single radio-collared adult female from the Cabinet-Yaak was observed over a period of 8 years with at least four different males prior to producing four litters of cubs, with more than one male present during at least two of those breeding seasons. Though we do not know that all these males successfully mated with this female, these observations indicate the ability of female bears even in this small population to have several mates. Recent genetic studies have determined that cubs from the same litter may have different fathers (Craighead et al 1998). These evolutionary strategies allow grizzly bears to exist at low population density and maintain genetic diversity. Grizzly bear population densities of one bear per 8 mi^2 (20 km^2) have been reported in Glacier National Park (Martinka 1974), but most populations are much less dense.

Mating occurs from May through July with a peak in mid June. Age of first reproduction and litter size may be related to nutritional state. Age of first reproduction varies from 3 to 8 years of age and litter size varies from one to four cubs. Cubs are born in a den in late January or early February and remain with the female for 2 to 3 years before subsequent mating and production of another litter.

The causes of natural mortality for grizzly bears are not well known. Parasites and disease do not appear to be significant causes of natural mortality (Jonkel and Cowan 1971, Kistchinskii 1972, Mundy and Flook 1973, Rogers and Rogers 1976). Bears do occasionally kill each other. Adults

have killed juveniles or other adults. Human-caused mortality is better documented with causes related to livestock protection, threats to human safety, hunting, illegal kills, and nuisance behavior involving garbage and animal foods.

Taxonomy

Grizzly bears (*Ursus arctos horribilis*) are vertebrates that belong to the Class *Mammalia*, Order *Carnivora*, and Family *Ursidae*.

The grizzly bear is currently listed as a single entity in the lower 48 conterminous States. In 1991, we concluded in a 12-month finding that uplisting of the grizzly bear population in the North Cascades Ecosystem was warranted but precluded by higher priority actions. These actions predated the policy regarding the recognition of Distinct Population Segments (DPS) (61 FR 4722). Additional biological information is required to complete an analysis of this recovery unit under our DPS policy. The Fish and Wildlife Service (FWS) expects that this information will be available within the next few years.

Habitat

Although the digestive system of bears is essentially that of a carnivore, bears are successful omnivores, and in some areas may be almost entirely herbivorous. Grizzly bears must avail themselves of foods rich in protein and carbohydrates in excess of maintenance in order to survive denning and post-denning periods. Grizzly bears are opportunistic feeders and will prey on almost any available food including ground squirrels, ungulates, carrion, and garbage. In areas where animal matter is less available, grasses, roots, bulbs, tubers, and fungi may be important in meeting protein requirements. High quality foods such as berries, nuts, and fish are important in some areas (Interagency Grizzly Bear Committee 1987).

In all areas studied, home ranges of grizzly bears encompass a mosaic of numerous habitat units or types. This phenomenon also may be related to the breadth of the species food habits. Use of cover varies with sex, age, reproductive status, human activity, or management (hunted or unhunted populations).

The unavailability of food, deep snow, and low air temperature appear to make winter sleep essential to bear survival (Craighead and Craighead 1972). Grizzly bears spend up to 6 months in dens beginning in October or November. Bears exhibit a marked decline in heart and respiration rate, but relatively slight drop in body temperature.

Historical Range/Current Range/Distribution

The grizzly bear historically occurred throughout the western half of the contiguous United States, western Canada, and most of Alaska. Presently, it is found in large numbers only in Alaska and western Canada. Within the contiguous United States, the grizzly bear remains in only six general areas, identified as recovery zones. These include: the Yellowstone of northwest Wyoming, eastern Idaho, and southwest Montana (9,500 mi² (25,000 km²) and population estimates >500), the Northern Continental Divide of north central Montana (9,600 mi² (25,000 km²)), the North Cascades of north central Washington (9,500 mi² (25,000 km²)), the Selkirk Mountains of north Idaho, northeast Washington, and southeast British Columbia (2,200 mi² (5,700 km²)), the Bitterroot Mountains of central Idaho and western Montana (5,800 mi² (15,000 km²)), and the Cabinet-Yaak of northwest Montana and northern Idaho (2,600 mi² (6,700 km²)). The Bitterroot Mountains have no current evidence of a grizzly bear population. The San Juan Mountains of Colorado also were identified as an area of grizzly

bear occurrence, but not as a recovery unit because it was “still being evaluated as a potential recovery area.” No evidence of grizzly bears have been found in the San Juan Mountains since a bear was killed there in 1979. Grizzly bears could be extinct from this area today.

