



# United States Department of the Interior

## U.S. Fish and Wildlife Service Idaho Fish and Wildlife Office - Spokane

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March 29, 2018

Erick Walker, District Ranger  
Sandpoint Ranger District  
Idaho Panhandle National Forest  
1602 Ontario St.  
Sandpoint, ID 83864

Subject: Grouse Bear Management Unit Compliance Project—Bonner and Boundary  
Counties, Idaho—Biological Opinion  
In Reply Refer To: 01EIFW00-2018-F-0279

Dear Mr. Walker:

Enclosed is the U.S. Fish and Wildlife Service's (Service) Biological Opinion (Opinion) for the U.S. Forest Service's determinations of effect on species listed under the Endangered Species Act (Act) of 1973, as amended, for the Idaho Panhandle National Forest's (Forest) proposed Grouse Bear Management Unit (BMU) Compliance Project (Project) located in Boundary and Bonner Counties, Idaho.

In a letter dated December 22, 2017 and received by the Service December 27, 2017, the Forest requested formal consultation on the determination under section 7 of the Act that the Project may affect, and is likely to adversely affect grizzly bear (*Ursus arctos horribilis*). The Forest also determined that the Project may affect, but is not likely to adversely affect bull trout (*Salvelinus confluentus*) and its designated critical habitat, and has requested concurrence with these determinations. The Forest has determined that the proposed Project is not likely to adversely affect Canada lynx (*Lynx canadensis*), and that the proposed Project tiers to the Forest's 2014 Programmatic Biological Assessment for Activities that are Not Likely to Adversely Affect Canada Lynx, Grizzly Bear and Designated Canada Lynx Critical Habitat (Service reference number: 06EI1000-2015-I-0019). The Service acknowledges this determination.

The enclosed Opinion is based primarily on our review of the proposed action, as described in your Biological Assessment, dated December 11, 2017, and received in our office December 27, 2017, which was prepared in accordance with section 7 of the Act, additional information received by email on January 19, January 25, February 26, March 8, 2018, and the anticipated effects of the action on listed species. Our Opinion concludes that the proposed Project will not jeopardize the survival or recovery of the grizzly bear. We concur with your determination that the Project may affect, but is not likely to adversely affect bull trout and its designated critical habitat. A complete record of this consultation is on file at this office.

Thank you for your continued interest in the conservation of threatened and endangered species. Please contact Katherine Sarensen at (509) 893-8021 if you have questions concerning this Opinion.

Sincerely,

*For* Gregory M. Hughes  
State Supervisor

cc: IDFG, Coeur d'Alene (Siitari)

**BIOLOGICAL OPINION  
FOR THE  
GROUSE BEAR MANAGEMENT UNIT COMPLIANCE PROJECT  
01EIFW00-2018-F-0279**



**U.S. FISH AND WILDLIFE SERVICE  
IDAHO FISH AND WILDLIFE OFFICE  
SPOKANE VALLEY, WASHINGTON**

**Supervisor** \_\_\_\_\_

*for Gregory M. Hughes*

**Date** \_\_\_\_\_

March 29, 2018

## Table of Contents

1. BACKGROUND AND INFORMAL CONSULTATION .....	5
1.1 Introduction .....	5
1.2 Consultation History.....	5
1.3 Informal Consultations .....	6
1.3.1 Bull Trout and Bull Trout Critical Habitat.....	6
2. BIOLOGICAL OPINION.....	8
2.1 Description of the Proposed Action .....	8
2.1.1 Action Area.....	8
2.1.2 Proposed Action .....	8
2.1.3 Conservation Measures.....	16
2.2 Analytical Framework for the Jeopardy Determination .....	16
2.2.1 Jeopardy Determination .....	16
2.3 Status of the Species .....	17
2.3.1 Grizzly Bear .....	17
2.4 Environmental Baseline of the Action Area.....	21
2.4.1 Status of the Species in the Action Area.....	21
2.4.2 Factors Affecting the Species in the Action Area.....	22
2.5 Effects of the Proposed Action.....	23
2.5.1 Direct and Indirect Effects of the Proposed Action .....	23
2.5.2 Effects of Interrelated or Interdependent Actions.....	30
2.6 Cumulative Effects .....	30
2.7 Conclusion.....	31
2.8 Incidental Take Statement .....	32
2.8.1 Form and Amount or Extent of Take Anticipated .....	33
2.8.2 Effect of the Take.....	34
2.8.3 Reasonable and Prudent Measures.....	34
2.9 Conservation Recommendations .....	35
2.10 Reinitiation Notice.....	35
3. LITERATURE CITED .....	36
3.1 Published Literature .....	36
3.2 <i>In Litteris</i> References .....	37

4. APPENDICES ..... 38  
4.1 Appendix A. Grizzly Bear Management and Protection Plan ..... 38

**List of Tables**

Table 1. Roads proposed for closure, including the existing condition. Excerpted from the Assessment (USFS 2017, Table 1, pp. 2-3). ..... 11  
Table 2. Percent change in the condition of Open Motorized Route Density due to the Twentymile Creek Project currently underway, during road storage and closure activities, and during the relocation of Forest Service Road (FSR) 280. The standard for OMRD in Grouse BMU is less than or equal to 59 percent. .... 27

**List of Figures**

Figure 1. Grouse BMU Compliance Project boundary, northern Idaho. Map excerpted from the Assessment (USFS 2017, p. 27). ..... 9  
Figure 2. Grouse BMU Compliance Project area (black hatch lines) with proposed actions (pink: road storage, yellow: road closure, red: road decommissioning, and teal/black: new Forest System Road 280). Map excerpted from the Assessment (USFS 2017, p. 28). ..... 10  
Figure 3. Road storage and closures will be completed in 3 phases followed by the FSR 280 relocation. Map excerpted from the Assessment (USFS 2017, p. 27) and amended to show with additional information..... 14  
Figure 4. Proposed reroute of Forest Service Road 280 (teal and black line). The current segment of FSR 280 (red lines) will be decommissioned, converting the eastern 0.32 miles to trail, from the junction of FSR 280C to Road 2639, and leaving the remaining segment impassable. Map excerpted from the Assessment (USFS 2017, p. 30). ..... 15  
Figure 5. Current and historic grizzly bear range and location of recovery ecosystems (in USFWS 2011, p. A-11). Inset map illustrates historic (grey shade) and current grizzly bear distribution (dark blue) (adapted from Proctor *et al.* 2012). GYA = Greater Yellowstone Area; NCDE = Northern Continental Divide Ecosystem; CYE = Cabinet-Yaak Ecosystem; SE = Selkirk Ecosystem; BE = Bitterroot Ecosystem; NCASC = North Cascades Ecosystem. .... 18  
Figure 6. Core gains (yellow) due to road storage and closure, and the FSR 280 road relocation. Blue hatch symbolizes existing Core. Map was modified from USFS 2017, p. 35. .... 29

# 1. BACKGROUND AND INFORMAL CONSULTATION

## 1.1 Introduction

The U.S. Fish and Wildlife Service (Service) has prepared this Biological Opinion (Opinion) for the effects of the Grouse Bear Management Unit (BMU) Compliance Project (Project) and its potential effects on the threatened grizzly bear (*Ursus arctos horribilis*). In a letter dated December 22, 2017 and received by the Service on December 27, 2017, the Idaho Panhandle National Forest (Forest) requested formal consultation with the Service under section 7 of the Endangered Species Act (Act) of 1973, as amended, for its proposal to carry out the action. The Forest determined that the proposed action is likely to adversely affect the grizzly bear. As described in this Opinion, and based on the Biological Assessment (Assessment) (USFS 2017, entire) developed by the Forest, and other information, the Service has concluded that the action, as proposed, is not likely to jeopardize the continued existence of the grizzly bear.

The Forest has determined that the proposed Project may affect, but is not likely to adversely affect bull trout (*Salvelinus confluentus*) or its designated critical habitat, and has requested concurrence with these determinations. Upon review of the Assessment, the Service concurs with this determination. The Forest has also determined that the proposed action is not likely to adversely affect Canada lynx (*Lynx canadensis*). Project activities tier to the Programmatic Biological Assessment for Activities that are Not Likely to Adversely Affect Canada Lynx, Grizzly Bear and Designated Canada Lynx Critical Habitat (Service reference number 06E11000-2015-I-0019); therefore, Project effects to Canada lynx will not be discussed any further in this Opinion.

## 1.2 Consultation History

The following correspondence and meetings have taken place between the Forest and the Service prior to issuance of this Opinion.

June 28, 2017	The Forest introduced the Project at the June 2017 Level 1 meeting.
Sept 15, 2017	Draft Assessment for the Project received by the Service.
Oct 11, 2017	The Service provided comments on the draft Assessment to the Forest.
Nov 30, 2017	The Service received a response to comments from the Forest.
Dec 27, 2017	The Service received the final Assessment and official request for formal consultation on the Project.
Jan 19, 2017	The Forest provided the Service additional Project information.
Jan 25, 2018	The Forest provided the Service additional Project information.
Feb 9, 2018	The Service submitted the draft Opinion to the Forest for review.

- Feb 14, 2018            The Service received a phone call from the Forest to inform the Service of additional effects from Project activities that were not discussed in the original Assessment and to decide how to proceed.
- Feb 26, 2018            The Forest provided the Service with additional Project information, introducing additional effects from Project activities.
- Feb 28, 2018            The Forest provided the Service with additional Project information.
- Mar 6, 2018            The Forest provided the Service with additional Project information and came to an agreement on the new time frame to complete consultation.
- Mar 8, 2018            The Forest provided the Service with additional Project information.
- Mar 9, 2018            The Service submitted the draft Opinion to the Forest for review.

A complete decisional record for this consultation is on file at the Service's Idaho Fish and Wildlife Office- Spokane.

## **1.3 Informal Consultations**

### **1.3.1 Bull Trout and Bull Trout Critical Habitat**

The Project proposes road storage and closures, including road recontouring, waterbar installation, and culvert removal, within the Trail Creek, Rapid Lightning Creek, Trapper Creek, and North Fork Grouse Creek watersheds; and road relocation, with associated road decommissioning and bank stabilization activities, in the Grouse Creek watershed. Bull trout and its critical habitat may be affected by in-stream activities during culvert removal or bank stabilization; increases in suspended sediment or turbidity; noise; or increased potential of chemical contamination.

The Service concurs with the Forest's determination that the Project may effect, but is not likely to adversely affect bull trout and its designated critical habitat, as described in the Assessment (USFS 2017) and in this accompanying Opinion. Our concurrence is based on the following rationales.

- The Project is unlikely to affect bull trout in Trail Creek, Rapid Lightning Creek, or Trapper Creek, as bull trout are not known to occur in these streams. According to the Assessment (USFS 2017, p. 5), a number of recent surveys by the Idaho Department of Fish and Game (in 2010 and 2015) and the Forest (in 2011, 2014, and 2017) failed to detect bull trout. None of these streams have been designated as bull trout critical habitat.
- Road storage will occur in the North Fork Grouse Creek watershed. North Fork Grouse Creek is not designated bull trout critical habitat; however, four juvenile bull trout were detected in the creek during a 2015 survey. These bull trout were captured downstream of a natural bedrock barrier. The Project will occur upstream of the barrier where bull trout presence has not been detected; therefore, bull trout presence in the action area is unlikely. The Project may result in increased sedimentation due to culvert removal and other ground disturbance activities, but the nearest culvert proposed for removal occurs

over 8,700 feet upstream in BRC Creek<sup>1</sup>, a tributary to North Fork Grouse Creek. In addition, the Forest anticipates very little ground disturbance during other road storage activities (USFS 2017, p. 6) because vegetation is already reclaiming the road and because waterbar installation, a potentially significant source of sedimentation, will not occur in this watershed.

- Road relocation, including bank stabilization at 3 locations within a 2,600-foot stream segment, will occur along Grouse Creek. Bull trout are present in Grouse Creek, and the action area straddles the boundary between designated spawning and rearing (SR) habitat and foraging, migrating, and overwintering (FMO) habitat. Project activities in the Grouse Creek drainage are not likely to significantly affect bull trout or its critical habitat for the following reasons:
  - Only 0.5 mile of road is located near SR habitat, but the road is at least 300 feet from the stream. Because of this natural buffer between the stream and the Project area, we do not expect Project activities to affect the bull trout found within SR habitat or its SR critical habitat.
  - The Project will be implemented between July 15 and August 31 when spawning adults have already migrated through the action area, and when summer water temperatures exceed juvenile tolerance thresholds (USFS 2017, p. 10). Effects to bull trout in the FMO reach are expected to be discountable because we do not expect bull trout to be present in the stream during Project implementation.
  - Effects to critical habitat from increases in sediment or turbidity, noise, and potential chemical contamination will be insignificant because the Project includes a number of conservation measures specifically designed to reduce impacts to bull trout and its critical habitat (USFS 2017, pp. 23-24). Measures include, but are not limited to, working during the summer low flow conditions; using sediment control devices such as straw bales, silt fencing, or straw wattles; keeping equipment out of live water; fueling and maintaining vehicles a minimum of 100 feet from water; reseeding disturbed soils; and other proven-effective measures.
  - The proposed bank stabilization activities will be a short-term disturbance limited to a total of 300 feet of the right bank, located within an 8.3-mile long stretch of bull trout FMO critical habitat. Therefore, there would be adequate alternative habitat nearby in the unlikely event that bull trout are present.
  - Project activities along Grouse Creek will benefit bull trout critical habitat through the installation of tree revetments and rootwads that increase channel complexity and restore floodplain connectivity. These activities will reduce sedimentation and promote a healthier riparian area.

