This is the final Wildlife and Sensitive Plant Management Program Analysis of Impacts for the Project on TES (Not Consulted on by SCNF) Species, SCNF terrestrial Management Indicator Species (MIS), and wildlife species referred to in Executive Orders (EO) that occur on the SCNF. This Analysis, for TES (Not Consulted on by SCNF) Species was prepared in accordance with the TES Species List obtained from the United States Fish and Wildlife Service website for Lemhi County, Idaho, which encompasses the Salmon-Challis National Forest North Zone, on 11 April 2011 (USDI USFWS 2011.04.11. Canada lynx (Lynx canadensis) is 1 of 2 USA Federally Listed Threatened and Endangered terrestrial wildlife and plant species (TES) listed for Lemhi County, Idaho (USDFWS. 2010.07.08). The SCNF is not required to consult under section 7 of the ESA for effects to Canada lynx from actions proposed by the SCNF per a US Fish and Wildlife Service (USFWS) communication to the SCNF, which was received on 2007.06.12 (USDFWS 2007.06.12). No change in this status of consultation requirements has been identified to date. This Analysis, for TES (Not Consulted on by SCNF) Species, was further prepared under advice and guidance from the USFS Region 4 Threatened and Endangered Species Program Manager L. Jacobson. Jacobson 2011.04.13. The analysis was prepared in accordance with the Endangered Species Act (ESA) and with Forest Service Manual direction to review all Forest Service activities to ensure that such activities do not contribute to a downward trend in population numbers or density of TES (not consulted on by the SCNF) Species and/or a downward trend in habitat capability, either of which might ultimately result in the need for federal listing (FSM 2672.1 and 2672.4). This Analysis, for MIS, was prepared in accordance with the MIS species list provided by the Salmon-Challis National Forest (SCNF). This Analysis, for Federal Government Executive Orders (EO) wildlife species, was prepared in accordance with direction received with the EOs and with Memoranda of Understanding (MOU) developed between the USFWS and other agencies/entities. This Analysis and its impacts determinations are based on the Best Available Science (BAS). BAS is from information from the best known available and most recent known available studies of a species and its habitat. This Analysis, and its effect/impacts determinations, is based on the project proposal description provided to complete this document. Any modifications to the project description or project, as proposed, invalidate these determinations. Any and all project activities not disclosed in the proposed action and analyzed report are not covered by this report. A FS Journey Level Wildlife Biologist will review this report and any future changes to the proposed project. This review will compare all changes made to the proposed project to this Analysis and determine whether or not the SCNF needs to initiate other analyses. Any and all proposed projects subsequent to this decision will require separate and specific analyses for impacts to terrestrial MIS, and Executive Order Wildlife, as dictated by those proposed action(s). As an addendum to be attached to this Wildlife Specialist Analysis, the project IDT Leader will provide the wildlife biologist who wrote this Analysis with a signed copy of the project Decision Memo/Notice.

TES (Not Consulted On by the SCNF) Species:
Canada Lynx (Lynx canadensis)- Threatened (USDFWS 2010.07.08).

Salmon-Challis National Forest Management Indicator Species (MIS):
The Management Indicator Species lists were identified in the Forest Plan Amendments of February 3, 2004 (USFS 2004). For both the Salmon and the Challis National Land and Resource Management Plans, the bull trout, greater sage-grouse, piliated woodpecker, and Columbia spotted frog were selected. Of these only the latter three species are covered in this document.
Piliated Woodpecker (Dryocopus pileatus)- Management Indicator Species for Forested Habitat
Greater sage-grouse (Centrocercus urophasianus)- Management Indicator Species for Sage Steppe Habitat
Columbia spotted frog (Rana luteiventris)- Management Indicator Species for Riparian Habitat

Executive Orders (EO) Wildlife:
Migratory Bird Treaty Act (MBTA) Species: Neotropical Migratory Bird Species (EO 13186)
Facilitation of Hunting Heritage and Wildlife Conservation (HHWC) Species (EO 13443): Shiras moose, Rocky Mountain elk, mule deer, pronghorn antelope, bighorn sheep, mountain goat, American marten, bobcat, mountain lion, and black bear.