The North Cascades recovery zone includes all of North Cascades National Park and most of the Mount Baker-Snoqualmie, Wenatchee, and Okanogan National Forests. A recovery plan chapter for the North Cascades was completed in 1997 (FWS 1997).

Population Estimates/Status

Historic population levels for the western United States are believed to be in the range of 50,000 animals. Within the contiguous United States, the grizzly bear populations estimates for the 6 identified recovery zones include--the Yellowstone population at >500, the Northern Continental Divide population at >400, the North Cascades population at <20, the Selkirk Mountains population at 40 to 50, the Cabinet-Yaak population at 30 to 40) and the Bitterroot Mountains where no bears have been documented in past 30 years.

The grizzly bear was historically abundant in the North Cascades Recovery Zone and vicinity, but numbers have declined substantially in recent decades. Sullivan (1983) compiled 233 reports of grizzly bears in the North Cascades and adjacent British Columbia from the mid-1800s through 1983. The last grizzly bear killed in the North Cascades was in Fisher Creek in 1967 (Sullivan 1983). The last verified sighting occurred in the Glacier Peak Wilderness during 1996 (Gaines pers. comm.). A grizzly bear habitat evaluation of the North Cascades was conducted from 1986 to 1991 (Almack et al. 1993, Gaines et al. 1994). The evaluation and a Technical Committee Review Team (Servheen et al. 1991), concluded that the ecosystem contained sufficient habitat to maintain and recover a grizzly bear population.

Current population levels are unknown, but believed to be less than 20 animals (Almack et al. 1993). Adjacent to the United States recovery zone is the North Cascades grizzly bear population unit in British Columbia. This unit encompasses about 3,800 mi² (9,800 km²) of habitat and an estimated population of less than 25 bears with 4 to 6 adult females ((North Cascades Grizzly Bear Recovery Team 2001). A graduate study project to identify resident grizzly bears by extraction of DNA from snagged hair was completed in 2002 (Romain 2002). The study sampled about 1,500 mi² (3,800 km²) of habitat in British Columbia and Washington (about 11 percent of the recovery zone), but detected only one grizzly bear in British Columbia. The study indicated that additional grizzly bears might have gone undetected, but that the population was small and dispersed.

THREATS:

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range.

The 1975 listing of the grizzly bear identified a substantial decrease in the range of the species in the conterminous 48 States and stated that timbering and other practices have resulted in an increase in access road and trail construction into formerly inaccessible areas. Since 1975, habitat protection measures have focused on providing secure habitat for bears that lessens opportunity for human-caused mortality. The North Cascades grizzly bear recovery plan (FWS 1997) population goal of 200 to 400 bears for this recovery zone and the expectation that these areas would remain connected to other grizzly bear populations in southern British Columbia.

Populations of grizzly bears and other large carnivores have persisted largely in those areas where significant expanses of relatively secure habitat were retained and where human-caused mortality was low. Threats to habitat remain through alteration of habitat, road construction, and the resulting increase of human access, which may result in displacement from important habitat. Cumulative impacts of timber harvest activities, mining, recreation, and other forest uses, and the associated road construction, can reduce the amount of secure, effective habitat for grizzly bears (FWS 1993). Approximately 41 percent of the North Cascades recovery zone is within a National Park and designated wilderness areas. Motorized access is limited or not permitted within these areas. Access management also has been addressed by an interagency task force that produced recommendations to standardize definitions and methods (Interagency Grizzly Bear Committee 1994). This report identified three parameters that are recommended as part of access management. These parameters are total motorized route density, open motorized route density, and core area. Core area is the percentage of the analysis area that contains no motorized travel routes or any restricted roads upon which administrative use may occur. Core areas may contain roads that are impassible due to permanent barriers or vegetation. The report recommended that for each recovery zone specific criteria be developed for route densities. Additionally, it recommended that core areas be monitored and managed based on female grizzly bear numbers in the recovery zone, other research results, and social or other management considerations. The North Cascades subcommittee of the Interagency Grizzly Bear Committee adopted Bear Management Unit (BMU) boundaries for the recovery zone in 1996 and an interim policy of no net loss of core areas within these BMUs. Efforts are currently underway to refine core areas through an evaluation of seasonal habitat distribution. No estimates or inventories of open road density or total road density are currently available.