In summary, road storage and closure activities, which include road recontouring, culvert removal, and waterbar installation, and road relocation activities, which include road decommissioning and streambank stabilization, have the potential to affect bull trout and its

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<sup>1</sup> The acronym “BCR” is of unknown origin, but may have been a reference to the now defunct Blister Rust Control program in operation on the Forest in the 1900s (S. Stash, pers. comm. February 2, 2018). Both the Forest maps and United States Geological Survey topological maps simply refer to this creek as “BRC Creek.”

designated critical habitat. Effects to bull trout or its designated critical habitat are not expected to occur within the Trail Creek, Rapid Lightning Creek, Trapper Creek, or North Fork Grouse Creek watersheds. Bank stabilization at three locations, totaling 300 feet of streambank, may affect bull trout and its designated critical habitat along Grouse Creek. However, the Project includes a number of measures designed to minimize potential effects and, once complete, the Grouse Creek activities will result in a reduction in total road density in the watershed, reduced sedimentation to the creek, and a healthier riparian area. Therefore, due to the minimal amount of disturbance, and timing and location of the Project, potential short-term minor impacts to bull trout and its designated critical habitat are expected to be insignificant or discountable in the short-term and may be beneficial in the long-term.

## **2. BIOLOGICAL OPINION**

### **2.1 Description of the Proposed Action**

This section describes the proposed Federal action, including any measures that may avoid, minimize, or mitigate adverse effects to listed species or critical habitat, and the extent of the geographic area affected by the action (i.e., the action area). The term “action” is defined in the implementing regulations for section 7 as “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas.”

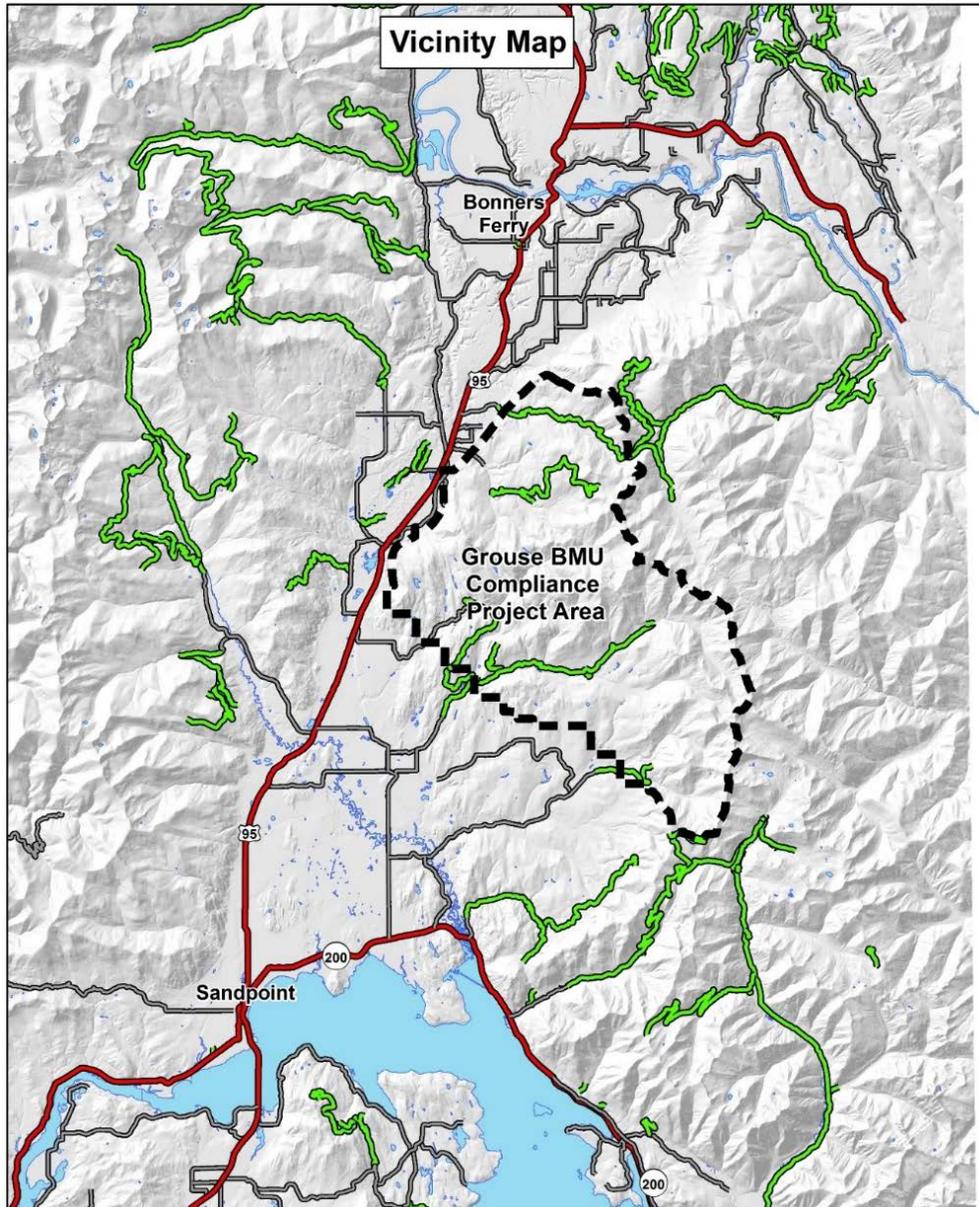
#### **2.1.1 Action Area**

The action area is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02). In delineating the action area, we evaluated the farthest-reaching physical, chemical, and biotic effects of the action on the environment. The Project area is located within the Grouse BMU, one of 22 BMUs located within the Cabinet Yaak grizzly bear recovery zone. Grouse BMU is located approximately 18 miles north of Sandpoint, Idaho, and covers approximately 31,000 acres (Figure 1). It is located near McArthur Lake (Boundary County) on the east side of Highway 95 and northwest of Lunch Peak (Bonner County). The Grouse BMU is a patchwork of National Forest System lands, State of Idaho lands, commercial timber lands, and private property. The legal description of included lands is provided in the Assessment (USFS 2017, p. 4).

#### **2.1.2 Proposed Action**

The purpose of the Project, as stated in the Assessment, is to meet the standards for wheeled motorized vehicle access and security guidelines outlined in the Forest Plan Amendments for the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones (USFS 2011) and to reduce resource risks along Grouse Creek.

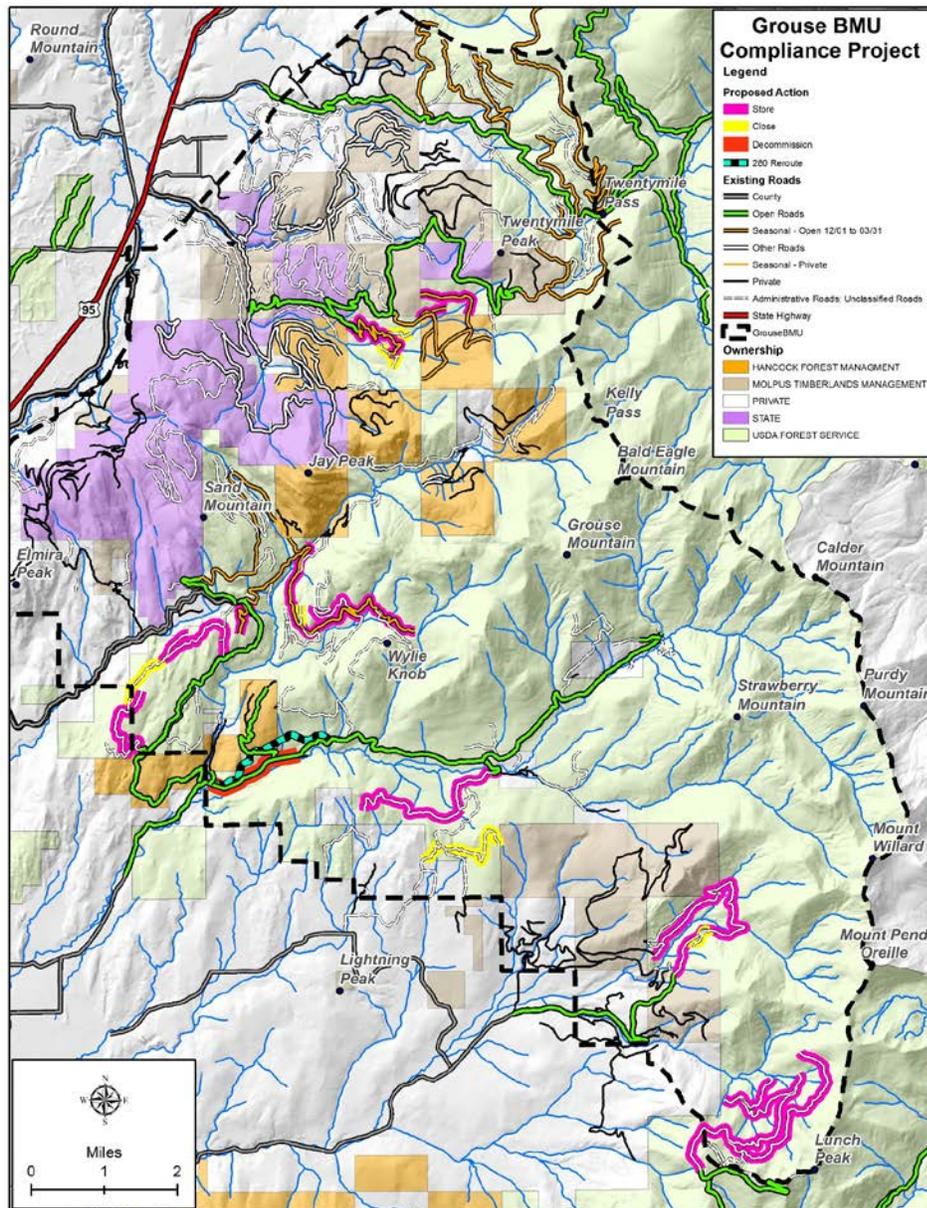
The proposed Project includes road storage and closure activities (Figure 2), and a single road relocation (Figure 3). The following project description is excerpted directly from the Assessment, to which we have added additional information received from the Forest.



**Figure 1. Grouse BMU Compliance Project boundary, northern Idaho. Map excerpted from the Assessment (USFS 2017, p. 27).**

The Forest will place approximately 28 miles of road into storage (Table 1). Of these, 7.9 miles of roads proposed for storage are currently restricted for public use and are open for public motor vehicle travel from December 1 through March 31 (during grizzly bear denning). The remaining 21.1 miles of roads proposed for storage are not open to public motor vehicle travel. Stored roads will no longer be drivable; they will be blocked with an earthen berm or a short section will be recontoured to match the original slope of the land. High-risk drainage structures will be removed and additional drainage, such as water bars, will be installed. Culverts will be removed with machinery or by using explosives. Stored roads will be stable, have little surface erosion, and no anticipated maintenance. Storage will reduce road maintenance costs and reduce the risk of roads failing and adding sediment to streams. They will remain part of the Forest's

transportation system and could be reopened in the future. However, these roads are being stored to meet requirements for grizzly bear core habitat, so they will remain stored for at least 10 years. Stored roads may be opened in the future for emergency purposes.



**Figure 2. Grouse BMU Compliance Project area (black hatch lines) with proposed actions (pink: road storage, yellow: road closure, red: road decommissioning, and teal/black: new Forest System Road 280). Map excerpted from the Assessment (USFS 2017, p. 28).**

**Table 1. Roads proposed for closure, including the existing condition. Excerpted from the Assessment (USFS 2017, Table 1, pp. 2-3).**

<b>Forest System Road</b>	<b>Length of Proposed Storage (miles)</b>	<b>Existing Condition</b>	<b>Proposed Action</b>	<b>Comments From Road Surveys</b>
215	3.8	Gated, but open seasonally to public motorized access from December 1 thru March 31.	The first 1.5 miles of the road would remain open seasonally to the public from December 1 thru March 31. The remaining miles would be stored and no public motorized access would be allowed.	Road is currently drivable.
215A	0.8	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is currently drivable.
2236	1	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Brush has been cleared, drivable.
2236A	1.9	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Brush has been cleared, drivable.
2625C	1	Gated, but open seasonally to public motorized access from December 1 thru March 31.	The first 0.3 miles of the road would remain open seasonally to the public from December 1 thru March 31. The remaining miles would be stored and no public motorized access would be allowed.	Road is brushed in, not drivable.
2636	4.1	Gated, not open to public motorized access	The road would be stored (the portion on Forest lands). No public motorized access would be allowed.	Road is brushed in, may be all-terrain vehicle (ATV)-drivable down the middle.
2656B	1.5	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, may be ATV-drivable down the middle.
2656B1	0.5	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, may be ATV-drivable down the middle.
2656C	1.7	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, may be ATV-drivable down the middle.