1. Project Determination:
The proposed project has been determined to have an impact finding on SCNF TES (Not Consulted On by SCNF), MIS and EO Wildlife Species of:

1. **No Effect** on: TES (Not Consulted On by SCNF) Species- Canada Lynx
2. **May Impact** but **Not Likely to Adversely Impact** on: MIS Species- Columbia spotted frog; EO MBTA Species- LOCON, PPINE, and RIPARIAN; EO HHWC Species- Shiras moose, elk, mule deer, American marten, bobcat, mountain lion, and black bear.
3. **No Impact** on: MIS species- piliated woodpecker and greater sage grouse--; EO HHWC Species- bighorn sheep, mountain goat, and pronghorn antelope.

The rationale for these determinations on SCNF TES (Not Consulted On by SCNF), MIS and EO Wildlife Species are as follows:

1. The project area is not within a Canada Lynx Analysis Unit (LAU) and there is no known mapped habitat for Canada lynx within or in close proximity to the Action Area. There is no known critical habitat for Canada lynx in or near the project area. Canada lynx is not known to den, or to reproduce, in the proposed project area.
2. Historical presence of Canada lynx has been recorded on the north zone of the Salmon-Challis National Forest. But, no genetically verified evidence of lynx on the SCNF has been documented since 1999. The SCNF is currently considered un-occupied, but suitable, secondary lynx habitat (USDFWS 2007.06.12).
3. Critical Populations of, and/or Critical Habitat for, Canada lynx have not been designated or documented to exist either within the Project Action Area or in the vicinity of the Project Action Area.
4. Northern Rockies Lynx Management Direction (2007) determined that while lands within the SCNF are considered un-occupied by lynx, annual monitoring will be completed to detect their potential re-occurrence and to detect/measure the amount of alteration of identified lynx habitat in Lynx Analysis Units (LAU). To date, no re-occurrence of Canada lynx has been detected/recorded on the SCNF, and thus no resumption of Consultation Requirements for Canada lynx for the SCNF has been identified.
5. The presence of SCNF MIS and EO Wildlife Species: MIS- piliated woodpecker, Columbia spotted frog, EO- MBTA species- LOCON, PPINE, and RIPARIAN; and EO- HHWC Species- Rocky Mountain elk, mule deer, and American marten, has been verified within, in proximity to, or within a Reasonable Travel Distance to, the Action Area.
6. There is known crucial habitat for EO- HHWC Wildlife Species- Rocky Mountain elk (calving area) within, and adjacent to, the Action Area.
7. There is no known crucial habitat for SCNF MIS and EO Wildlife: MIS- pileated woodpecker, sage grouse, Columbia spotted frog, EO-MBTA species- LOCON, PPINE, and RIPARIAN; and EO-HHWC Species- Shiras moose, mule deer, bighorn sheep, mountain goat, pronghorn antelope, American marten, bobcat, mountain lion, and black bear within the Action Area.

8. There is wintering habitat for EO-HHWC species: Shiras moose, elk, and mule deer located within the Project Area.

9. There is no known habitat suitable within the Action Area for SCNF TES (Not Consulted On), MIS, and EO Wildlife Species: TES (Not Consulted On) Canada lynx; MIS- sage grouse; EO-MBTA species- LOCON, PPINE, and RIPARIAN; and EO-HHWC Species- Shiras moose, elk, mule deer, American marten, bobcat, mountain lion, and black bear.

10. Project Management Constraints and Design Features developed by the Project Issues Determination Team (IDT) to address potential adverse environmental impacts reduce the potential for those impacts to affect SCNF TES (Not Consulted On), MIS, and EO wildlife species: MIS- pileated woodpecker, Columbia spotted frog; EO-MBTA species- LOCON, PPINE, and RIPARIAN; and EO-HHWC Species- Shiras moose, elk, mule deer, American marten, bobcat, mountain lion, and black bear.

Prepared By: Michael Steck
Title: Salmon-Challis NF North Zone Wildlife Biologist
Date: 2011.04.26

2. Project Description

| District: North Fork |
| Project Lead: July Hopkins- SCNFNZ Minerals Management Program Specialist |

Project Need, Purpose, and Proposed Action

Purpose and Need for Action

The need for the Forest Service to take action now is to respond to the claimant’s legitimate request to explore for minerals on National Forest System lands, by conducting an environmental analysis for the submitted plan of operations (36 CFR 228.4(f)).

