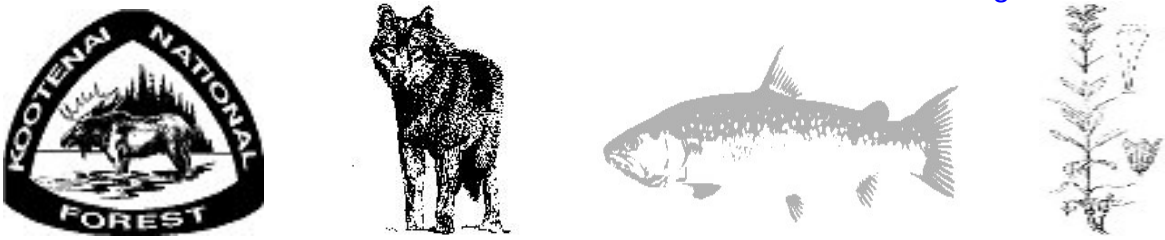

EXHIBIT 3

BIOLOGICAL ASSESSMENT SUPPLEMENT
for
THREATENED, ENDANGERED AND PROPOSED SPECIES
on the

Invasive Plant Management Project

Kootenai National Forest

Prepared by:

_____ March 26, 2007

WAYNE J. JOHNSON Date
Forest Wildlife Biologist

TABLE OF CONTENTS

SUMMARY OF FINDINGS

Implementation of the proposed federal action ***may affect, but is not likely to adversely affect*** the grizzly bear.

CONSULTATION REQUIREMENTS

In accordance with the Endangered Species Act and its implementing regulations, and FSM 2671.4, the Kootenai National Forest is required to request written concurrence with respect to the determination of potential effects on listed or proposed species. This project requires concurrence for the grizzly bear.

NEED FOR RE-ASSESSMENT BASED ON CHANGED CONDITIONS

The findings of this Biological Assessment are based on the best data and scientific information available at the time of preparation. If new information reveals effects that may impact threatened, endangered or proposed species or their habitats in a manner or to an extent not considered in this assessment; if the proposed action is subsequently modified in a manner that causes an effect that was not considered in this assessment; or if a new species is listed or habitat identified that may be affected by the action; a revised Biological Assessment should be prepared.

INTRODUCTION

The original Biological Assessment was completed on 10/30/2006 and submitted for concurrence on 11/1/2006. The U.S. Fish and Wildlife Service provided a concurrence letter on November 30, 2006.

New information regarding a portion of the data on which the original concurrence was based has arisen. Specifically, the District Court (Judge Molloy) set aside the Grizzly Bear Access Amendment EIS and Record of Decision (2004). In addition, new grizzly bear mortality data that occurred during the time period of the Wakkinen and Kasoworm road study (1997) has been identified, raising questions about the results of that study, as “best science” in the Cabinet-Yaak grizzly bear ecosystem, and about population trend estimates.

The potential effects, in relation to the new information, of the proposed federal action on grizzly bear within the areas of influence of the proposed action are addressed. The original B.A. is still valid for the other listed wildlife species (wolf, lynx, and bald eagle).

DESCRIPTION OF PROPOSED ACTION

The proposed project is located on the Kootenai National Forest. Project activities would occur as described in the original biological assessment.

PAST, PRESENT, AND FORSEEABLE FUTURE PROJECTS

Past projects were considered as described in the original biological assessment.

Grizzly Bear

Data Sources, Methods, Assumptions, Bounds of Analysis

Grizzly bear population ecology, biology, habitat description and relationships identified by research are described in USFWS (1993), the annual progress reports for the Cabinet-Yaak grizzly bear research (Kasworm et.al 1989-2006), and Kasworm and Manley (1988). That information is incorporated by reference. Grizzly bear occurrence data comes from recent District wildlife observation records, Forest historical data (NRIS FAUNA), and other agencies (USFWS, MFWP). The analysis boundary for project impacts to individuals and their habitat is BMU 5 within the recovery zone and the Cabinet Face grizzly bear outside the recovery zone reoccurring use polygon (here after BORZ polygon) (Wittinger et.al. 2002). The boundary for cumulative effects and making the effects determination is the recovery zone and the BORZ polygon.