The Washington Department of Natural Resources is currently renewing the Habitat Conservation Plan for lands inside the North Cascades grizzly bear recovery zone. This plan will promote grizzly bear conservation by addressing issues relating to sanitation, access management, public information, timber harvest, and grazing activities.

Forestry, mining, recreation, and road building also affect grizzly bear habitat in British Columbia. In 1995, the British Columbia provincial government developed a grizzly bear conservation strategy (British Columbia Ministry of Environment, Lands, and Parks 1995) to address these effects. A major goal of the British Columbia Grizzly Bear Conservation Strategy is to ensure effective, enhanced protection and management of habitat through land use planning

processes, new protected areas, and the Forest Practices Code. Many of these processes are ongoing, and have not had the opportunity to achieve the stated goals of grizzly bear habitat protection.

A draft recovery plan for the grizzly bear population in the British Columbia portion of the North Cascades was completed in 2001 (North Cascades Grizzly Bear Recovery Team 2001, Austin 2004) and a final decision is expected in 2004. The FWS was represented on the team drafting the plan. The recovery plan proposes to provide sufficient habitat quantity and quality for a recovered population of 150 bears through access management, forestry practices, and fire management on approximately 3,800 mi² (9,800 km²) in the North Cascades population unit. This plan recommends population augmentation by transplanting grizzly bears as a recovery technique.

At this point in time, we feel that threats to habitat still exist from new road construction in the United States (primarily through timber harvest; e.g. Wenatchee National Forest, Blagg Timber Sale) and lack of access management for the existing open road system. This poses a significant threat to the grizzly bear population in the North Cascades recovery zone, and warrants endangered status for that population.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes.

Unregulated killing of grizzly bears, prior to listing of the species as threatened in 1975, was a major reason for population declines. There have been no known human-caused grizzly bear mortalities in the North Cascades Ecosystem since listing in 1975. New road construction and high open road densities within grizzly bear habitat pose threats to bear populations resulting in the potential for bear mortality and the potential for bear habituation to humans that may lead to conflicts and the removal of bears. The recovery plan directs monitoring and aims for the reduction of human-caused grizzly bear mortality. This is accomplished through: intensive enforcement efforts to investigate and prosecute individuals illegally killing grizzly bears; educational efforts to minimize encounters among workers, recreationists, and local residents utilizing or living in grizzly bear habitat; improving sanitation procedures that could attract grizzly bears into proximity with humans; minimizing use of predator or rodent toxicants; and practicing lethal control of nuisance situations only when necessary. A nuisance bear protocol including contact information, release sites, and relocation guidelines was adopted by the Interagency Grizzly Bear North Cascades Subcommittee in 2002 and has been updated annually.

A public outreach effort directed at the east side of the Cascades began in 2002 (Morgan et al. 2004). This public and private partnership has produced several information session and developments of materials to inform the public about living, working, and recreating safely in bear country. Additional sessions and products are planned and the effort has been expanded to the west side of the Cascades dependent upon funding. A web site with bear information was made available at www.bearinfo.org.

Although current population trends are unknown, it does not appear that the historic overutilization experienced by this species continues today. Since being listed as threatened in 1975, there have been no known human-caused grizzly bear mortalities in the North Cascades Ecosystem. Thus, overutilization is not likely to be a significant factor in the reclassification decision.