<b>Forest System Road</b>	<b>Length of Proposed Storage (miles)</b>	<b>Existing Condition</b>	<b>Proposed Action</b>	<b>Comments From Road Surveys</b>
2656E	0.8	Gated, but open seasonally to public motorized access from December 1 thru March 31.	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable
2686A	1.9	Gated, but open seasonally to public motorized access from December 1 thru March 31.	This road would be stored starting at the Forest boundary. No public motorized access would be allowed.	
2693A	0.4	Gated, but open seasonally to public motorized access from December 1 thru March 31.	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable.
2695	4.0	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable.
2742	1.8	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable.
2743	2.0	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable.
2743A	0.3	Gated, not open to public motorized access	This road would be stored. No public motorized access would be allowed.	Road is brushed in, not drivable.

In addition, approximately 3.1 miles of “undetermined” roads will be closed (Figure 3). Undetermined roads are roads that exist on the landscape but have not been categorized by the Forest on their motorized vehicle use map. Proposed work will remove any resource risks associated with these routes, and the road prism will be placed into an impassable state to discourage illegal use. Undetermined roads identified for closure are: 215UC, 2636UC, 22656BUA, 2656BUAA, 2686AUA, 2686AUB, 2686AUC, 2686AUD, and 729UV. In addition, 1.3 miles of an illegal ATV trail will be closed.

The proposed road storage and closure activities will be completed in three phases set to begin in 2018 (Figure 3). Depending on funding availability, each phase may take up to 2 years to implement, and there may be some overlap between phases. To summarize,

- During Phase 1, set to occur in 2018 and/or 2019, the Forest will store Forest Service Roads (FSRs) 2625C, 2686A, and 2693A, and close Roads 2686AUB, 2686AUD, 2686AUA, and 2686AUC in the northern portion of the BMU. In addition, the Forest will store FSRs 2236 and 2236A, close Roads 2236UA and 729UV, and remove the illegal ATV trail located in the west central portion of the BMU.
- During Phase 2, set to occur in 2019 and/or 2020, the Forest will store FSRs 215, 215A, 2656B, 2656B1, 2656C, and 2656E, and close Roads 215UC, 2656BUA, and 2656BUAA. Phase 2 will also occur in the west central portion of the BMU, northwest of the west central Phase 1 activities.
- During Phase 3, which will occur in 2020 and 2021, the Forest will store FSRs 2636, 2695, 2742, 2743, and 2743A, and will close Road 2636UC. Phase 3 will occur in the southern portion of the BMU. In order to reduce potential impacts to grizzly bears, Phase 3 activities will not begin until the storage of FSR 215 during Phase 2 is completed so that the storage of FSR 215 and Phase 3 will occur in separate bear years (April 1 – November 30). All road storage and closures will take place outside of the grizzly bear spring season (April 1 – June 15) and will be completed by 2021.

The Project also proposes to reroute a segment of the Grouse Creek Road, FSR 280 (Figure 4). This is considered a secondary action to the road storage and closures, as the relocation is not required to meet the standards for wheeled motorized vehicle access, and will occur after all road storage and closures are completed. The current section of FSR 280, approximately 1.4 miles in length, floods annually, making it unsafe to drive and expensive to maintain. Decommissioning the current section and rerouting FSR 280 to an upland location will make the road safe to drive, reduce annual maintenance costs, and help meet Forest Plan direction by reducing sediment in the Grouse Creek subwatershed.

The proposed reroute will begin just east of the North Fork Grouse Creek Bridge and the junction with FSR 4320. From this point, the route will climb northeast through wooded Forest Service-owned lands, intersect privately-managed lands, and then back onto Forest Service-managed lands before tying into the existing FSR 280 in the area of the Wylie Knob Trailhead parking area. Some additional length to the proposed route may be required if a switchback is needed to gain elevation more gradually. The 0.6 miles of FSR 280 from Wylie Creek Trailhead to the Grouse Falls Trailhead will remain to serve as motorized access from the new FSR 280 reroute to the Grouse Falls Trailhead. Following construction of the new FSR 280 segment, the existing segment of FSR 280 will be decommissioned; however, the eastern 0.3 miles of the

decommissioned road will be converted to trail to allow horse and non-motorized access through the meadow and down to the creek.

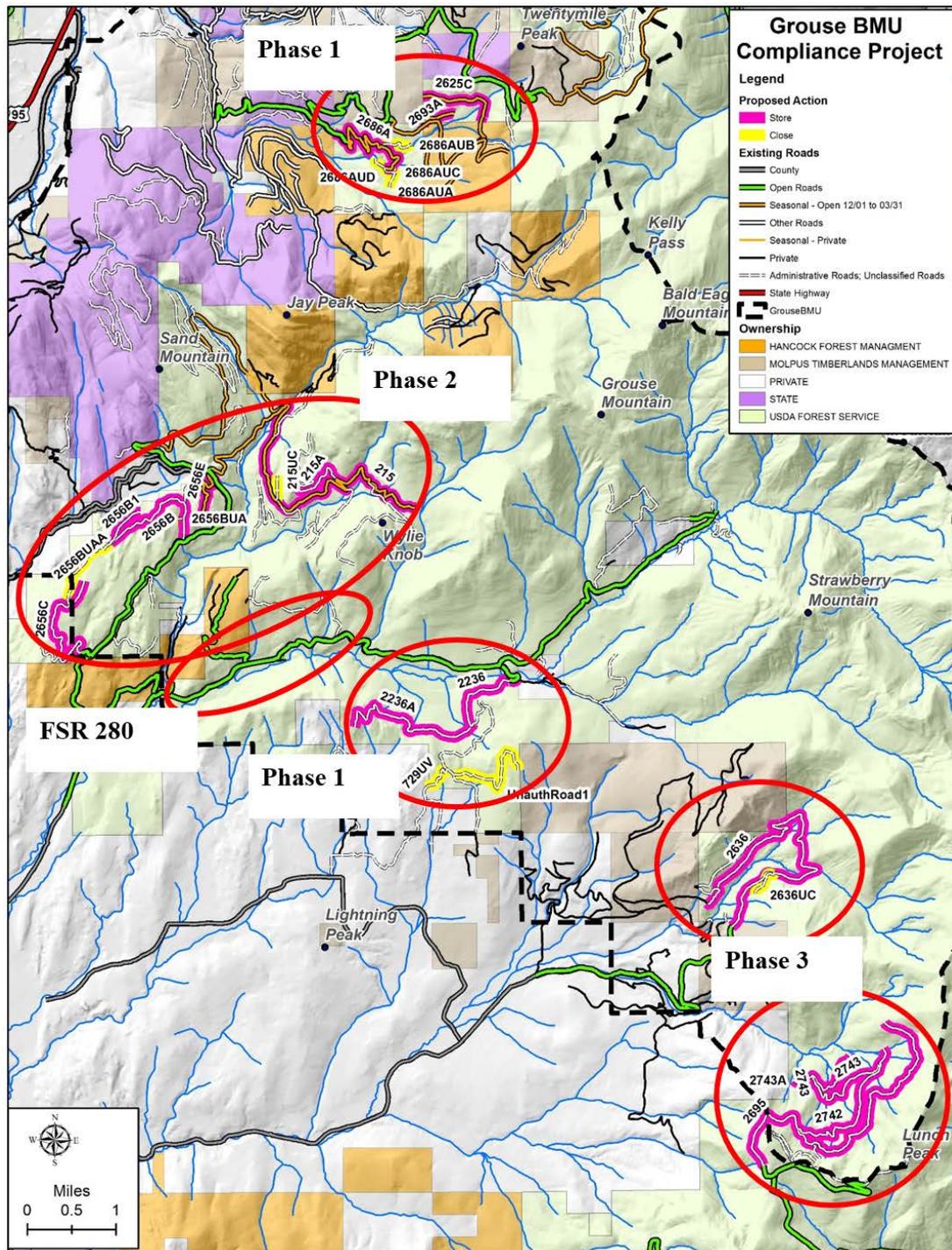
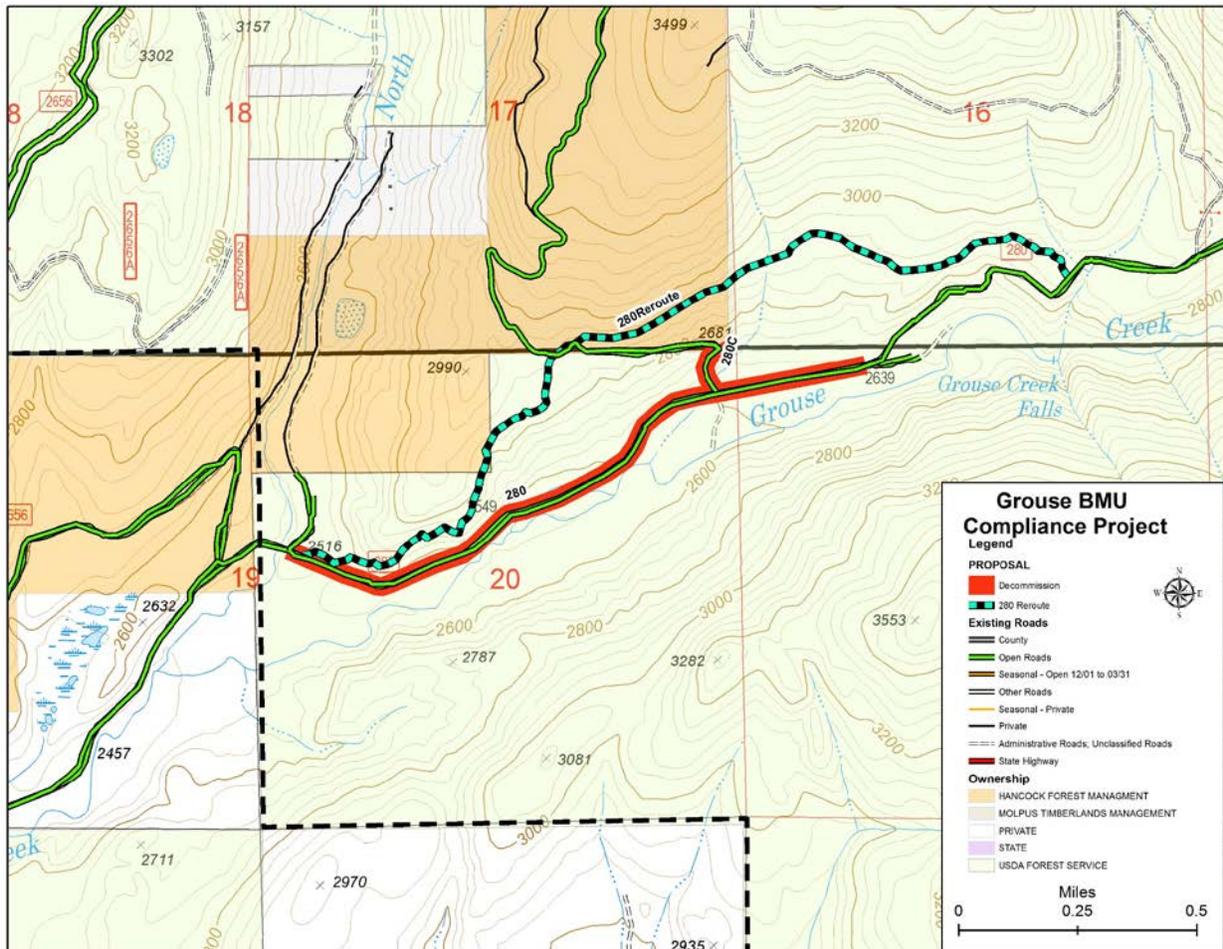


Figure 3. Road storage and closures will be completed in 3 phases followed by the FSR 280 relocation. Map excerpted from the Assessment (USFS 2017, p. 27) and amended to show with additional information.

Summary of the proposed Grouse Creek Road (FSR 280) reroute:

- Total miles of new road construction- 1.5
- Total miles of road reconstruction- 0.6
- Total miles of decommissioning- 1.4
- Total miles of decommissioning turned into trail- 0.3
- Total miles of retain and improve existing road- 0.6



**Figure 4. Proposed reroute of Forest Service Road 280 (teal and black line). The current segment of FSR 280 (red lines) will be decommissioned, converting the eastern 0.32 miles to trail, from the junction of FSR 280C to Road 2639, and leaving the remaining segment impassable. Map excerpted from the Assessment (USFS 2017, p. 30).**

The proposed FSR 280 reroute will require an agreement with Hancock Forest Management and the landowner, and will occur sometime within the next 10 years, by 2027. The reroute will begin after all road storage and closures are complete (in 2021) and will take approximately two years. All in-stream work on Grouse Creek will take place during the bull trout instream work window (July 15 – August 31), and all Project activities, with the exception of work along open roads, will take place outside of the grizzly bear spring season (April 1 – June 15).