The purpose of this analysis is to provide for approval of a Plan of Operations to explore for and produce locatable minerals, as required by Forest Service mining regulations located in the Code of Federal Regulations, Title 36, Part 228, Subpart A (36 CFR 228A). This action will also meet the goal outlined in the Salmon National Forest Land and Resource Management Plan (Forest Plan, 1988) to encourage the legitimate exploration and extraction of leasable and locatable minerals from National Forest lands while maintaining or improving other resource values.

This analysis serves to document how the Forest Service will protect surface resources, in accordance with Forest Service minerals regulations (36 CFR 228.8) and all other applicable laws and regulations, when the District Ranger takes the action of approving the Plan of Operations (36 CFR 228.5), as amended by the project design criteria itemized in this environmental analysis.

Forest Service Minerals Laws and Regulations

Forest Service policy in Title 36 Code of Federal Regulations Part 228 (36 CFR 228.1) states that use of the surface of National Forest System lands in connection with operations authorized by the United States mining laws (30 U.S.C. 21–54) shall be conducted so as to minimize adverse environmental impacts on National Forest System surface resources. While Federal law permits mining operations on National Forest lands; it also charges the agency with the prevention of unnecessary destruction of Forest lands and regulation of occupancy and use of the surface for purposes reasonably incident to prospecting, mining, or processing, primarily under the Organic Act of 1897 and the Surface Resources Act of 1955.

Forest Service Manual Direction

Relevant policy in the Minerals and Geology Manual (FSM 2802) states that the Forest Service will:

1. Encourage and facilitate the orderly exploration and development of mineral and energy resources on National Forest System lands to maintain a viable, healthy minerals industry, and

2. Ensure that exploration, development, and production of mineral and energy resources are conducted in an environmentally sound manner.

Forest Plan

The Forest-wide goal set forth in the plan is to (Forest Plan IV-3) encourage the legitimate exploration and extraction of leasable and locatable minerals from National Forest lands while maintaining or improving other resource values.

The project is in a Management Area 3A-5A, with emphasis on aquatic habitat management for anadromous fish species (Forest Plan, page IV-107).

Proposed Action

The action proposed by the Forest Service to meet the purpose and need is to process and approve the proponent’s Plan of Operations to conduct placer exploration along Hughes Creek. This analysis is required prior to approving the proponent’s Plan of Operations.

Other requirements for approval would include formal incorporation of the design criteria itemized in this document into the Plan and posting of a bond calculated by the Forest Service to insure the costs of reclamation. Implementation would also include Forest Service administration of the operation in accordance with regulations at 36 CFR 228.7-228.8.

This analysis and the attendant decision will cover the operator’s March 14, 2010 proposal as amended by the design criteria herein. If the proponent intends to use other methods or plans additional activities, he is required to submit a revised, supplemental, or new
Plan of Operations and the proposed operations would be reviewed with additional site-specific analysis and public scoping. A separate decision and approval would be required.

Project Description

I  Cliff Simonsen (the operator) of Victor, MT has submitted a plan of operation that proposes excavation of test trenches and placering for gold at four sites along the on the south side of Hughes Creek between Gallagher Gulch and Klop Gulch. The project is anticipated to begin during summer 2011. The project will occur on National Forest lands managed by the North Fork Ranger District, Salmon-Challis National Forest. Legal description is T.25N., R.21E., sections 7 and 8, Boise Prime Meridian, Lemhi County, Idaho.

Primary access to the site is via Forest Road #091 (Hughes Creek Road). A small tracked excavator or backhoe will walk in to the site from Hughes Creek Road at the beginning of operations, and walk out at the cessation of operations. The excavator or backhoe will excavate up to four test trenches. Access will require fording of Hughes Creek and overland travel on an old existing prospecting route(s). There will be no new road construction, road reconstruction, or re-opening of closed system roads as part of the project. All test trenches are located between the creek and the base of the hillside. Reference the attached map.

In addition to fording of Hughes Creek, on two occasions by the excavator or backhoe, the operator plans to ford Hughes Creek on the existing prospecting route twice each weekend - once going in to the site and the other coming out - with a pickup truck pulling a cargo trailer. The cargo trailer contains an ATV, wash plant, and sleeping/camping facilities. Planned duration of operations is for weekends throughout the period from July 1 through October 1, resulting in a potential of 30 crossings over the 3-month period by the operator.