Judge Molloy's ruling to set aside the Access Amendment decision removed the habitat parameter standards established in that decision. This means that the standards and analyses in place prior to the Access Amendment once again become the levels for effects analysis. They will remain in place until a new final access amendment EIS and ROD are completed. This document follows those analysis requirements. These requirements come from the 1987 KNF Forest Plan, Consultations since 1987 including the 1995 Amended Biological Opinion and Incidental Take Statement on the 1987 KNF Forest Plan, the Selkirk/Cabinet-Yaak Grizzly Bear Areas Interim Access Management Rule Set (12/1/1998); and the 3/25/2001 Settlement Agreement with the Alliance for the Wild Rockies.

Affected Environment/Existing Condition

Inside Recovery Zone:

The proposed project is in the Cabinet-Yaak grizzly bear recovery zone (USDI FWS 1993). Project activities may occur in ten Bear Management Units (BMUs # 1, 2, 5, 6, 10, 11, 12, 15, 16, and 17). BMUs equate to the size of a female grizzly home range and are used as the geographic area upon which to demonstrate and analyze the effects of management activities. The grizzly bear population for the CYE is currently estimated at 30-40 animals (Kasworm et al. 2005). Bear activity in the impacted BMUs includes the following (ibid):

Table 1: Bear Management inside the recovery zone.

BMU	1	2	5	6	10	11	12	15	16	17
Females* With cubs	no	yes	yes	yes	no	yes	yes	yes	yes	yes
Mortality**	0	0	0	0	0	1	4	0	2	0

*based on grizzly bear observations summary of 1999-2005
** Between 1999 and 2005 there were 12 total mortalities in the Cabinet-Yaak Ecosystem.

At the time of the original B.A. there was a 75% probability of a downward population trend for the recovery zone (Wakkinen and Kasworm 2004). Additional mortality information since the original B.A. is now available and a new population trend was determined to be 91% probability of a downward trend (Kasworm et.al. 2006).

Existing grizzly bear habitat conditions at the end of bear year 2006 are shown in Table 2.

Table 2: Existing Grizzly Bear Habitat Conditions by BMU (2006 Bear Year)

BMU	Percent Core	OMRD % of BMU > 1 mi/sqmi.	TMRD % of BMU > 2 mi/sq.mi.	Habitat Effectiveness % of BMU	Linear Open Road Density
1	85	12	7	88	0.19
2	77	20	15	79	0.32
5	60	27	23	71	0.52
6	54	35	33	66	0.63
10	51	41	28	64	0.76
11	52	28	28	75	0.44
12	56	42	30	62	0.54
15	45	30	33	71	0.43
16	53	28	26	73	0.47
17	54	31	20	74	0.55

Outside Recovery Zone:

Conditions have not changed since the original biological assessment. See original biological assessment for conditions outside the recovery zone.

Environmental Consequences

Inside Recovery Zone

The goal for grizzly bear management on the Kootenai National Forest is to provide sufficient quantity and quality of habitat to facilitate grizzly bear recovery. An integral part of the goal is to implement measures within the authority of the Forest Service to minimize human-caused grizzly bear mortalities. This goal is accomplished by achieving five objectives common to grizzly bear recovery as described by Harms (1990), and by a sixth objective specific to the Kootenai National Forest concerning acceptable incidental take (McMaster 1995). A number of measures are used to gauge whether the objectives are being met. The following analysis describes the potential effects, including cumulative effects of the selected action by examining how these measures are implemented and, thus, how the objectives relating to grizzly bear recovery are met.

In addition, consideration of "best science" is included where it relates to the objectives. According to the USFWS (2004) research conducted by Wakkinen and Kasworm (1997) in the Selkirk and Cabinet-Yaak Ecosystem (SCYE) that examined the concepts of OMRD, TMRD and core habitat is considered "best science" applicable to this area. Johnson (2007) supports this position.