## 2.1.3 Conservation Measures

The following conservation measures, as outlined in the Assessment (USFS 2017, p. 23), are included in the proposed action, and are designed to remove or reduce any potential conflicts with grizzly bear. These are non-discretionary, and are necessary to justify the determination of effects in the Assessment and subsequent coverage provided by this Opinion:

- No road storage, road decommission, or road building activities would take place between April 1 and June 15 to reduce potential of disturbance during the spring. Activities associated with this project can occur during this seasonal restriction time on roads that are “open” on the Forest’s Motorized Vehicle Use Map.
- Forest Service personnel, contractors and subcontractors will receive a copy of the Grizzly Bear Management and Protection Plan and the Idaho Panhandle National Forest Food Storage Order (See Appendix A of this Opinion). The National Forest System lands within the proposed action areas are covered by the Forest’s Food Storage Order. The order will be included in all contracts. Compliance with the provisions of the Forest’s Food Storage Order is mandatory.
- Contractors and subcontractors will not be permitted to hunt, transport hunters, discharge firearms, or transport big game animals with vehicles in any areas that are otherwise closed to motorized vehicles.

## 2.2 Analytical Framework for the Jeopardy Determination

### 2.2.1 Jeopardy Determination

In accordance with policy and regulation, the jeopardy analysis in this Opinion relies on four components:

1. The *Status of the Species*, which evaluates the grizzly bear rangewide condition, the factors responsible for that condition, and its survival and recovery needs.
2. The *Environmental Baseline*, which evaluates the condition of the grizzly bear in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the grizzly bear.
3. The *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the grizzly bear.
4. *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the grizzly bear.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the grizzly bear current status, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the grizzly bear in the wild.

Recovery units for the grizzly bear were established in the Service's Grizzly Bear Recovery Plan (Recovery Plan) (USFWS 1993, p.16). Pursuant to Service policy, when an action impairs or precludes the capacity of a recovery unit from providing both the survival and recovery function assigned to it, that action may represent jeopardy to the species. When using this type of analysis, the Biological Opinion describes how the action affects not only the recovery unit's capability, but the relationship of the recovery unit to both the survival and recovery of the listed species as a whole.

The jeopardy analysis in this Opinion places an emphasis on consideration of the range-wide survival and recovery needs of the grizzly bear and the role of the action area in the survival and recovery of the grizzly bear as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

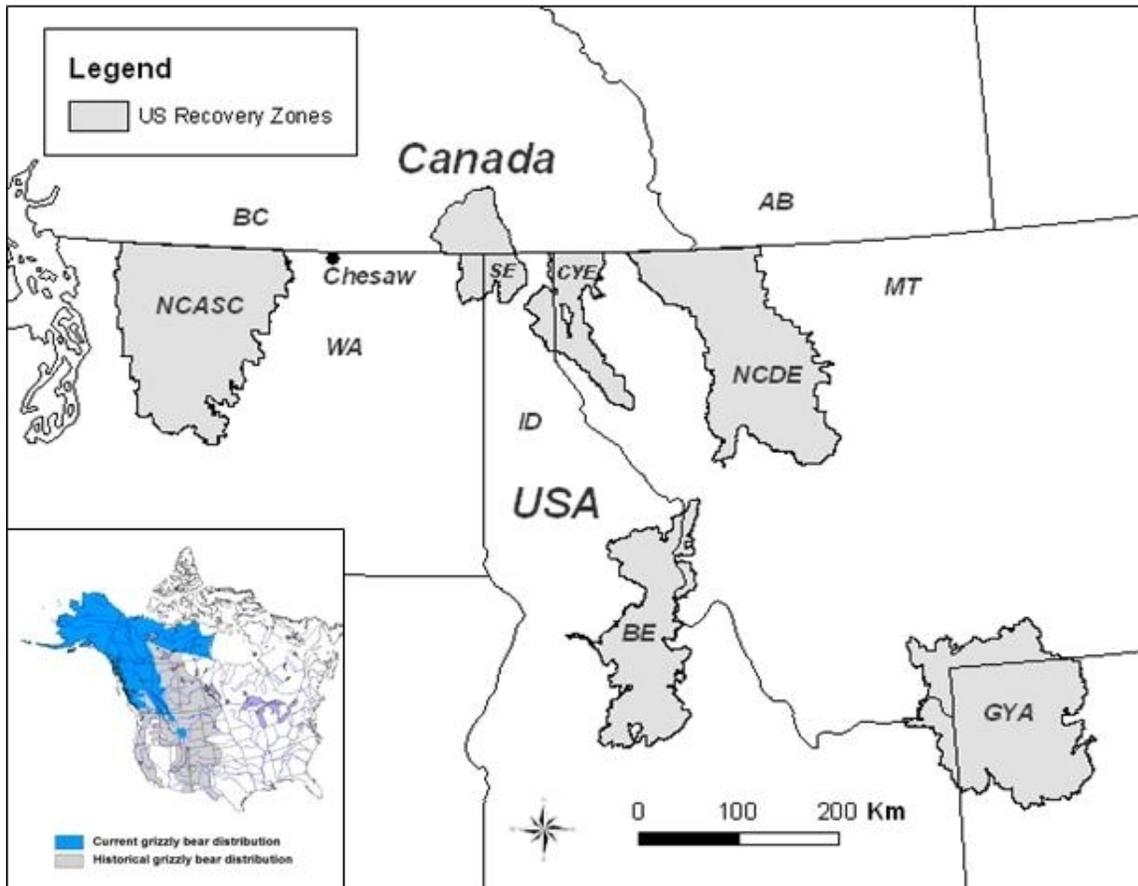
## **2.3 Status of the Species**

### **2.3.1 Grizzly Bear**

The description of the status of grizzly bears (including all subsections) is included in the Service's 2013 Biological Opinion on the Revised Land and Resource Management Plan for the Idaho Panhandle National Forests (USFWS 2013, pp. II-8 through II-43), and has been incorporated herein by reference. A brief summary is presented below.

On July 28, 1975, the grizzly bear was listed as threatened in the coterminous United States (40 FR 31734-31736). Since the original listing of the grizzly bear, the Service has completed four 5-year status reviews (46 FR 14652, February 27, 1981; 52 FR 25523, July 7, 1987; 56 FR 56882, November 6, 1991; and September 6, 2011). None of these reviews resulted in a change in the listing status of the grizzly bear. Since then, the Service has undertaken a number of actions to review the status of individual grizzly bear populations.

On March 13, 1990, the Service received a petition requesting the grizzly bear in the North Cascades Ecosystem (NCASC) be reclassified from threatened to endangered. We made a positive 90-day finding on the petition and initiated a status review of the NCASC grizzly bear population (55 FR 32103, August 7, 1990). On January 28, 1991, we received a petition requesting that we reclassify grizzly bear populations in the Cabinet-Yaak Ecosystem (CYE), Selkirk Ecosystem (SE), and the Northern Continental Divide Ecosystem (NCDE) from "threatened" to "endangered." Then, on February 4, 1991, we received a petition requesting that grizzly bear populations in the SE, CYE, Yellowstone Grizzly Bear Ecosystem (aka "Greater Yellowstone Area," or GYA) and NCDE recovery zones be reclassified from threatened to endangered. On April 20, 1992, we made a positive finding on these two petitions regarding the CYE and SE and initiated a status review for these two ecosystems (57 FR 14372). This same finding found that there was not substantial information presented about the GYA or NCDE recovery zones and that the request to uplist the North Cascades Ecosystem population was already being addressed through initiation of a status review in 1990 (see 55 FR 32103, August 7, 1990).



**Figure 5. Current and historic grizzly bear range and location of recovery ecosystems (in USFWS 2011, p. A-11). Inset map illustrates historic (grey shade) and current grizzly bear distribution (dark blue) (adapted from Proctor *et al.* 2012). GYA = Greater Yellowstone Area; NCDE = Northern Continental Divide Ecosystem; CYE = Cabinet-Yaak Ecosystem; SE = Selkirk Ecosystem; BE = Bitterroot Ecosystem; NCASC = North Cascades Ecosystem.**

On July 24, 1991, the Service released a 12-month finding that reclassification of the population from threatened to endangered was warranted but precluded by higher priority actions (56 FR 33892). On February 12, 1993, we published a 12-month finding that the grizzly bear population in the CYE was warranted for uplisting to endangered status while the population in the SE was not (58 FR 8250). This warranted status for the CYE, like the North Cascades Ecosystem population, was determined to be precluded by higher priority actions. On June 4, 1998, we reaffirmed this position, publishing a notice that the NCASC population and the CYE populations were warranted for endangered status, but precluded by higher priority actions (63 FR 30453). On May 17, 1999, after a Court remanded our finding regarding the SE population back to the Service, we released a 12-month finding that both the CYE and the SE populations were warranted for endangered status, but precluded by higher priority actions (64 FR 26725). Since then, the North Cascades Ecosystem, SE, and CYE populations have remained warranted for reclassification from threatened to endangered status but precluded by higher priority actions (64

FR 57534, October 25, 1999; 66 FR 54808, October 30, 2001; 67 FR 40657, June 13, 2002; 69 FR 24876, May 4, 2004; 70 FR 24870, May 11, 2005; 71 FR 53756, September 12, 2006; 72 FR 69034, December 6, 2007; 73 FR 75176, December 10, 2008; 74 FR 57804, November 9, 2009).

A Grizzly Bear Recovery Plan was approved on January 29, 1982, and a revised plan was completed on September 10, 1993 (USFWS 1993, p. ii). The Recovery Plan identifies six separate recovery zones: 1) the Yellowstone (GYA); 2) the Northern Continental Divide (NCDE); 3) the Cabinet-Yaak (CYE); 4) the Selkirk (SE); 5) the North Cascades (NCASC); and 6) the Bitterroot (BE) (Figure 5). These grizzly bear recovery zones are sometimes referred to as grizzly bear “ecosystems” and sometimes as “recovery units.” The Recovery Plan outlines a series of goals and objectives necessary to provide for conservation and recovery of the grizzly bear in selected areas of the coterminous United States. Although there are six grizzly bear recovery zones, only five are occupied; the BE does not have a grizzly bear population at this time. We have recent population data for the GYA, NCDE, CYE, and SE. The following population estimates include grizzly bears in the recovery zones and within a 10-mile radius of the recovery zone boundaries. There are about 1,500 grizzly bears in the lower 48 states, with approximately 700 in the GYA, 765 in the NCDE, 10 to 20 in the NCASC, 25-30 in the SE<sup>2</sup>, and 48-50 in the CYE.

The grizzly bear population within the GYA has continued to increase and expand its range, and currently the population is estimated at approximately 700 bears. All population recovery parameters have been achieved and a conservation strategy has been developed. On March 11, 2016, the Service proposed to designate the GYA grizzly bear population as a Distinct Population Segment (DPS) and remove it from the threatened species list. At that time, the Service announced the availability of the draft Grizzly Bear Recovery Plan Supplement: Revised Demographic Criteria and the draft 2016 Conservation Strategy, which was signed December 16, 2016. On September 7, 2016, the Service proposed to remove the GYA DPS from the Endangered Species List (81 FR 61658). On June 30, 2017, the Service designated the GYA population of grizzly bears as a DPS, and removed the GYA DPS from the List of Threatened and Endangered Wildlife, effective July 31, 2017 (82 FR 30502).

The grizzly bear population in the NCDE is currently estimated at 765 bears. Monitoring results show recovery criteria for several parameters in this ecosystem have been met, including: 1) numbers of females with cubs; 2) numbers of BMUs with family groups; 3) occupancy requirements for BMUs; and 4) total human-caused grizzly bear mortality. On December 12, 2017, the Service announced the draft Supplement to the Grizzly Bear Recovery Plan: Habitat-Based Recovery Criteria for the NCDE (82 FR 58444). The public comment period for this document closed on January 26, 2018. The document describes management and monitoring programs that would be enacted should the NCDE population be delisted; however, the document does not change the status of the population, and the NCDE grizzly bear population remains on the threatened species list.

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<sup>2</sup> Estimated population of the U.S. portion of the SE only. The only Recovery Unit that extends into Canada, the population of the entire SE is estimated at 83 bears.

As stated previously, the BE is not considered to be occupied by a population of grizzly bears at this time. On September 3, 2007, a black bear hunter shot a grizzly bear in the upper Kelly Creek drainage within the BE. Results of the DNA analysis conducted on the bear determined that this individual originated in the Selkirk Mountains of North Idaho and that this bear had not been captured before. Prior to this incident, grizzly bear occurrence had not been confirmed for more than 60 years in the BE. Subsequent extensive DNA and camera surveys in this area in 2008 and 2009 found no evidence of grizzly bears (Chris Servheen 2013, *in litt.*).