At each test site, a trench approximately 2 feet wide, 40 feet long, and ≤10 feet deep (or until groundwater is intercepted), will be excavated to bedrock perpendicular to the existing prospecting route. All operations (including placement of excavated materials) will be no closer than 10 feet from the outside edge of the road prism (that side of the road closest to Hughes Creek).

Each trench will first be excavated in its entirety and excavated material will be segregated into topsoil, overburden, and potential pay gravels and placed adjacent to the trench. Approximately 40 cubic yards in volume may be excavated from each trench, anticipating 10 cubic yards of potential gold-bearing gravels in the lower five feet of the excavation that will be washed.

Samples will be processed in a small wash plant with two integrated sluice boxes. The wash plant is on wheels and small enough to be pulled by an ATV. Discharged spoils from the wash plant are run back into the trench where water is allowed to filter subsurface. Waste water will not be allowed to overtop the trench. Should water in the trench fail to subside, it will be recirculated from the trench during operations rather than being pumped from Hughes Creek.

Water used for processing will be pumped to the wash plant from Hughes Creek using a 1.5” discharge pump. The operator proposes to backfill and reshape the test trenches to a slightly mounded contour, anticipating settling in the trench locations, and perform other erosion control measures should they be necessary. Each trench shall be reclaimed prior to excavating a new trench. Operations, including reclamation, should be completed during the 2011 operating season.

The operator will provide a financial instrument to insure costs to complete site reclamation are available before the Plan will be approved.

Trench excavation and associated operations (i.e., pumping water from Hughes Creek, campsite maintenance, fuel transfers) will be conducted described in the following section.

II Design Criteria to be Incorporated into the Operating Plan:

Administration and General Site Requirements

1. The Operator will notify the Forest Service (FS) a minimum of three days in advance prior to commencing initial activities. Prior to commencing activities, the FS Administrator and the operator shall review locations for the test trenches.

2. Operations shall be conducted under dry conditions. Dry conditions generally exist from July 1 until October 1.

3. The operator will sign the area on the north side of Hughes Creek, prior to entering the stream ford, notifying area visitors that exploration is occurring in the area.

4. The operator will arrange for the Forest Service to inspect his excavator, ATV and wash plant for potential weed propagules prior to commencing initial activities.

5. The operator will maintain the necessary fire prevention tools at the site.

6. The operator will dispose of camper holding tank contents (if applicable) at an offsite facility or provide a temporary portable toilet.

7. The operator will collect, remove and properly dispose of garbage at an off-Forest facility at the end of each operational period (weekend).

Fisheries

8. A permit for water use will be applied for from the Idaho Department of Water Resources. The operator will not exceed the maximum amount allowed specified in the temporary permit of 0.74 acre feet per day.

9. Placer water will be obtained from Hughes Creek at a location reviewed and approved by the Minerals Administrator.

10. Any draft suction hoses used for water withdrawal from Hughes Creek would be equipped with a screen meeting requirements established by the National Marine Fisheries Service (Appendix A). The creek will not be dammed for water drafting.
11. In order to prevent petroleum products from entering the stream-channel from the pump at the water drafting sites or from the wash plant, they will be placed on an impermeable liner capable of containing their entire volume of petroleum, etc. Water in the liner, which may be contaminated with petroleum products, will be collected and disposed of at an offsite facility. If a reportable quantity of petroleum or hazardous substance is released, it will be reported to the Forest Service immediately. If directed by the USFS any contaminated soils will be removed to an approved disposal/treatment facility.

12. Refueling of equipment will occur at a location designated by the Forest Service on the project side of Hughes Creek. This location will be limited by terrain to minimize the potential for petroleum products to enter the stream, and will also minimize the frequency of equipment and vehicles fording Hughes Creek. A spill kit will be maintained at this location.

Water Quality

13. Excavated materials from the test trenches may become saturated with groundwater or rain, contributing silt to Hughes Creek. To prevent this, the operator will be required to install siltation controls approved by the Forest Service.

14. During active mining operations, seepage and turbidity will be visually monitored by the operator and the Forest Service. If visible turbidity is observed in Hughes Creek, mining operations will cease until they can be modified to prevent sediment delivery to the stream.