Obj. 1: *provide adequate space to meet the spatial requirements of a recovered grizzly bear population.*

A. Habitat Effectiveness: Habitat effectiveness should be maintained equal to or greater than 70 percent of the BMU. Habitat effectiveness is calculated as a percentage of the BMU. It is the total BMU acres minus MS-3 lands and all land further than ¼ mile from roads open during the bear year (4/1-11/15) and major activities occurring during the bear year. See Table 2 for the existing habitat effectiveness. A wide range of impacts to wildlife due to aircraft over-flights have been reported in the literature. Grizzly bears have been noted to panic and flee areas from over-flights in nearly all cases where they have been observed (USDI National Park Service 1994). In Glacier National Park observations have indicated a similar flight response (ibid). Little research has been conducted regarding long-term impacts of frequent over-flights; however, indications are that frequent and repeated over-flights may impose a burden on the energy and nutrient supply for animals (ibid). Helicopter use at low altitudes (≤ 500 meters), that is low in frequency (≤ 1 pass) and short in duration (≤ 1 day), may have effects on grizzly bears, but the effects are short-term, difficult to measure, and not likely to adversely affect bears (i.e. would not affect feeding, sheltering, or breeding to a measurable extent) (Montana/Northern Idaho Level 1 Team 2006). The proposed aerial herbicide application would consist of multiple passes in one treatment area within a BMU over the course of one day, not to exceed 2 days. Exceeding one low altitude flight pass over the course of one day would result in a short-term avoidance of the treatment area by bears for one to two days. Bears may also avoid the surrounding drainage unless a ridgeline or other topographic barrier absorbs the noise disturbance of the helicopter. Avoidance would most likely affect bears for one to two days for a given treatment area. A design criterion requires an adjacent undisturbed area be provided during the aerial spray activity. The potential avoidance would not result in a long-term effect on bears because adjacent areas with suitable food and shelter would be immediately available. The project limits activities to no more than the allowed seasonal administrative use levels. In addition, aerial spraying is limited to no more than 2 days per BMU. This short-term disturbance is not likely to cause long-term displacement. Overall habitat effectiveness should remain unchanged.

B. Core Areas: The requirements of a core area include: no motorized access (roads or trails) during the active bear season, and be at least 0.31 miles from open or gated roads. The goal is that federal agencies will work toward attaining a core area of 55% in the BMU (Interim Access Management Rule Set for SCYE 1998) (SCYE 1998). Another goal is that no net loss of core area will occur on federal ownership within the BMU

(Interim Access Management Rule Set for SCYE 1998). See Table 2 for the existing core condition. The project will not change existing conditions. See original B.A. for details.

C. OMRD: Open Motorized Route Density (OMRD) is calculated on a BMU basis using moving window analysis. The goal is for no net increase in OMRD on National Forest lands within the BMU (Interim Access Management Rule Set for SCYE 1998). See Table 2 for the existing OMRDs. The project will not change existing conditions. See original B.A. for details.

D. TMRD: Total Motorized Route Density is calculated on a BMU basis using moving window analysis. The goal is for no net increase in TMRD on National Forest lands within the BMU (Interim Access Management Rule Set for SCYE 1998). See Table 2 for existing TMRDs. The project will not change existing conditions. See original B.A. for details.

E. Linear Road Density: is calculated on MS-1 lands for the BMU and should not exceed 0.75 miles per square mile. Individual Bear Analysis Areas (BAA) may exceed 0.75 mi./sq.mile if the proposed action occurs in the BAA or if previous consultation has established a different level. See Table 2 for existing linear road densities in each of the BMUs. The project keeps road use within the seasonal administrative use limits and gated roads used for the project remain closed to the public. This maintains existing linear ORDs. The project does not involve new road construction so linear TRDs do not change.

Obj. 2: *Manage for an adequate distribution of bears across the ecosystem.*

- Opening size: Unit sizes, in combination with existing units or natural openings, should normally be less than 40 acres. The proposed action does not create any openings.
- Movement corridors: Unharvested corridors > 600 feet in width should be maintained between proposed harvest units and existing harvest units and natural openings. The project will not change existing movement corridors.
- Seasonal components: Schedule proposed activities to avoid known spring habitats during spring use period (4/1-6/15) and schedule winter activities to occur when bears are in the den (11/30-3/31). Avoid activity in close proximity of known den sites during the denning period. Aerial weed spraying would avoid known spring habitats during the spring use period (4/1-6/15). Spraying would not occur during the denning period as it would be ineffective due to plant physiology.
- Road density and displacement areas: Displacement areas are provided in the core habitat blocks. Road density and core are discussed under Objectives 1 and 6.