The NCASC is estimated to contain less than 20 grizzly bears, and their distribution is unknown due to lack of data. On August 29, 2011, the Service completed its 5-year status review to evaluate the current status of grizzly bears within the NCASC. The review recommended to uplist the NCASC from threatened to endangered, and the finding was warranted but precluded by higher priority actions (75 FR 66428, October 26, 2011). In 2013, the Service reaffirmed their conclusion that the NCASC warrants uplisting (78 FR 70104). The Service, in cooperation with the National Park Service, is in the process of completing an environmental impact statement evaluating potential recovery actions (80 FR 8894, February 19, 2015). The NCASC population is considered the most at-risk grizzly bear population in the United States.

The SE represents approximately 6 percent of the total occupied grizzly bear range remaining within the conterminous 48 states. The Selkirk grizzly bear population is contiguous with Canadian populations. This recovery zone is the only one that includes part of Canada because the habitat in the U.S. portion is not of sufficient size to support a minimum population size. Approximately 47 percent of the recovery zone lies within British Columbia, where land ownership is 65 percent crown (public) land and 35 percent is private. Proctor *et al.* (2012, p.31) compiled data from multiple sources and conducted DNA-based population surveys to estimate a population size of 83 grizzly bears in the SE, with 25-30 in the U.S. (W. Wakkinen 07/02/2013 pers. comm. as cited in USFWS 2013, p. II-26), based on expert opinion. Genetic monitoring in 2016 identified 30 individual grizzly bears within the U.S. portion of the SE (Kasworm *et al.* 2017a, p. 16). In the entire SE from 1980 to present, there have been 74 known and probable grizzly bear mortalities. Based on data from 1989 to present, grizzly bear mortality rates in the U.S. portion of the SE appear to have decreased but mortalities remain moderately high in the Canada portion (W. Wakkinen 07/02/2013 pers. comm. as cited in USFWS 2013, p. II-27). The effect of mortalities on population trends within the SE are difficult to discern, as population trend data are inconclusive. The recovery plan criteria for bear reproduction and mortality have not been met; however, the criteria for distribution was met for the 2011-2016 moving window analysis (Kasworm *et al.* 2017a, p. 9).

A recent mark-recapture study estimated the number of grizzly bears in the CYE at 48-50 individuals (includes full- and part-time residents) with an estimated 43 full-time residents (Kendall *et al.* 2016, pp. 314, 323). The CYE is bisected by the Kootenai River with grizzly bear habitat in the Cabinet Mountains to the south and the Yaak river drainage to the north. Grizzly bear migration between these two areas is unknown, but is thought to be minimal (Kasworm *et al.* 2013, p. 4). Spatial modeling predicted a greater number of bears in the Cabinet Mountains than in the Yaak River region. The grizzly bear subpopulation in the Cabinet Mountain region includes augmentation bears translocated from the Northern Continental Divide Ecosystem. Augmentation efforts are believed to be the primary reason for grizzly bear persistence in the Cabinet Mountains area (Kasworm *et al.* 2015, p. 27). Persistence in the Yaak River region appears to have more to do with proximity of the Yaak River bears to grizzly bear populations in

the Canadian Purcell Mountains than with habitat quality or mortality patterns (Proctor *et al.* 2012, p. 27).

Survival analysis and reproductive data is used to calculate a “rate of change” in the population, often referred to as the “population trend.” This calculation is essentially births - deaths = population change. The calculation only involves female adult and sub-adult survival plus all yearling and cub survivals. Approximately 90 percent of the data used in the following population trend calculations come from the Yaak portion of the CYE (Kasworm *et al.* 2015, p. 35).

In 2006, the CYE grizzly bear population reached its highest annual rate of decline (8.3 percent), but by 2009, the annual rate of decline had decreased to 3.7 percent and in 2014, the population had stabilized and was increasing at an annual rate of 1.4 percent (USFWS 2013, p. II-23, Kasworm *et al.* 2015, p. 35). The most recent modelled results showed populations are increasing at an annual rate of 1.6 percent (Kasworm *et al.* 2017b, p. 36).

Based on data from 1983 to 2016, total grizzly bear mortality rates in the CYE appear to have increased; however, the annual rate of female mortality has decreased (Kasworm *et al.* 2017b, p. 31). The 1993 Recovery Plan demographic criteria for females with cubs and distribution of females have not been met, while the demographic criteria pertaining to human-caused mortality and female, human-caused mortality have been met (USFWS 2013, pgs. II-24 through II-25). The stated goal in the 1993 Recovery Plan is for zero human-caused mortality; however, the plan also states, “In reality, this goal may not be realized because human bear conflicts are likely to occur at some level within the ecosystem.”

## **2.4 Environmental Baseline of the Action Area**

This section assesses the effects of past and ongoing human and natural factors that have led to the current status of the species, its habitat and ecosystem in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have already undergone section 7 consultations, and the impacts of state and private actions which are contemporaneous with this consultation.

### **2.4.1 Status of the Species in the Action Area**

The Grouse BMU is located in the Cabinet Mountain portion of the CYE. As stated previously, a recent mark-recapture study estimates the number of grizzly bears in the CYE at 48-50 individuals but, according to the BA, sightings of grizzly bears have been sporadic in the Grouse BMU since the late-1970s (USDA 2017, p. 20). Three sightings were reported in 2004, one sighting was reported in 2014 near Grouse Mountain, and one sighting was reported in 2015 near the confluence of Wylie and Grouse Creeks. There were no sightings reported in 2016. The low frequency of use by grizzly bears may be due to location and proximity to humans. Grouse BMU is located at the periphery of the Cabinet Mountains portion of the CYE, which itself has a relatively low grizzly bear density in relation to other grizzly bear ecosystems, and portions of the region are used heavily during snow-free seasons for firewood gathering, hunting, and recreation.

## 2.4.2 Factors Affecting the Species in the Action Area

The factors affecting grizzly bears in the action area are identical to those described in the Service's 2013 Biological Opinion on the Revised Land and Resource Management Plan for the Idaho Panhandle National Forests (USFWS 2013, pp. II-28 through II-43). These factors are described in greater detail in the referenced document, but include habitat loss, human-caused mortality, small population size, fragmentation and genetic isolation, climate change, and wheeled motorized access management (also influences human-caused mortality). The Idaho Panhandle National Forests' 2015 Revised Forest Plan requires implementation of the 2011 Forest Plan Amendments for Motorized Access Management within the SE and CYE Grizzly Bear Recovery Zones on the Kootenai, Idaho Panhandle, and Lolo National Forests (Access Amendment [USFS 2011, entire]). The Access Amendment established management standards regulating the amount of open motorized route density (OMRD) and total motorized route density (TMRD), and grizzly bear core habitat (Core)<sup>3</sup> for each BMU in the CYE based on previous research (Wakkinen and Kasworm 1997 *in* USFWS 2011, p. A57). While OMRD refers to the density of roads that are open to public use for all or part of the bear year, TMRD refers to the density of open roads in addition to restricted roads. Restricted roads are closed to public use and administrative use is limited to a certain number of trips per road during each season of the bear year, not to exceed 60 total trips per bear year (USFWS 2011, p. 15). This restriction reduces or eliminates potential displacement of grizzly bears (Kasworm, W., *in litt.* 1999). If Forest personnel exceed their number of trip per season on a road, that road is considered an "open" road, as displacement may occur. The 2011 Access Amendment recognized that the Forests would be unable to meet the established standards for all BMUs immediately, so incremental approach was implemented where 33 percent of deficient BMUs would meet their established standards within 3 years (2014), 66 percent of deficient BMUs would meet their established standards within 5 years (2016), and 100 percent of deficient BMUs would meet their established standards within 8 years (2019). Currently, the IPNF has not yet achieved the established standards for the Grouse BMU. This Project will allow the IPNF to achieve the established standards for the Grouse BMU for TMRD and Core by 2021, and to meet the established standard for OMRD by 2027.

In addition, the Forest has begun implementation on the Twentymile Creek project (Service reference number 01EIFW00-2014-F-0306), a 1,338-acre timber management action occurring in the Boulder and Grouse BMUs that includes timber harvest, road storage and decommissioning, precommercial thinning, and relocation of a historic lookout/rental. A large portion of the project area is located within the northeastern portion of the Grouse BMU. Although the project will result in a net reduction of 2.1 percent TMRD and a 0.5 percent (338-acre) gain in Core within the Grouse BMU, logging operations have raised OMRD by 1.0 percent, and is expected to continue through 2018. Storage of log haul roads in 2020 and 2021 is

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<sup>3</sup> The Interagency Grizzly Bear Committee taskforce defines "core areas" as those areas with no motorized access (during the non-denning period) or heavily used foot/livestock trails, providing some level of secure habitat for grizzly bears (USFWS 2011, p. A54). Core areas provide grizzly bears with use areas relatively free from humans and human-associated activities.

expected to increase OMRD by up to 0.9 percent. The Twentymile Creek project will be completed by 2021.

## **2.5 Effects of the Proposed Action**

Effects of the action consider the direct and indirect effects of an action on the listed species and/or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action. These effects are considered along with the environmental baseline and the predicted cumulative effects to determine the overall effects to the species. Direct effects are defined as those that result from the proposed action and directly or immediately impact the species or its habitat. Indirect effects are those that are caused by, or will result from, the proposed action and are later in time, but still reasonably certain to occur. An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation.

### **2.5.1 Direct and Indirect Effects of the Proposed Action**

The Project will affect grizzly bears through 1) effects from road storage and closure activities; 2) effects from the FSR 280 reroute, which involves road construction/reconstruction, improvements, and decommissioning; and 3) modifications to motorized access management. The Project includes conservation measures described in the Assessment (USFS 2017, p. 24; Appendix A, pp. 35-36) that will minimize adverse effects to grizzly bear, and the following analysis assumes those measures will be implemented. This Opinion analyzes the likelihood and magnitude of potential effects while taking into consideration these measures.

#### *Road Storage and Closure*

In most cases, road storage and closures will be accomplished through mechanized means (i.e. heavy equipment) that will be a source of disturbance to bears. We expect localized disturbance impacts around targeted road segments lasting anywhere from a few days to weeks, depending on the length of the road segment being stored or closed. Increased human activity and Project-related noise may drive grizzly bears out of Project areas, or may result in an increased risk of human conflicts that may increase the risk of grizzly bear mortality (USFWS 2011, p. A51). Response will vary by individual bear, where some bears may remain in the vicinity and only avoid areas when humans and machines are present, and other bears may avoid the area completely for the duration of the Project (displacement). As with any source of disturbance, many factors can influence grizzly bear reaction, including distance from the noise, noise level, topography, vegetative cover where the bear is located, and previous exposure to human noises. Displacement may affect grizzly bears by forcing them from preferred habitats and may result in increased stress levels and/or energetic demands (USFWS 2011, p. A72). Displacement may be of particular concern for female grizzly bears during reproduction by increasing stress or decreasing nutritional status, which may reduce reproductive fitness (USFWS 2011, pp. A81-A82). In addition, long-term dislocation of a female grizzly bear from a portion of her home range may result in abandonment of that area by grizzly bears in general because cubs have limited potential to learn to use the area (USFWS 2011, p. A52).

To minimize effects stemming from road storage and closure activities, the Assessment contains conservation measures designed to minimize the likelihood of grizzly bear-human interactions by removing human attractants and implementing human safety provisions (USFS 2017, p. 24; Attachment A, p. 36). In addition, no storage or closure activities will take place between April 1 and June 15 (i.e., grizzly bear spring season), which is considered the most sensitive time period for grizzly bears, especially for females with cubs of the year. Alternative habitat is available nearby in the form of large contiguous blocks of core habitat to the northeast (approximately 18 square miles) and southeast (over 300 square miles).

Short-term displacement to alternative areas may increase the likelihood of encounters with other bears. However, since grizzly bear densities in the CYE are not very high, with an estimated 48-50 bears over 2,620 square miles, or one bear for every 53 square miles, there is a relatively low risk of a displaced bear having a harmful encounter with other grizzly bears. Although 53 square miles is considered a small home range, even for a female grizzly, grizzly bears do not defend territories, often sharing home ranges with other bears (USFWS 2011, p. A2). The exception to this would be during mating season. Given this, we expect that even if a displaced grizzly bear were to enter an area occupied by another grizzly bear, they would be able to avoid each other given their low overall density on the landscape. Because of the short-term duration of the disturbances and immediate availability of alternative habitat, mechanized road storage and closure activities are not expected to pose a significant threat to the breeding, feeding, or sheltering behavior of grizzly bears. Therefore, we expect the effects to grizzly bears to be insignificant.