C. Disease or Predation.

This factor was not identified as a threat to grizzly bears in the original listing. The recovery plan indicates that parasites and disease do not appear to be significant causes of natural mortality among bears (Jonkel and Cowan 1971, Kistchinskii 1972, Mundy and Flook 1973, Rogers and Rogers 1976). Research in Alaskan grizzly bears has shown previous exposure by some grizzly bears to rangiferine brucellosis and leptospirosis, though impacts to populations are unknown (Zarnke 1983). The most common internal parasite noted in grizzly bears is *Trichinella* for which 62 percent of grizzly bears tested positive from 1969 to 1981 (Greer 1982). Disease screening of captured black and grizzly bears in the Cabinet-Yaak, Selkirk Mountains, and Northern Continental Divide recovery zones during 2000 showed antibody levels consistent with exposure to several diseases, but no clinical sign of disease (Port et al. 2001). Effects of these levels of incidence are unknown but monitoring will continue.

Mortality summaries from the Yellowstone Ecosystem for 1959 to 1987 did not identify disease as a significant factor resulting in mortality (Craighead et al. 1988). Only 1 of 477 known mortalities was attributed to disease or parasites. Thirty-eight mortalities could not be identified by cause and some of these may have been related to disease or parasites, but these factors do not appear to be significant causes of mortality affecting Yellowstone grizzly bears.

The Montana Department of Fish, Wildlife, and Parks operate a wildlife laboratory at Bozeman. One of the laboratory's objectives is to necropsy wildlife specimens suspected of being diseased, parasitized, or dying of unknown causes, to identify the cause of death (Aune and Schladweiler 1995). Tissue samples are examined by Veterinary Pathologists at the State Diagnostic Laboratory. Though disease was not considered a threat at the time of listing, we will continue to have dead grizzly bears processed through a laboratory to determine cause of death and to maintain baseline information on diseases and parasites occurring in grizzly bears. This action will serve to continue monitoring of these agents as potential mortality sources. If disease is later determined to be a threat, we will evaluate and adopt specific measures to control the spread of any disease agent and treat infected animals, where such measures are possible. These measures will depend on the disease agent identified.

Monitoring of this factor will continue, but disease and natural mortality does not appear to be limiting the population. If levels of natural mortality do not decline in the future, the FWS will reconsider this factor.

D. The Inadequacy of Existing Regulatory Mechanisms.

The Endangered Species Act (Act) requires special protection and management of Federal lands for the grizzly bear, a threatened species. Federal and State personnel cooperatively developed guidelines for grizzly protection and management in the National Forests, National Parks, and Bureau of Land Management lands in the grizzly bear ecosystems in compliance with the Act (U.S. Forest Service (USFS) 1986). These Interagency Guidelines direct the USFS to establish and implement uniform planning and management procedures including:

1. A grizzly bear habitat mapping and cumulative effects analysis process (a tool for assessing effects of land management activities in time and space on occupied grizzly bear habitat).
2. The resource management guidelines and grizzly management situations as established in the “Interagency Grizzly Bear Management Guidelines” (Guidelines).
3. Quantification of recovery objectives in Forest Plans including--(a) the amount of habitat needed for recovery, expressed as habitat capability when possible, and (b) objectives to decrease preventable human-caused mortalities.

The core habitat inventory, core designation, and no net loss policy are examples of progress in this area. A satellite image based habitat mapping process was completed and published in 1994 (Gaines et al. 1994). The Interagency Grizzly Bear North Cascades subcommittee directed the mapping of situation lines as an additional goal. Full implementation of the Guidelines would maintain and enhance habitat, minimize potential for grizzly-human conflicts, and manage habitats essential to bear recovery for multiple land use benefits, to the extent these land uses are compatible with the goal of grizzly recovery. Land uses which cannot be made compatible with the goal of grizzly recovery, and are under USFS control, will be redirected or discontinued.