Wildlife

15. Should an active TES or sensitive species den be found in or near the project area, appropriate mitigation measures as determined by the USFS would be implemented to avoid disturbance to and/or abandonment of the den, if necessary.

16. Should an active TES or sensitive species raptor nest be found within 0.5 miles of the project site while project activities are on-going, the Salmon LRMP standard of a 0.25-0.5 mile radius “no activity” buffer will be implemented while unfledged young are present.

Reclamation

17. The operator will be required to backfill and reshape the test trenches as specified previously. The operator will be required to seed with an approved seed mix and cover the reclaimed test trenches with straw mulch. The mulch layer will provide ground cover, reduce the potential for erosion, and promote revegetation of the disturbed area.

18. Should water fail to subside in a trench ready for reclamation, it will be pumped to a location approved by the Forest Service where it can slowly run out overland (such as via a 1.5”-3” hose), and filter out subsurface.

19. Each trench shall be reclaimed prior to excavating a new trench, or the end of the operating season, whichever comes first.

20. The bond for this operation must be posted prior to commencing any exploration activities. The amount of bond will be calculated to ensure full reclamation and revegetation of areas disturbed by the exploration activity.

21. All soil-disturbed sites associated with project activities will be monitored for the establishment and/or spread of noxious weeds. All new noxious weed infestations found at the project site will be treated for eradication by a licensed pesticide applicator. Weed treatment will occur during the spring following exploration.

22. A comprehensive list of mitigation measures that will be required as modifications of the operator’s plan are contained in the Forest Land and Resource Management Plan (FLRMP) (IV-51 item 1a and Appendix C VII-C-pg. 1- 14). They are the standards and guidelines for locatable minerals operations that occur on the Forest.

**Project Schedule and Duration:** Cliff Simonsen has proposed a project start-up of summer 2011, with trenching, placering, and associated reclamation should be being completed during the 2011 operating season.

3. Analysis of Effects to Wildlife Resources and TES Species

**Salmon National Forest Land and Resource Management Plan (LRMP) Direction**

The project is expected to meet the following Salmon National Forest Land and Resource Management Plan (LRMP) Goals, Standards and Guidelines, and Management Area directions that pertain to the proposed Project Action within the Project Action Area.

**LRMP Goals- for Wildlife Resources (IV- 1, 2)**

- Provide wildlife habitat of sufficient quantity and quality to sustain target populations of economically important management indicator species.
- Provide wildlife habitat of sufficient quantity and quality to, at least, maintain minimum viable populations for all other management indicator species.
- Improve elk habitat on the forest to achieve a moderate increase over current population levels.
- Manage classified threatened and endangered species habitat to maintain or enhance their current status.
- Explore opportunities to cooperate with Idaho Department of Fish and Game in reintroductions of bighorn sheep, in areas of suitable, vacant, historic habitat.
- Maintain aquatic habitat capability at a level sufficient to meet State water quality and species production goals for both resident and anadromous fisheries.
- Maintain watershed conditions and water quality such that downstream beneficial uses are protected and compliance with State standards is achieved. Water rights issued by the State of Idaho will be recognized by the Salmon National Forest.
- Conduct management and resource development within riparian zones in a manner compatible with protection of water quality and fish habitat.
LRMP Standards and Guidelines- for Wildlife Resources (IV-19).

General Direction- Provide the Salmon National Forest portion of the habitat needed to meet Regional Wildlife Management Objectives.

- Habitat for each vertebrate wildlife species on the Forest will be managed to ensure viable or target populations.
- Contribute to the local and State economies by providing favorable habitat for socially and economically important wildlife species.
- Place emphasis on improving key ecosystems including, but not limited to: riparian, aspen, aquatic, snag, and old growth.
- Manage and provide habitat for recovery of endangered and threatened species, as specified in the Species Management Plan for the Salmon National Forest.
- Compliance with all applicable Northern Rockies Lynx Management Direction (NRLMD2007) amendment to the Salmon and the Challis Forest Plans Conservation Measures for fuels management activities.

LRMP Goals- for Vegetative Forest Diversity (IV-1)

- Maintain adequate structural diversity of vegetation on Forested land to ensure habitat for minimum viable or target populations of all wildlife species, and to provide representations of the various ecological states of endemic plant communities.