In the few cases requiring significant heavy brush removal to move machinery into locations where only one to three shallow culverts require removal, the Forest will use explosives. We expect explosives will be used infrequently on road segments. No more than three explosives, but likely only one explosive, will be used on any given road segment (Hennings, K., *in litt.* 2018). The use of explosives and the resulting noise represents another potential source of disturbance to grizzly bears, but of a higher intensity and shorter duration than mechanized means. Explosive use does not require as much mechanized preparation work (e.g., no opening of impassable roads), and the removal of each culvert will be completed in a shorter amount of time. Once at the site, a drill may be used to auger holes for the explosives, but the potential for disturbance to grizzly bears is much less than with heavy equipment. Although the blast itself represents a disturbance to wildlife, it is a short-term noise disturbance. McLellan and Shackleton (1989, p. 375) found no significant difference in the habitat use of grizzly bears in an area of seismic exploration that included the use of explosives when compared to the same area before seismic activity. We expect the use of explosives to have a range of impacts on grizzly bears spanning from no discernible reaction to the bear being temporarily displaced from the area. As previously described, alternative habitat is available to the northeast and southeast. Because the use of explosives will be limited to no more than three explosions on any given road segment, resulting in localized, short-term noise disturbances, and because alternative habitat is readily available, we expect effects to grizzly bears from the use of explosives to be insignificant.

#### *Relocation of FSR 280*

Increased human activity and Project-related noise during the FSR 280 reroute (i.e., decommissioning and improving one segment of open road and constructing/ reconstructing a new road) will be a source of disturbance to grizzly bears. Potential effects to grizzly bears from

increased human use and noise are described in the *Road Storage and Closure* section above. The Project will minimize the likelihood of grizzly bear-human interactions by removing human attractants and implementing human safety provisions (USFS 2017, p. 24; Attachment A, p. 36). In addition, no road construction/ reconstruction or road decommissioning will occur between April 1 and June 15 (i.e., grizzly bear spring season), which is considered the most sensitive time period for grizzly bears, especially for females with cubs of the year. Roadwork may occur during the spring season on roads that are considered “open” on the Forest motorized vehicle use map (i.e., roads open to year-round public use); however, we do not expect bears to be in close proximity to open roads because grizzly bears show strong avoidance behavior to open roads (USFWS 2011, p. A51). Grizzly bears may be temporarily displaced from the relocation area, particularly from the upland area associated with the new road construction. However, this area does not contain suitable grizzly bear forage or denning habitat (Hennings, K., *in litt.* 2017), and there is alternative habitat available nearby to the east and south. The new road may reduce connectivity to bears seeking access to riparian areas adjacent to Grouse Creek, but access to Grouse Creek is already restricted by the existing open FSR 280 and, because of the poor habitat quality (lack of forage resources), is unlikely to attract to bears. Decommissioning the segment of FSR 280 adjacent to Grouse Creek will result in improved riparian health that would provide habitat of greater value to grizzly bears over time. Because of these factors, we expect the short-term effects to grizzly bears from the road reroute will not cause significant disruption in the feeding, breeding, and sheltering behavior of grizzly bears; therefore, effects to grizzly bears will be insignificant in the short-term and may be beneficial in the long-term.

#### *Motorized Access Management*

As described in the Service’s 2013 Biological Opinion on the Revised Forest Plan for the Idaho Panhandle National Forests (USFWS 2013, p. II-7), the Idaho Panhandle National Forests’ Forest Plan requires implementation of the 2011 Access Amendment (USFS 2011, entire). As previously described, the Access Amendment established standards for OMRD, TMRD, and Core for each BMU in the CYE based on previous research. The Service completed formal consultation on the Access Amendment (hereafter referred to as Biological Opinion on the Access Amendment) (USFWS 2011, entire) and found that its implementation would not jeopardize the continued existence of the grizzly bear. However, the Biological Opinion on the Access Amendment makes it clear that, as long as BMUs do not meet the research standards for OMRD, TMRD, and Core, there will be adverse effects to female grizzlies at the BMU scale. In an effort to relieve the adverse effects in BMUs that meet their established standards but do not meet the research standards, the Access Amendment established standards for other BMUs within the CYE that exceed the research standards (higher Core and/or lower OMRD or TMRD). The contents, data, analyses, and conclusions of the Biological Opinion on the Access Amendment (USFWS 2011, entire) are incorporated in this analysis in their entirety.

The revised Forest Plan’s established standards for access management in the Grouse BMU are 59/55/37 for OMRD, TMRD, and Core, respectively. This means the Grouse BMU should ensure 1) no more than 59 percent of the BMU has OMRD greater than 1 mile per square mile, 2) no more than 55 percent of the BMU has TMRD greater than 2 miles per square mile, and 3) at least 37 percent of the BMU contains Core. This 59/55/37 standard for road densities and core habitat were set below the “33/26/55” (OMRD/TMRD/Core) Wakkinen and Kasworm research results (1997, *in* USFWS 2011, p. A57) in acknowledgement of the intermix of public and private land ownership. With only 54 percent Federal land ownership, the Grouse BMU is not

capable of meeting the 33/26/55 Wakkinen and Kasworm research standards. The result is a level of core habitat and road densities that may not be capable of providing the full suite of home range needs for the average adult female grizzly bear. Therefore, adverse effects to grizzly bears will be a persistent long-term condition for the Grouse BMU (USFS 2017, p. 19). As described above, adverse effects resulting from the inability of Grouse BMU to meet the research standards are relieved by established standards in other BMUs of the CYE that exceed the research standards. For example, the North Lightning BMU, adjacent to the Grouse BMU, has established standards for Core and TMRD exceed the research standards.

As previously discussed in the *Factors Affecting the Species in the Action Area* section of this Opinion, the Grouse BMU currently does not meet its established standards of 59/55/37 for OMRD, TMRD, and Core, respectively. The existing condition is 60.4 percent, 59.2 percent, and 31.7 percent<sup>4</sup> for OMRD, TMRD, and Core, respectively (USFS 2017, p. 20). This condition includes the Forest's discovery of unauthorized use of FSR 2236; the discovery of an illegal ATV trail connected to FSR 2236; and increases in OMRD and TMRD and a reduction in Core resulting from the previously described Twentymile Creek project (Twentymile). In order to meet the established standards, the Forest will place approximately 28.0 miles of restricted roads into long-term storage (including FSR 2236), close approximately 3.1 miles of undetermined roads, and close the 1.3-mile illegal ATV trail. Storage is designed to render road segments undrivable and hydrologically inert by installing waterbars along the full length of affected roads, removing drainage structures (culverts), and fully recontouring specific sections of the road. While roads will be inaccessible during the "stored" period, they will remain on the system if needed for emergency purposes, as defined by Endangered Species Act regulations [50 CFR 402.05]. Road closure involves removing resource risks and making the road impassable. Roads closed or placed into long-term storage (a minimum of 10 years) no longer take away from core habitat or contribute to road densities for purposes of grizzly bear habitat assessment per direction from the Interagency Grizzly Bear Committee (IGBC 1986, entire; IGBC 1998, entire) and Biological Opinion on the Access Amendment (USFWS 2011, p. 12). In addition to the road storage and closures, the Forest also proposes to relocate 1.4 miles of FSR 280 from its current location adjacent to Grouse Creek to an upland location. Although not necessary to meet compliance with the Access Amendment, the relocation will reduce resource risks along Grouse Creek.

The condition of OMRD will worsen in the Grouse BMU during Project implementation. As previously described, the 2017 OMRD condition is 60.4 percent, which includes the 1.0 percent increase due to logging effects associated with Twentymile and the 0.5 percent increase from the unauthorized use of the restricted FSR 2236 and the associated illegal ATV trail. Phase 1 (2018-2019) will be completed within the administrative trip allowance, and will not change OMRD. During Phase 2 (2019-2020), trip exceedances on FSR 215 will raise OMRD by 2.15 percent in 2019. However, logging from Twentymile will be completed by this time. Assuming the unauthorized use of FSR 2236 has been addressed and the illegal ATV trail removed, the 2019

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<sup>4</sup> Rounding of numbers can often mask the true condition of BMUs so, while the condition of Grouse BMU is reported as whole numbers for administrative purposes, we will report fractions (as provided by the Forest) for this analysis.

OMRD condition within Grouse BMU will be 61.05 percent (Table 2). During Phase 3 (2020-2021), OMRD will rise by 2.76 percent. Road storage associated with Twentymile will raise OMRD by an additional 0.9 percent, resulting in a 2020-2021 OMRD condition to 62.56 percent. To limit additive effects to grizzly bears from OMRD increases, Phase 3 will not be implemented in the same bear year as the FSR 215 storage. Following the completion of Phase 3, the construction of the new segment of FSR 280 will raise OMRD by 0.3 percent resulting from the construction of the new FSR 280 segment prior to decommissioning the existing segment. The Assessment does not specify the duration of which both segments will be open, but the entire FSR 280 relocation will be completed within 2 years sometime between 2022 and 2027. The OMRD condition during the road relocation will be 59.2 percent, reflecting the completion of Phases 1 through 3, as well as the completion of Twentymile.

**Table 2. Percent change in the condition of Open Motorized Route Density due to the Twentymile Creek Project currently underway, during road storage and closure activities, and during the relocation of Forest Service Road (FSR) 280. The standard for OMRD in Grouse BMU is less than or equal to 59 percent.**

Actions:	2017	2018	2019	2020	2021	2022-2027 (≤ 2 years)
Twentymile Creek <sup>1</sup>	1.0	1.0		0.9	0.9	
Phase 1 (2018-2019)		0	0			
Phase 2 (2019-2020)			2.15			
Phase 3 (2020-2021)				2.76	2.76	
FSR 280 Relocation						0.3
<b>OMRD Condition</b>	<b>60.4</b>	<b>60.4</b>	<b>61.05</b>	<b>62.56<sup>2</sup></b>	<b>62.56</b>	<b>59.2</b>

<sup>1</sup> Consultation for the Twentymile Creek project was completed in 2014. Associated OMRD effects are included as they contribute to the baseline condition of the Grouse BMU.

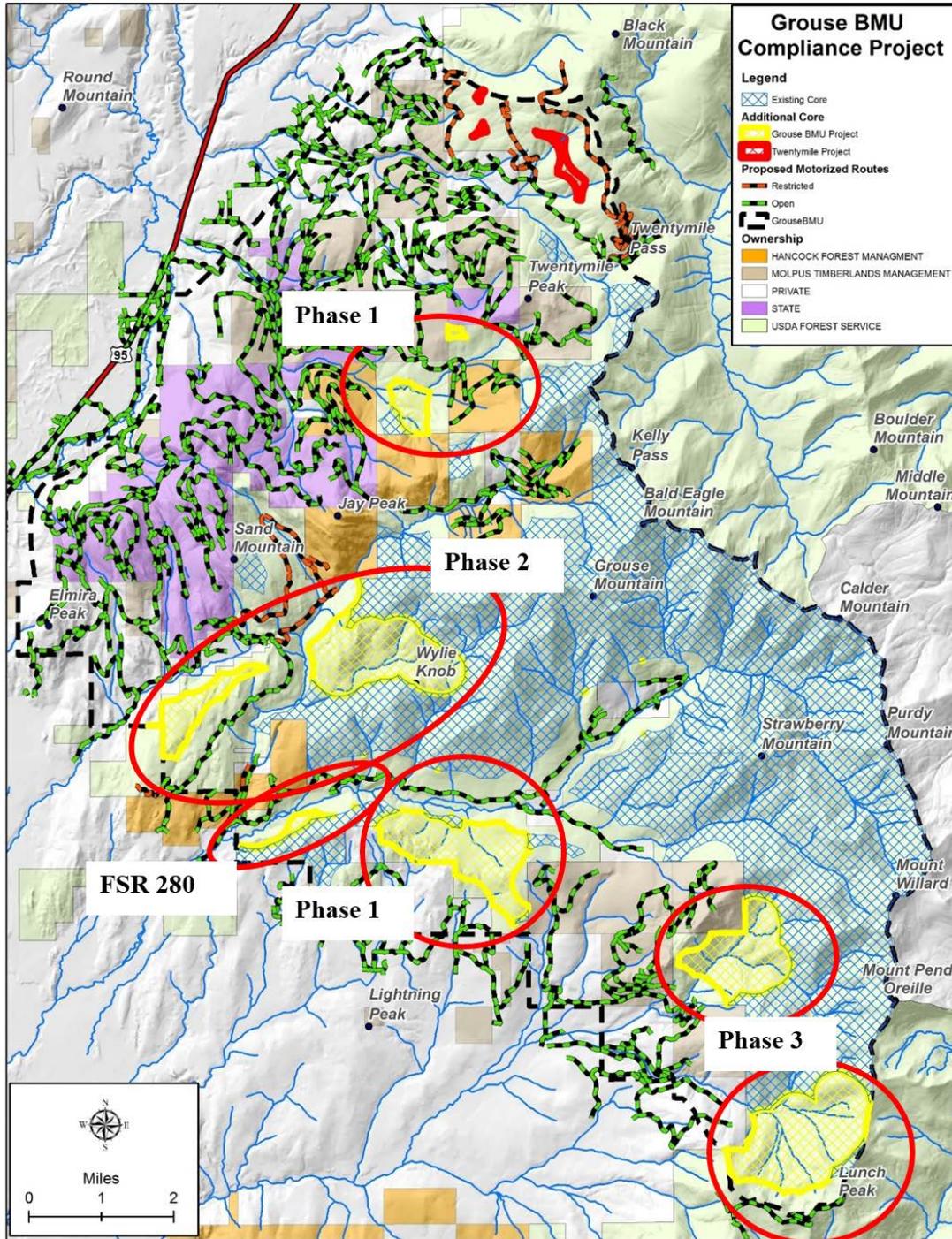
<sup>2</sup> Phase 2 may also occur during 2020, but will be completed before Phase 3 begins so the change in OMRD relative to Phases 2 and 3 will not be additive.