The Guidelines (USFS 1986) specified that at developed recreation sites, dispersed recreation sites, special use campsites, and fire camps all human and prepared livestock or pet food and human refuse will be made unavailable to grizzly bears through proper storage, handling, and disposal. Furthermore the Guidelines stated that in areas where survivorship of individual grizzly bears is considered important for recovery or conflicts have been documented that special care be taken for attractant storage and game meat storage at camps. The North Cascades grizzly bear recovery zone encompasses North Cascades National Park and portions of the Mount Baker-Snowqualmie, Wenatchee, and Okanogan National Forests, but there is inconsistency in application of food storage requirements. North Cascades National Park has food storage requirements, but the National Forest System does not. Special use permits on all forests contain food storage requirements. Several garbage dumpsters and cans have been replaced with bear resistant containers and an education campaign is underway to inform the public about proper storage of bear attractants.

The State of Washington and the province of British Columbia have maintained closed hunting seasons for grizzly bears since the animal was listed in 1975.

The North Cascades grizzly bear recovery chapter recommended the development of an

Environmental Impact Statement (EIS) to evaluate a range of alternatives to recover this population which would include consideration of population augmentation (FWS 1997). Funding for this effort has not been secured by the agencies.

Complete implementation of the Guidelines (USFS 1986) with sanitation regulations and the associated land management stratification and management direction is an important issue for this population, but does not appear to be a significant factor in the reclassification decision.

E. Other Natural or Manmade Factors Affecting Its Continued Existence.

The United States and Canadian portions of the North Cascades recovery zone may be isolated from other grizzly bear populations ((North Cascades Grizzly Bear Recovery Team 2001, Singleton et al. 2004). Because of their low numbers (e.g., fewer than 20 individuals) and the lack of demographic connection to other populations, grizzly bears in the North Cascades recovery zone are more vulnerable to environmental events such as floods, droughts, or fires (Boyce et al. 2001). These events may result in direct mortality or indirect mortality through effects on food supplies.

High-speed highways are an important factor in grizzly bear habitat that can affect habitat use and cause direct mortality. Highway reconstruction or expansion can lead to further fragmentation of grizzly bear habitat. These projects also can provide opportunities to improve crossing opportunities for grizzly bears and other forms of wildlife. We completed fieldwork on a study of high-speed highways on the periphery of Glacier National Park. Results from that study may prove useful in identifying impacts related to grizzly bears and making recommendations on future highway design and construction to maintain crossing opportunities. The goal is to maintain crossing opportunities on Highways 2 and 20 that bisect the North Cascades recovery zone. We are specifically concerned about increasing traffic levels and future improvements to the highway system such as creation of additional lanes for traffic. We will have an opportunity to monitor these activities within the United States through section 7 review of all Federal actions as long as these populations remain listed under the Act.

The North Cascades Grizzly Bear Recovery chapter (FWS 1997) stated the need for an EIS to evaluate recovery alternatives including population augmentation. Augmentation may be necessary to recover this population. Analysis of the small population in the North Cascades in British Columbia made the recommendation to augment that population (North Cascades Grizzly Bear Recovery Team 2001, Austin 2004). If the population on the United States side of the border is declining, augmentation to restore the population is likely to become more difficult because a smaller number of bears will be available in the base population.

Small population size and the potential for genetic isolation appear to warrant reclassification to endangered status.

SUMMARY OF REASONS FOR ADDITION, REMOVAL, OR LISTING PRIORITY CHANGE:

Reasons for the change in listing priority number include very low populations as evidenced through continuing lack of credible sightings and little success identifying animals through hair snagging and genetic analysis. Information indicating isolation of the population in British Columbia and the United States limits the chance of natural recovery given the small population size. Population augmentation may be the only way to recover this population.

N/A Is the removal based on a Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE) finding?

FOR PETITIONED SPECIES:

- a. Is up-listing warranted? **Yes**
- b. To date, has publication of a proposal to up-list been precluded by other higher priority listing actions? **Yes**
- c. Is a proposal to up-list the species as threatened or endangered in preparation? **No**
- d. If the answer to c. above is no, provide an explanation of why the action is precluded.

The Grizzly Bear is currently listed as threatened in the North Cascades Ecosystem under the Act and, therefore, receives protections of the Act. In addition, the FWS promulgated regulations extending take prohibitions under section 9 to threatened species. Prohibited actions under section 9 include, but are not limited to, take (i.e., harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in such activity). Under section 7 of the Act, Federal agencies must insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or threatened species. Given that these protections are already in place, we do not feel it is a prudent use of limited resources to uplist the North Cascades Ecosystem of Grizzly Bears before listing high priority candidate species.