Obj. 3: *Manage for an acceptable level of mortality risk.*

Most human-caused grizzly bear mortalities on the Kootenai National Forest have resulted from interactions between bears and big game hunters (Kasworm and Manley 1988). Grizzly bear

vulnerability to human-caused mortality is partially a function of habitat security. Therefore, mortality risk can be partially assessed by the use of habitat factors that maintain or enhance habitat security.

Maintaining appropriate opening sizes and movement corridors are addressed under Objective 2. Maintaining road densities and displacement areas is addressed under Objectives 1 and 6.

None of the alternatives would increase public access that would contribute to an increase in mortality risk.

The project does not involve camping so food attractants will not be a problem. There is no livestock grazing associated with the project.

Obj. 4: *Maintain/Improve habitat suitability with respect to bear food production.*

Meeting objectives 1 and 2 has been determined to meet the intent of the Interagency Grizzly Bear Guidelines (Buterbaugh 1991).

Containment of invasive plant spread protects native plant species that provide suitable bear food, thus the project maintains or improves (where invasive species are eliminated) habitat suitability.

If nonselective herbicides are chosen as the best control method, treated areas would have reduced foraging capacity for grizzly bears because some non-target plants would be killed by these broad-spectrum herbicides. A return of and increase in foraging capacity would occur within 2-3 years of herbicide treatment (Rice et al. 1997, p. 631).

Obj. 5: *Meet the management direction outlined in the Interagency Grizzly Bear Guidelines for Management Situation 1, 2, & 3.*

Meeting Objectives 1-4 has been determined to meet the intent of the Interagency Grizzly Bear Guidelines (Buterbaugh 1991). This project meets objectives 1-4.

Obj. 6: *Meet the interim management direction specified in the July 27, 1995 Forest Plan Incidental Take Statement to avoid exceeding authorized incidental take levels.*

This is met by meeting the OMRD, TMRD and Core objectives discussed under objective 1. It is also met because the project does not increase existing density of open motorized trails.

Outside Recovery Zone

The effects analysis on bears and habitat outside the recovery zone in the original B.A. has not changed and is still valid. Baseline linear ORDs and TRDs are maintained in the affected BORZ polygons.

Cumulative Effects

The current cumulative report on habitat effectiveness is in the 2003 KNF Forest Plan Monitoring Report item C-7 (KNF Monitoring files). This report shows a slight improvement across the entire recovery zone from 72% to 73% between 1994 and 2003.

The cumulative effects analysis in the original B.A. remains unchanged.

Regulatory Consistency

The project is in compliance with ESA. It meets Forest Plan standards (or maintains existing conditions) and term and condition of applicable biological opinions.

Statement of Findings

The finding does not change from the original B.A.

The proposed action, Invasive Plant Management actions, **may affect, but is not likely to adversely affect** the grizzly bear. This determination is based on:

1) Disturbances in core that could cause bears to avoid the area affected by aerial treatment would only be for a short time (no more than two days per year by BMU).

2) Reductions in spring forage occurring on and along roads would only be for a short time (1-2 seasons at most), before an increase in native plant production occurs.

3) There would be long-term benefits from reducing established weed populations.

4) The proposed action should not cause additional grizzly bear mortality risk in the recovery zone because:

a) OMRD, TMRD, and core percentages are not changed from existing conditions.
b) Habitat Effectiveness would meet the 70% standard or be maintained at the existing condition in BMUs not currently meeting the standard.
c) There would be no changes in road densities. Linear ORD for the impacted BMUs would meet the 0.75 miles per square mile standard or maintain existing conditions in BMUs not currently meeting the standard.

5) The proposed action should not cause additional grizzly bear mortality risk outside the recovery zone because:

d) Linear open and total road densities in the BORZ polygons are maintained, which meet desired conditions.
e) There will be no camping activity associated with the project, so food attractants will not be created
f) The project does not involve livestock grazing activities.