Increases in OMRD are not expressly prohibited within the Biological Opinion for the Access Amendment; however, as previously discussed, the direction makes it clear that, as long as conditions exceed the 33/26/55 OMRD/TMRD/Core research standards, there will be adverse effects to female grizzlies. Upon achieving the established standards, Grouse BMU will remain below the research standards; therefore, grizzly bears will continue to be adversely affected through disturbance/displacement resulting from high road densities. Project activities will exacerbate this situation, and we expect any increase in OMRD will adversely affect grizzly bears. To minimize effects to grizzly bears, all roads will remain restricted to public use, reducing the potential for human conflicts. Because of this, we expect effects to grizzly bears will be in the form of displacement rather than direct mortality that is associated with roads that are open to the public. Grizzly bears may experience displacement effects but, as described above, Project activities will occur on the western side of a large, mostly unroaded, block of core

habitat, leaving ample displacement habitat immediately available to the east. In addition, the phased approach assures that Project activities resulting in adverse effects in one geographic area (i.e., Phase 2 in the central portion) of the BMU are relieved before implementing activities that result in adverse effects in another geographic area (i.e., Phase 3 in the southern portion). In 2020 and 2021, when OMRD is raised in the northern portion of the BMU (due to Twentymile) and in the southern portion of the BMU (due to Phase 3), the Phase 1 and Phase 2 road storage and closures will have been completed, increasing the amount of core habitat available in the central portion of the BMU (Figure 6). These efforts will maximize the amount of habitat available for grizzly bears to respond to displacement effects. However, grizzly bears may not immediately realize these gains, and bears may continue to avoid these areas until such time that they come to realize that an additional portion of the landscape has become secure from human use and presence.

Road storage and closures, to be completed by 2021, will decrease TMRD by 7.7 percent, bringing the condition to 51.5 percent, which meets the established standard of “less than or equal to 55 percent” (Table 3). However, the FSR 280 relocation will raise TMRD by 0.5 percent for up to 2 years sometime between 2022 and 2027. Similar to OMRD, increases in TMRD are not expressly prohibited within the Biological Opinion for the Access Amendment. However, because TMRD will remain above the research standards, the slight increase in TMRD associated with the road relocation will temporarily exacerbate the adverse effects to grizzly bears that are a persistent condition within the BMU. We expect the adverse effects to grizzly bears to be in the form of temporary displacement rather than the direct mortality because, as described above, roads will be restricted and the increase in TMRD will not result in increased public use or an increased risk of conflict between grizzly bears and the public.

Road storage and closures will increase core habitat by 4,823 acres (7.2 percent), bringing the Core condition to 38.9 percent by 2021 (Table 3), which meets the established standard of “greater than or equal to 37 percent.” During the FSR 280 relocation, road construction and reconstruction will temporarily reduce the amount of core habitat by 69 acres, reducing Core at the BMU scale by 0.1 percent. As required by Design Element B3 of the Biological Opinion on the Access Amendment (USFWS 2011, p. 14), prior to any road construction or reconstruction, the Forest will offset the anticipated reduction in core habitat through the previously described road storage and closure activities. The Biological Opinion on the Access Amendment also requires that any core habitat lost during project implementation be replaced “in-kind” prior to any loss with habitat of equal or greater value to grizzly bears. As previously described, the habitat lost during Project implementation is not considered important grizzly bear habitat. The area does not contain suitable forage or denning habitat, nor does it provide connectivity between important resource areas. Road storage and closure will add several small, isolated core blocks in addition to a large, 3,216-acre block adjacent to the largest core block within the BMU. Given the small size (69 acres) and poor quality of the lost habitat, the replacement habitat will at least be of equal value, and may be of greater value, than the habitat lost.



**Figure 6. Core gains (yellow) due to road storage and closure, and the FSR 280 road relocation. Blue hatch symbolizes existing Core. Map was modified from USFS 2017, p. 35.**

Similar to OMRD/TMRD effects, the loss of Core will temporarily exacerbate the adverse effects that grizzly bears within the Grouse BMU may already be experiencing due to a lack of secure core habitat. Grizzly bears rely on familiar habitats free of human-related disturbance to provide secure cover, as well as areas that support foraging, breeding, and sheltering (USFWS 2011, p. A-63). Grouse BMU is not capable of providing the amount of core necessary to support the full suite of home range needs of an average grizzly bear, and adverse effects are a persistent condition. Therefore, the additional Core loss will temporarily (less than two years) contribute to adverse effects to grizzly bears.

**Table 3. Changes to the condition of the Grouse BMU prior to and during Project implementation. All road storage and closures will be completed prior to commencing the FSR 280 relocation activities.**

<b>Grouse BMU</b>	<b>Forest Plan Standards<sup>1</sup></b>	<b>2017 Condition</b>	<b>Condition Following Road Storage and Closures (by 2020)</b>	<b>Condition During the FSR 280 Relocation (2-year duration)<sup>2</sup></b>	<b>Condition at Project Completion (by 2027)</b>
<b>TMRD</b>	≤ 55	59.2	51.5	52.0	51.5
<b>Core</b>	≥ 37	31.7	38.9	38.8	38.9

<sup>1</sup>BMU conditions are reported in whole numbers, which can mask the true condition of a BMU.

This analysis uses values rounded to the nearest 0.1 percent.

<sup>2</sup>The FSR 280 road relocation action will begin sometime after 2020.

## 2.5.2 Effects of Interrelated or Interdependent Actions

The Service knows of no interrelated or interdependent effects associated with the Project.

## 2.6 Cumulative Effects

The implementing regulations for section 7 define cumulative effects to include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this Opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Ongoing land management activities are reasonably certain to occur on lands within the Grouse BMU. For example, the action area contains private land holdings that are managed for timber harvest, which could be utilized by grizzly bears. However, the Service is not aware of any specific non-Federal projects proposed within the action area that would cumulatively affect grizzly bear.

## 2.7 Conclusion

Project implementation will increase Core and decrease TMRD in the Grouse BMU, at which time these criteria will meet the motorized access management standards established in the Access Amendment. Road storage and closures are an effective means of reducing road densities and increasing core habitat; however, the storage and closure activities will temporarily raise OMRD along the western periphery of the Grouse BMU during implementation. Currently, OMRD (at 60.4 percent) does not meet the established standard (less than or equal to 59 percent), a condition that will be exacerbated during Project implementation. We expect the effect to grizzly bears from these temporary increases in OMRD to be in the form of displacement rather than direct mortality because, with the exception of the open FSR 280, all roads will remain closed to public use and will be used exclusively for the completion of Project activities. By implementing the Project in phases across the different geographic areas and over 6 years, the Forest will minimize the effects to grizzly bears during any two-year period. Upon completion of road storage and closures (by 2021), the Grouse BMU will have achieved the standards established in the Access Amendment for all criteria for a brief period before the road relocation activities begin.

Relocating FSR 280 will reduce resource risks along Grouse Creek; however, OMRD and TMRD will increase by 0.3 and 0.5 percent, respectively, and core will decrease by 0.1 percent during this time. Core and TMRD will remain within the standards established for these criteria; however, OMRD will temporarily (less than 2 years) fall out of compliance by 0.2 percent. We expect these modifications to core road densities and core habitat to exacerbate the existing conditions within the BMU that may be adversely affecting grizzly bears; however, we expect effects will be in the form of displacement rather than direct mortality. Upon completion of the road relocation, by no later than 2027, the Grouse BMU will meet the standards established in the Access Amendment for all criteria.

Effects to grizzly bears from Project activities are minimized through the phased design, and Project activities would not occur during the grizzly bear spring season (April 15 to June 15), a sensitive time for grizzly bears, especially females with cubs of the year. The proposed activities will take place outside of the non-denning season, and have the potential to displace grizzly bears; however, displacement habitat is available in the form of a large continuous block of core habitat in the eastern portion of the BMU and, with the completion of each Project phase, additional core habitat will become available. The Project is expected to result in long-term (post-implementation) improvements to grizzly bear habitat by increasing core habitat by 7.2 percent and decreasing TMRD by 7.7 percent within the Grouse BMU.

After reviewing the current status of the grizzly bear, the environmental baseline, and the effects of the proposed Grouse BMU Compliance Project, it is the Service's biological opinion that the proposed Project: (1) may have adverse effects on grizzly bears within the Grouse BMU and, therefore, may have adverse effects on some grizzly bears in the CYE; (2) would have long-term beneficial effects to grizzly bears in the CYE; and (3) would not preclude recovery of the grizzly bear in the CYE. The proposed action will occur outside of the SE, NCDE, NCE, and GYE; therefore, the proposed Project will have no direct effects upon the status of grizzly bears in those ecosystems. Because the proposed Project will not preclude recovery and survival in any Recovery Zone, it is the Service's opinion that the proposed Grouse BMU Compliance Project will not jeopardize the continued existence of the listed grizzly bear population in the

conterminous United States. No critical habitat has been designated for this species; therefore, none will be affected.

We base our conclusion on the following:

1. The Grouse BMU is a degraded BMU that currently does not meet the Access Amendment established standards. The Project will improve habitat for grizzly bears by reducing road densities and adding secure habitat, and will bring the Grouse BMU into compliance by achieving the Access Amendment established standards.
2. Although precise grizzly bear use within the Grouse BMU is unknown, few grizzly bears have been documented within the BMU; 3 bears in 2004, 1 bear in 2014, 1 bear in 2015, and no bears in 2016.
3. The Grouse BMU is located on the western periphery of the Cabinet-Yaak Recovery Zone, which contains a relatively low density (~43 full-time residents) of grizzly bears compared to other recovery zones. Project activities that may cause adverse effects to grizzly bears are located on the western periphery of the Grouse BMU.
4. Although we expect some level of displacement may occur during Project activities, there is alternative dispersal habitat available nearby that includes large blocks of Core habitat.
5. Grizzly bears occur within the CYE in low densities, so the likelihood of dispersed grizzly bears encountering other bears is low. Grizzly bears will likely avoid each other when in proximity.
6. The Project contains a number of conservation measures designed to minimize the effects of the Project to grizzly bears, including completing Project activities in phases; prohibiting road storage, closure, construction/reconstruction, and road decommissioning between April 1 and June 15 (i.e. grizzly bear spring season); and measures to reduce human attractants and assure human safety provisions. The only Project activities that may occur during the spring season will occur along open roads where grizzly bears are not likely to occur.
7. Ultimately, Project implementation will decrease TMRD and result in a net gain in Core. Upon completion, the Grouse BMU will achieve the standards established in the Biological Opinion on the Access Amendment. The Project will also improve a small portion of riparian habitat along Grouse Creek.
8. The established standards have been analyzed in the Biological Opinion for the Access Amendment (USFWS 2011, entire) where it was determined that the motorized access management standards established for the CYE, including the Grouse BMU, would not jeopardize the continued existence of the grizzly bear.

## 2.8 Incidental Take Statement

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without specific exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm in the definition of take in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or

degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The Forest has a continuing duty to regulate the activity covered by this incidental take statement. If the Forest fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Forest must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

## **2.8.1 Form and Amount or Extent of Take Anticipated**

As described in the Biological Opinion on the Access Amendment (USFWS 2011, pp. A47-A55), the effects of roads upon grizzly bear behavior and habitat use has been documented. It is the Service's opinion that incidental take of grizzly bears is not likely to occur within BMUs achieving the research parameters described in the Biological Opinion on the Access Amendment (USFWS 2011, pp. A57-A60). Conversely, it is also the Service's opinion that incidental take of grizzly bears is likely to occur within BMUs when one or more of the parameters established through research (i.e. OMRD, TMRD, or Core) are not met. Currently, the Grouse BMU does not meet the Access Amendment established standards for OMRD (less than or equal to 59 percent), TMRD (less than or equal to 55 percent), or Core (greater than or equal to 37 percent). Further, the Grouse BMU is unable to meet the research standards due to the intermix of public and private lands. The 2017 condition for the Grouse BMU was 60.4 percent OMRD, 59.2 percent TMRD, and 31.7 percent Core, which is below both the research standards and the established standards set forth in the Biological Opinion on the Access Amendment (USFWS 2011, entire). Consequently, the baseline condition of the Grouse BMU is already causing adverse effects to grizzly bears. The Project will result in additional increases in OMRD that are likely to persist for up to 5 years, and will result in increases in TMRD and a decrease in Core that will persist for up to 2 years. It is the Service's opinion that these increases in OMRD and TMRD, and decrease in Core will result in habitat modification or degradation that causes actual injury to grizzly bears by significantly disrupting normal behavior patterns, including feeding, breeding, or sheltering. Further, it is the Service's biological judgement that incidental take of grizzly bears, in the form of harm due to displacement, will continue throughout Project implementation.