LRMP Management Area Prescription: 3A-5B, for the Project Area. Anadromous Fisheries and Timber Emphasis area.

Management emphasis is on aquatic habitat management for anadromous fish species and producing long-term timber outputs through high investments in regeneration and thinning.

Management Area 3A-5A Wildlife Standards and Guidelines applicable to the project.

- Maintaining habitat for target or viable populations of all native vertebrate species of fish and wildlife (IV-116).
- Manage big game summer ranges to support target populations on each game management unit (GMU) (IV-121).

While each management area prescription places an emphasis on management of one or several Forest resources they also promote other activities that are designed to achieve the goals and objectives established by the Forest Land and Resource Management Plan (FLRMP). Forest goals encourage the legitimate exploration and extraction of locatable minerals from NF lands while maintaining or improving other resource values (FLRMP, IV-3).

2009 Travel Management Plan: The majority of the primary access route to the project area, Hughes Creek Road (FSR 60091), is located on private lands. The last 1 mile of primary access route is located on NFS administered lands. Approximately 300 ft. of access route is located on an old existing prospecting route/road that spurs off of primary access route FSR 60091 and fords Hughes Creek. This section of route/road is not shown on the SCNF Motor Vehicle Use Map 2010, but does exist on the ground. This section of the access route is within the 300 ft dispersed camping permitted corridor of FSR 60091. Limited cross-country motor vehicle use is permitted within this corridor.

Project Site and Area Description, and Existing Condition

The project area is to be accessed via the following roads: Primary access to the site is via Forest Road #091 (Hughes Creek Road). Access will require travel across the Riparian Habitat Conservation Area (RHCA) of, and fording of Hughes Creek on an old existing prospecting route. The primary access road and the existing accessing route/road have existing locations of noxious weeds alongside and within them. Spotted knapweed was noted alongside the primary access road. Bertera spp. was noted alongside and within the prospecting route/road (Steck 2010). Reference attached Map 1.

Project Site(s): The Hughes Creek Placer Exploration- Cliff Simonsen Project is comprised of 5 sites at 1 location on National Forest lands administered by the North Fork Ranger District, Salmon-Challis National Forest. Legal description is T.25N., R.21E., sections 7 and 8, Boise Prime Meridian, Lemhi County, Idaho. The project sites are located on the south side of, and within the Riparian Habitat Conservation Area (RHCA) of, Hughes Creek between Gallagher Gulch and Klop Gulch. All project sites are within 300 feet of live water. The sites will consist of 4 test trench sites to be excavated along the existing prospecting route/road, and 1 personnel campsite with a vehicle/equipment parking area. All sites are located upon or alongside the old existing prospecting route/road on previously disturbed ground. All test trench sites are to be located between Hughes Creek and the base of a hillside to the southwest. At each test site, a trench approximately 2 feet wide, 40 feet long, and ≤10 feet deep (or until groundwater is intercepted), will be excavated to bedrock peripheral to the existing prospecting route. All operations (including placement of excavated materials) will be no closer than 10 feet from the outside edge of the route/road prism (that side of the route/road closest to Hughes Creek). Water for processing at each test site will be pumped to the site from Hughes Creek using a 1.5” discharge pump and hose that will be run across the floodplain. The project sites are bordered by the Hughes Creek floodplain alongside the old existing prospecting route/road to the northeast and a moderately steep to steep hillside alongside the old existing prospecting route/road to the southwest. The entire project location containing all project activities is approximately 10 acres in size. Reference attached Map 2.

Action Area: One direct, indirect, and cumulative effects Project Action Area that surrounds the 5 project sites, the old existing prospect access route/road, and a portion of the primary access route (Hughes Creek Road FSR 091) to the project sites location was delineated for analysis of effects of the project on TES wildlife species. The Project Action Area is located on the Salmon-Challis National Forest, in the Hughes Creek HUC 6 drainage (170602030605), North Fork Salmon River HUC 5 sub-watershed, Middle-Salmon Panther HUC 4 watershed, of the Salmon River Basin, of the Columbia River Watershed. The Action Area extends for 0.5 miles up Hughes Creek drainage from Project Site center and 0.7 miles down drainage. From a lower, Hughes Creek valley-bottom elevation of approximately 4250 feet, it extends north 0.5 miles up Humbug Creek drainage to an elevational contour of 5250 ft. The Action area extends south up Gallagher Gulch 0.5 miles to an elevational contour of 5250 feet. The project Action Area encompasses only NFS lands. Reference attached Map 3.
The Action Area is approximately 550 acres in size. The Project Action Area was selected as being of appropriate size to: 1) encompass immigration/emigration/travel of terrestrial wildlife into/through the Project Area, 2) account for noise disturbance and human presence effects of Project Activities, and 3) account for project effects flowing downstream from Project Activity Sites.