LITERATURE CITED

GRIZZLY BEAR

Buterbaugh, G. L. 1991. Biological Opinion on Grouse-Keeler Timber Sale Biological Assessment, Kootenai National Forest. U.S. Fish and Wildlife Service, Denver, CO. 22 pp.

Harms, D. 1990. Summary of Interagency biologist meeting of February 22, 1990: Grizzly bear standards and guidelines. Unpublished meeting notes. U.S. Fish and Wildlife Service, Helena, MT. 20 pp.

Johnson, Wayne J. 2007. In defense of Wakkinen and Kasworm (1997) paper as "best science" in the Selkirk and Cabinet-Yaak Grizzly Bear Ecosystems. Unpublished Report, USDA Forest Service, Kootenai NF. Libby, MT. 8 pp

Kasworm, Wayne F., Harry Carriles, Thomas G. Radandt and Christopher Servheen. 2006. Cabinet-Yaak Grizzly Bear Recovery Area 2005 Research and Monitoring Progress Report. USFWS Grizzly Bear Recovery Coordinator's Office, Univ. of MT, Missoula, MT. 73pp.

Kasworm, Wayne F. H. Carriles and T.G. Radant. 2005.Cabinet-Yaak Grizzly Bear Recovery Area 2004 Research and Monitoring Progress Report. USFWS, Univ. of MT, Missoula, MT. 69 pp

Kasworm, Wayne F. H. Carriles and T.G. Radant. 2004. Cabinet-Yaak Grizzly Bear Recovery Area 2003 Research and Monitoring Progress Report. USFWS, Univ. of MT, Missoula, MT. 62 pp

Kasworm, Wayne and Timothy Manley. 1988. Grizzly Bear and Black Bear Ecology in the Cabinet Mountains of Northwest Montana. MDFWP, Helena, MT. 122 pp.

McMaster, Kemper 1995. Amended Biological Opinion on Kootenai Forest Plan to include an Incidental Take Statement. U.S. Fish and Wildlife Service, Helena, MT. 15pp.

Molloy, Donald W. 2006. Case CV 04-236-M-DWM Order December, 13, 2006: Cabinet Resource Group, Great Bear Foundation, Idaho Conservation League, Natural Resource Defense Council, and Selkirk Conservation Alliance vs. United States Fish and Wildlife Service and United States Forest Service.

Montana/North Idaho Level 1 Team. 2006. Guide to Effects Analysis of Helicopter Use in Grizzly Bear Habitat. Unpublished Report. USDA Forest Service Northern Region, Missoula MT. and U.S. Fish and Wildlife Service, Helena MT. 6 pp.

Selkirk/Cabinet Yaak Subcommittee (SCYE). 1998. Selkirk/Cabinet-Yaak Grizzly Bear Recovery Areas Interim Access Management Rule Set. Unpublished Report. USDI U.S. Fish and Wildlife Service; USDA Forest Service; Idaho Dept. Fish and Game; Idaho Dept. of Lands; Washington Dept. of Fish and Wildlife; Montana Fish, Wildlife and Parks; and USDI Bureau of Land Management. 10 pp.

U.S. Fish and Wildlife Service. 2004. Biological Opinion for the Kootenai, Idaho Panhandle, and Lolo National Forests Land and Resource Management Plans Amendment for Motorized Access Management within the Selkirk and Cabinet Yaak Grizzly Bear Recovery Zones. USFWS Upper Columbia (Spokane, WA) and Montana (Helena, MT) Field Offices. February 9, 2004. 163 pp.

U.S. Fish and Wildlife Service. 1993. Grizzly bear recovery plan. Missoula, MT. 181 pp.

USFS. 2005. Forest Plan Monitoring and Evaluation Report Fiscal Years 2003-2004. Kootenai National Forest, USDA Forest Service, Libby, MT. 40 pp.

Wakkinen, Wayne and Wayne Kasworm. 1997. Grizzly Bear and Road Density Relationships in the Selkirk and Cabinet-Yaak Recovery Zones. Idaho Dept. Fish & Game (Bonners Ferry, ID) and USFWS Libby, MT. 28pp.

Wittinger, Tom, et.al. 2002 (unpublished). Grizzly Bear Distribution outside of Recovery Zones. USDA Forest Service, Northern Region, Missoula, MT 2 pp.

.