Currently, the Service is unaware of scientific or commercial information that could be used to quantify the exact level of incidental take of grizzly bears as a result of such impacts to or degradation of their habitat, disturbance, or displacement. Reduced reproductive success of females as a result of displacement effects could include grizzly bear cub mortality and/or reabsorption of fetuses. However, this type of mortality usually cannot be documented. Grizzly

bear offspring (cubs, sub-adults) also have naturally high mortality rates. Therefore, the anticipated level of incidental take of grizzly bears as a result of existing conditions or Project implementation is numerically ‘unquantifiable.’ In these instances, we use the surrogate parameters of OMRD, TMRD, and Core within the individual BMUs as measures of incidental take of grizzly bears.

The Service therefore grants take in the form of harm due to an increase in OMRD and TMRD, and due to a decrease in Core. We anticipate OMRD conditions will persist no longer than 5 years, and TMRD and Core conditions will persist no longer than 2 years. Using the surrogate parameters, take is granted in the form of an increase in OMRD by 2.15 percent for the first year, by 2.76 percent for the following 2 consecutive years, and by 0.3 percent for 2 additional, consecutive years between 2022 and 2027. Take is granted in the form of an increase in TMRD by 0.5 percent for 2 consecutive years between 2022 and 2027, and in the form of a decrease in Core by 0.1 percent for 2 consecutive years between 2022 and 2027. Increasing OMRD above 2.15 percent for the first year, above 2.76 percent for the following 2 consecutive years, or above 0.3 percent for the final 2 consecutive years (between 2022 and 2027) will exceed the amount of take analyzed in this Opinion. Additionally, increasing TMRD above 0.5 percent or decreasing core by more than 0.1 percent within the Grouse BMU, or persistence of these TMRD or Core conditions for more than 2 consecutive years between 2022 and 2027 will exceed the amount of incidental take analyzed and exempted by this Opinion.

## **2.8.2 Effect of the Take**

In the accompanying Opinion, the Service determined that this level of anticipated take is not likely to jeopardize the continued existence of the grizzly bear across its range. Some low level of incidental take may occur as a result of displacement of grizzly bears from essential habitat, which is unquantifiable. In cases where the amount of take is unquantifiable, the Service uses surrogate parameters to measure the impact of the take on the species, and provide the threshold at which the anticipated level of incidental take is likely to occur. Based on research related to the displacement of grizzly bears from roads and roaded habitat (USFWS 2013, pp. II-12, II-53 through II-59; USFWS 2011, pp. A47-A54), the Service uses surrogate measures of OMRD, TMRD, and Core to establish the levels of incidental take, and the thresholds at which incidental take is likely to occur. Currently, several BMUs within the CYE contain substantially higher Core and lower TMRD and OMRD than research indicates is necessary for the persistence of the average adult female grizzly bear within her home range. Given the current grizzly bear population levels and distribution, BMUs providing conditions substantially better than the research parameters offer ample opportunities and areas for grizzly bear displacement, moderating the potential displacement effects of the proposed action within the Grouse BMU.

Additionally, upon Project completion, Core in the Grouse BMU will realize a net increase of 7.2 percent and TMRD will decrease by 7.7 percent. Project implementation will ensure compliance with the Forest Plan direction for the Grouse BMU to achieve the motorized access management standards set forth in the Access Amendment (USFWS 2011, entire).

## **2.8.3 Reasonable and Prudent Measures**

The Service believes no reasonable and prudent measures are necessary to further reduce the incidental take of grizzly bears as a result of this action. The Forest has designed the Grouse

BMU Compliance Project to be completed in the shortest timeframe that is practicably possible while minimizing impacts to grizzly bears. In addition, the Forest designed implementation of the Project to minimize the potential for displacement of grizzly bears from grizzly bear core habitat, and has ensured secure dispersal habitat is available for grizzly bears that are displaced as a result of Project implementation. Therefore, no additional reasonable and prudent measures are identified to further reduce the potential for incidental take of grizzly bears. In order to be exempt from the prohibitions of section 9 of the Act, the Forest must implement the Project as described in the Assessment and in this Opinion.

## 2.9 Conservation Recommendations

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery programs, or to develop new information on listed species. The Service recommends that the Forest:

1. Develop, in coordination with the Service and the Interagency Grizzly Bear Committee, a strategy addressing point source disturbances (e.g., helicopter logging, mining, etc.).
2. Work cooperatively with the Service to identify linkage areas that may be important in providing landscape connectivity within and between geographic areas, and across all land ownerships, for grizzly bears.
3. Provide for landscape connectivity within linkage areas by participating in the development and implementation of a management plan to protect and restore habitat connectivity within these areas on Federal lands.
4. Identify and prioritize roads for reclamation or seasonal restrictions within watersheds exceeding 2 miles per square mile of open road density to improve habitat quality and/or security for grizzly bears, Canada lynx, and bull trout, as well as other listed and non-listed fish and wildlife species.

## 2.10 Reinitiation Notice

This concludes formal consultation on grizzly bear for the Grouse Bear Management Unit Compliance Project in Bonner County, Idaho. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if:

1. The amount or extent of incidental take is exceeded.
2. New information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this Opinion.
3. The agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this Opinion.
4. A new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

## 3. LITERATURE CITED

### 3.1 Published Literature

- Interagency Grizzly Bear Committee (IGBC). 1986. Interagency grizzly bear guidelines. Wyoming Fish and Game, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service Fish and Wildlife Service, National Park Service, Idaho Fish and Game, Montana Fish Wildlife and Parks, Washington Game Department. 99 pp.
- Interagency Grizzly Bear Committee (IGBC). 1998. Revised interagency grizzly bear taskforce report: grizzly bear/motorized access management. U.S. Forest Service, Missoula, Montana. 6 pp.
- Kasworm, W.F., T.G. Radandt, J.E. Teisberg, M. Proctor, and C. Servheen. 2013. Cabinet-Yaak grizzly bear recovery area 2012 research and monitoring progress report. U.S. Fish and Wildlife Service, Missoula, Montana. 97 pp.
- Kasworm, W.F., T.G. Radandt, J.E. Teisberg, A. Welander, M. Proctor, and C. Servheen. 2015. Cabinet-Yaak grizzly bear recovery area 2014 research and monitoring progress report. U.S. Fish and Wildlife Service, Missoula, Montana. 96 pp.
- Kasworm, W.F., T.G. Radandt, J.E. Teisberg, A. Welander, W. Wakkinen, M. Proctor, and H. Cooley. 2017a. Selkirk Mountains grizzly bear recovery area 2016 research and monitoring progress report. U.S. Fish and Wildlife Service, Missoula, Montana. 42 pp.
- Kasworm, W.F., T.G. Radandt, J.E. Teisberg, A. Welander, M. Proctor, and H. Cooley. 2017b. Cabinet-Yaak grizzly bear recovery area 2016 research and monitoring progress report. U.S. Fish and Wildlife Service, Missoula, Montana. 101 pp.
- Kendall, K.C., A.C. Macleod, K.L. Boyd, J. Boulanger, J.A. Royle, W.F. Kasworm, D. Paetkau, M.F. Proctor, K. Annis, and T.A. Graves. 2016. Density, distribution, and genetic structure of grizzly bears in the Cabinet-Yaak Ecosystem. *The Journal of Wildlife Management* 80(2):314-331.
- McLellan, B.N. and D.M. Shackleton. 1989. Grizzly bears and resource extraction industries: habitat displacement in response to seismic exploration, timber, harvesting, and road maintenance. *Journal of Applied Ecology* 26:371-380.
- Proctor, M.F., D. Paetkau, B. McLellan, G. Stenhouse, K. Kendall, R. Mace, W. Kasworm, C. Servheen, C. Lausen, M. Gibeau, W. Wakkinen, M. Haroldson, G. Mowat, C. Apps, L. Ciarniello, R. Barclay, C. Schwartz, and C. Strobeck. 2012. Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the northern USA. *Wildlife Monographs* 180:1-46.
- U.S. Fish and Wildlife Service (USFWS). 1993. Grizzly bear recovery plan. U.S. Fish and Wildlife Service, Missoula, Montana. 181 pp.
- U.S. Fish and Wildlife Service (USFWS). 2011. Biological Opinion on the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones on the Kootenai, Idaho Panhandle, and Lolo National Forests. U.S. Fish and Wildlife Service Montana Field Office Kalispell, Montana and

U.S. Fish and Wildlife Service, Northern Idaho Field Office, Spokane, Washington. 227 pp.

U.S. Fish and Wildlife Service (USFWS). 2013. Biological Opinion on the Revised Land and Resource Management Plan for the Idaho Panhandle National Forests. U.S Fish and Wildlife Service, Northern Idaho Field Office, Spokane Valley, Washington.

U.S. Forest Service (USFS). 2011. Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones. Record of Decision. Kootenai, Lolo, and Idaho Panhandle National Forests Lincoln, Sanders, Bonner, Boundary, and Pend Oreille Counties Montana, Idaho, and Washington. U.S. Forest Service. November 2011.

U.S. Forest Service (USFS). 2017. Biological Assessment, Grouse BMU Compliance Project. Idaho Panhandle National Forest, Sandpoint Ranger District, Bonner's Ferry, Idaho. December 2016. U.S. Forest Service. 40 pp.

## **3.2 *In Litteris* References**

Hennings, K. *in litt.* 2017. Email from Kris Hennings with attachment containing comments on the Biological Assessment for the Grouse BMU Compliance Project.

Hennings, K. *in litt.* 2018. Email from Kris Hennings with attachment containing comments on the Biological Assessment for the Grouse BMU Compliance Project.

Kasworm, W. *in litt.* 1999. White paper discussing effects to grizzly bears from road use and the designation of administrative use limits for use on restricted roads.

Servheen, C. *in litt.* 2013. Email from Chris Servheen regarding status of grizzly bears in the Bitterroot Ecosystem.

Stash, S., *in litt.* 2018. Email discussing the source of the acronym BRC.

## 4. APPENDICES

### 4.1 Appendix A. Grizzly Bear Management and Protection Plan

Excerpted from the Assessment (USFS 2017; Attachment A, p. 35).

Forest employees, volunteers, contractors, subcontractors, and other Federal/State agencies will comply with the following requirements in the conduct of any activities conducted in or adjacent to BMUs on National Forest System lands. This protection plan will be made available to all personnel conducting activity within or adjacent to BMUs and will be displayed in a conspicuous location at any contractor/subcontractors place of business and in each camp. This plan will be reviewed during a pre-work meeting with contractors; and with Forest Service employees/volunteers in conjunction with Job Hazard Analysis reviews.

1. All personnel involved in activities within grizzly bear habitat on National Forest land will be given information relating to identification of bear species and human conduct prior to the start of activities. Brochures concerning human use in grizzly country and bear identification are available at Forest Service offices. The contractor is responsible for making employees aware of the following information:
  - a. The grizzly bear is classified as threatened under the Endangered Species Act.
  - b. The Forest Service is mandated to conduct management activities in a manner that promotes recovery of all threatened and endangered species.
  - c. The areas they are working in are within grizzly bear habitat and are essential to the recovery of the bear.
  - d. Grizzly bear/human encounters are possible.
  - e. In compliance with the Idaho Panhandle National Forests Food Storage Order, the proper techniques of food handling and storage, travel, camping, and other such activities are required to reduce opportunities for conflict.
  - f. Penalties for illegal killing of grizzly bears include up to \$100,000 fine and one year in jail.
2. All personnel will be given a copy of the Idaho Panhandle National Forests Food Storage Order and will adhere to the requirements contained within it.
3. The contractor will adhere to all restrictions as outlined in current Idaho Panhandle National Forests Motor Vehicle Use Map, unless authorized otherwise.
4. The responsible party shall report the death and location of livestock to a Forest Service official within 24 hours of discovery.
5. The responsible party shall report any human/bear conflicts or grizzly bear observations to the Forest Service.

#### **Additional Camping Provisions**

1. Dispose of human waste and gray water in a pit or hole, well away from campsites. Cover with sod or topsoil.
2. Follow "Leave no Trace" techniques.

## **Human Safety Provisions**

1. If you observe a grizzly bear - detour or leave the area. A sow with cubs is particularly dangerous, as is a bear that has been surprised.
2. Use caution in approaching carcasses or gut piles.