Immediate issuance of a proposed rule and timely promulgation of a final rule for this species has been, for the preceding 12 months, and continues to be, precluded by higher priority listing actions. During the past 12 months, almost our entire national listing budget has been consumed by work on various listing actions to comply with court orders and court-approved settlement agreements, emergency listings, and essential litigation-related, administrative, and program management functions. We will continue to monitor the status of this species as new information becomes available. This review will determine if a change in status is warranted. For information on listing actions taken over the 12 months, see the discussion of "Progress on Revising the Lists," in the current CNOR which can be viewed on our Internet website (<http://endangered.fws.gov/>).

Furthermore, additional biological information must be obtained before we can analyze each of the recovery units under our policy regarding the recognition of DPS (61 FR 4722). To this end, the FWS is presently collecting and analyzing biological information on genetic relationships between the grizzly bears in the Northern Continental Divide recovery area in Montana; the Cabinet/Yaak recovery area in Montana and Idaho; the Selkirk recovery area in

Idaho and Washington; the North Cascades recovery area in Washington; and the Bitterroot recovery area in Idaho and Montana. The FWS also is collecting and analyzing movement information within and between these areas using very high frequency radio-collars and global positioning system collars; examining the effects of human developments such as highways on grizzly bear movements; and examining possible population linkage within and between areas. This information will be used in a comprehensive application of the DPS policy for these areas. We believe it is logical to complete these studies and collect this information before completing the application of the DPS policy to these remaining grizzly bear areas. The FWS expects that this information will be available within a few years.

LAND OWNERSHIP: North Cascades Recovery Zone encompasses approximately 9,565 mi² (24,770 km²) within north central Washington State. The recovery zone includes all of the North Cascades National Park and most of the Mount Baker Snoqualmie, Wenatchee, and Okanogan National Forests. The recovery zone is composed of about 85 percent Federal lands, 5 percent State lands, and 10 percent private lands.

PRELISTING: Prelisting activities are not applicable because the grizzly bear is already listed. However, various ongoing conservation activities may assist in reducing threats to the grizzly bear. These conservation activities include Federal Agency actions being conducted in conformance with the Guidelines, the Grizzly Bear Recovery Plan Chapters prepared for the North Cascades ecosystem, and section 7 of the Act (consultation).

DESCRIPTION OF MONITORING: Through the Interagency Grizzly Bear Committee and other contacts the FWS receives and disseminates information on the status of the species and habitat. The North Cascades subcommittee for the Interagency Grizzly Bear Committee has appointed a technical team to inventory and evaluate sightings of bears, sanitation issues, access management mapping, and several other management issues affecting bears in the recovery zone. The FWS is represented on this committee and technical team. Through consultation, the FWS monitors and regulates Federal activities that may affect grizzly bears or their habitat. The small number of animals, low population density of the species, large annual home ranges, wary nature of the species, dense habitat in which it occurs, and the controversial human aspects of recovering this species requires an active monitoring program.

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LISTING PRIORITY:

THREAT			
Magnitude	Immediacy	Taxonomy	Priority
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3*
	Non-imminent	Monotypic genus	4
		Species	5
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/population	9
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

Yes Have you promptly reviewed all of the information received regarding the species for the purpose of determining whether emergency listing is needed?

Rationale for Listing Priority Number:

Grizzly bears were listed as a threatened species in 1975 in the conterminous 48 States. In 1999, the FWS issued a warranted but precluded finding to uplist the North Cascades recovery zone population to endangered status. This uplisting action continues to be precluded by higher priority listing actions. The 1975 listing of grizzly bears has resulted in section 7 (Act) reviews of all federally funded projects and section 9 (Act) prohibitions on the import and export, take, illegal sale, or interstate sale or transport of the species or parts. A grizzly bear recovery plan was approved in 1982 and revised in 1993 (FWS 1993). The plan defines a sequence of actions that should provide for the conservation and recovery of the grizzly bear in selected areas of the conterminous 48 States. Listing and recovery actions have resulted in increased effort focused on the conservation of the species, however actions taken or funded thus far appear to be insufficient to address threats to the species (small population size, genetic isolation, sanitation measures to avoid conflicts that result in removal of animals). Some measures are still being developed or implemented and the full effect of those actions may not be judged at this time (motorized access management). Other threats to the species (such as population fragmentation and genetic isolation) are magnified because of a small population size and a low inherent reproductive rate. When uplisted to endangered, the FWS expects a number of minor changes in the future management of this population. For example, “a final regulation designating critical habitat . . . shall be published concurrently with the final publication implementing the determination that the population is endangered,” (16 U.S.C., 1531 et seq.). To date, critical habitat has not been required because the original listing predated the critical habitat amendment to the act. This designation will change the section 7 consultation process requiring the consideration of “adverse modification” to critical habitat. The FWS also may re-evaluate the recovery zone’s size, sufficiency, and boundaries based on the critical habitat designation.

Additionally, uplisting will change the direct take regulation for this population. Currently, nuisance bears can be relocated or destroyed if they constitute a demonstrable but non-immediate threat to human safety or commit significant depredation to lawfully present livestock under section 4(d) of the Act. Such flexibility is reduced for an endangered population under this section of the Act, but may be allowed in certain instances under section 10(a)(1)(A) of the Act. The impact of this loss of flexibility to the overall well being of the North Cascades population is hard to predict. Other intangible impacts such as increased public awareness also may result from uplisting.

Magnitude:

In the North Cascades recovery zone, grizzly bears face multiple threats. Habitat protection measures in the United States and Canada, largely in the form of motorized access management, are incomplete or lacking. In the United States there are now standards for open or total motorized route densities as occur in all other recovery zones. The species exhibits a very low reproductive rate that heightens the effects of excessive mortality through lower ability to replace animals lost to the population. The recovery zone currently contains a small population (<20 animals) with the last credible sighting occurring in 1996. Populations in British Columbia may be slightly larger (<25 animals) with credible sightings occurring within the last 3 years. However there is no evidence of a connection for this population to any other populations in the United States or Canada. Small population size coupled with complete genetic isolation of this population enhances the risk associated random human caused mortality events or natural mortality events arising from fluctuations in food production, accidental mortality, or unusual weather events. These factors justify the high magnitude threat level.

Imminence:

Small population size and possible fragmentation of the population into two areas dramatically increases the effects of any form of mortality on these segments. The last confirmed sighting of a grizzly bear in North Cascades recovery zone occurred in 1996. A 2001-2002 hair snag inventory of about 1,500 mi² (3,800 km²) of habitat in British Columbia and Washington (about 11 percent of the recovery zone), detected only one grizzly bear in British Columbia. The North Cascades Grizzly Bear Recovery chapter (FWS 1997) stated the need for an EIS to evaluate recovery alternatives including population augmentation. Augmentation may be necessary to recover this population. If the population on the United States side of the border is declining, augmentation to restore the population is likely to become more difficult because a smaller number of bears will be available in the base population. These threats are judged to be imminent in this recovery area.

Is Emergency Up-Listing Warranted?

No. Given the long lifespan of the species, the habitat protections that are currently in place (wilderness and National Park status), the protections against take associated with section 9 of the Act, and the review of Federal actions affecting the species under section 7 of the Act, FWS does not believe that emergency uplisting is warranted at this time. However the small size of this population is of great concern to the FWS. Population augmentation may be the only way to produce recovery. Emergency uplisting would not satisfy that need.

APPROVAL/CONCURRENCE:

Approve: Sharon R. Rose, Acting
Regional Director, Fish and Wildlife Service

September 10, 2004
Date

Concur: Matt Hogan, Acting
Director, Fish and Wildlife Service

5/2/05
Date

Do not concur: _____
Director, Fish and Wildlife Service

Date

Director's Remarks: _____

Date of annual review: June 30, 2004

Conducted by: Wayne Kasworm

Comments: _____