**Action Area Existing Condition:** A field review of the proposed exploration project was conducted on 2010.07.08. In terms of baseline vegetative conditions, of the approximately 550 acres within the Action Area, the following approximate ecological habitat-type configuration and acreage has been determined:

- 30 acres of Hughes Creek RHCA and floodplain RIPARIAN habitat type,
- 70 acres of moderately to steeply sloped PPINE (Ponderosa Pine) coniferous forested upland valley-hillside habitat, generally on south and west facing slopes, and
- 450 acres of moderately to steeply sloped LOCON (Low Elevation Conifer) coniferous forested upland valley-hillside habitat, generally 550 on north and east facing slopes.

<table>
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<tr>
<th>Action Area Vegetation Cover-type</th>
<th>Acres</th>
<th>%</th>
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<tr>
<td>RIPARIAN</td>
<td>30.00</td>
<td>5.0</td>
<td>5% Non-forested</td>
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<tr>
<td>PPINE (Ponderosa pine)</td>
<td>70.00</td>
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<td></td>
</tr>
<tr>
<td>Douglas-fir (LOCON)</td>
<td>450.00</td>
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</tbody>
</table>

The Hughes Creek RHCA floodplain riparian habitat is a relatively flat valley-bottom floodplain and creek that drains to the southeast. This riparian habitat has been previously disturbed by placer mining activities. Dominant vegetation types within the riparian habitat are young 10-30 ft aspen/cottonwood, willow, and sedge. The riparian area is well-vegetated and stable.

The PPINE south and west facing hillsides are open conifer forested with an overstory tree layer of large diameter Ponderosa Pine, an understory tree layer of Douglas fir/Lodgepole Pine and a forest grass groundcover layer. This habitat is vegetated and stable.

The LOCON north and east facing hillsides are closed conifer forested with an overstory tree layer of Douglas Fir, an understory tree layer of Douglas fir/Lodgepole Pine, a sparse forest shrub layer, and a forest grass groundcover layer. This habitat is vegetated and stable.

There is 1 Designated Old-Growth (DOG) Timber Stand within and/or adjacent to the Action Area. This stand is 88 acres in total size. The portion of the DOG stand within the Action Area is 55 acres.

There has been 1 recorded large wildfire incident within and/or adjacent to the Action Area in 1910. This incident burned approximately 510 acres of the Action Area, including through the Project Site. Only 40 acres of southeast facing hillside slope in the northwest section of the Action Area was not burned by this incident.

There has been 0 acres of prescribed fire within the Action Area.

There have been 4 recorded timber sale and/or fuel selective tree harvests within the Action area. Harvest of 137 acres occurred in 1970, 104 acres in 1975-76, 34 acres in 1980 and 98 acres in 1998. Total acreage of harvests was 373 acres.

The Action Area is not within any Inventoried Roadless Area. Road density in the North Fork Salmon River HUC 5 is 2.70 mi/mi². This is considered to be a “Functioning at Unacceptable Risk” Level. No routes, roads, or trails are proposed to be constructed, reconstructed, re-opened, re-closed, or closed as part of this project.

No Special Areas, or Research Natural Areas are located within, adjacent to, or near the Action Area.

### 4. Activities and Actions within Project Area- Cumulative Effects

In order to understand the contribution of past actions to the cumulative effects of the proposed action and alternatives, this analysis relies on current environmental conditions as a proxy for the impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects.

This cumulative effects analysis does not attempt to quantify the effects of past human actions by adding up all prior actions on an action-by-action basis. There are several reasons for not taking this approach. First, a catalog and analysis of all past actions would be impractical to compile and unduly costly to obtain. Current conditions have been impacted by innumerable actions over the last century (and beyond), and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Second, providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action or alternatives. In fact, focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions have. By looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects. Third, public scoping for this project did not identify any public interest or need for detailed information on individual past actions. Finally, the Council on Environmental Quality issued an interpretive memorandum on June 24, 2005 regarding analysis of past actions, which states, “agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.
The cumulative effects analysis in this (EA or EIS) is also consistent with Forest Service National Environmental Policy Act (NEPA) Regulations (36 CFR 220.4(f)) (July 24, 2008), which state, in part:

“CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions. Once the agency has identified those present effects of past actions that warrant consideration, the agency assesses the extent that the effects of the proposal for agency action or its alternatives will add to, modify, or mitigate those effects. The final analysis documents an agency assessment of the cumulative effects of the actions considered (including past, present, and foreseeable future actions) on the affected environment. With respect to past actions, during the scoping process and subsequent preparation of the analysis, the agency must determine what information regarding past actions is useful and relevant to the required analysis of cumulative effects. Cataloging past actions and specific information about the direct and indirect effects of their design and implementation could in some contexts be useful to predict the cumulative effects of the proposal. The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all individual past actions. Simply because information about past actions may be available or obtained with reasonable effort does not mean that it is relevant and necessary to inform decision-making. (40 CFR 1508.7)”

For these reasons, the analysis of past actions in this section is based on current environmental conditions.

Table 2. Partial Catalog of Past, Present and Reasonably Foreseeable Future Activities and Actions.

<table>
<thead>
<tr>
<th>ACTIVITIES &amp; ACTIONS</th>
<th>PAST</th>
<th>PRESENT</th>
<th>REASONABLE FORESEEABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Management</td>
<td>No recorded projects</td>
<td>No active projects</td>
<td>No planned projects</td>
</tr>
<tr>
<td>Fuelwood Gathering</td>
<td>Occurs on National Forest lands where accessible by transportation system</td>
<td>Continued use dependent on seasonal access and other available fuelwood sources in proximity to communities.</td>
<td>Foreseeable continued use in accessible areas.</td>
</tr>
<tr>
<td>Prescribed Burning and Fuels Reduction</td>
<td>No recorded past burning projects.</td>
<td>No active projects</td>
<td>No planned projects</td>
</tr>
<tr>
<td>Wildfire Occurrence History and Fire Suppression</td>
<td>USFS has primary responsibility on public and private lands for fire suppression. 1910 1 recorded wildfire= 510 acres 1974-1989 3 small wildfires= 2 acres</td>
<td>Current fires would be suppressed according to strategies determined through application of Appropriate Management Response.</td>
<td>Wildland fires will continue to occur in the area and suppression efforts will be made to control those fires. Suppression related activities will continue to be rehabbed.</td>
</tr>
<tr>
<td>Insects &amp; Disease Outbreak History and Management of Insects and Disease</td>
<td>Endemic levels of forest pests and disease have been recorded. Levels dependant on weather cycles, forest stand conditions, past harvest and fire cycles.</td>
<td>Current endemic activity occurring because of Douglas-fir beetle, western spruce budworm, western pine beetle and dwarf mistletoe presence due to stand density, age and diversity conditions and recent drought. Project area susceptible to epidemic outbreaks. Fire is only a minimal factor in controlling outbreaks due to suppression actions for past 75+ yr.</td>
<td>Foreseeable endemic levels and possible epidemic outbreaks and cycles of pest and disease reasonable based on forest health, weather and lack of fire cycles. Epidemic levels may be probable to occur based on climate change.</td>
</tr>
<tr>
<td>Noxious Weed Infestation History and Management of Noxious Weeds</td>
<td>Number of noxious weed species and acreage of invasion is minor. No known projects for management of noxious weeds conducted.</td>
<td>Number of noxious weed species and acreage of invasion is considered moderate. No known active projects for management of noxious weeds currently occurring. A weed survey was conducted as part of project analysis</td>
<td>No planned projects. Continued integrated management with emphasis on preventative measures, actions, and treatment is planned but is dependent on available funding.</td>
</tr>
<tr>
<td>Wildlife Habitat/Riparian Enhancement</td>
<td>No recorded projects</td>
<td>No active projects.</td>
<td>No planned projects</td>
</tr>
<tr>
<td>Grazing and Grazing Management</td>
<td>On the SCNF, unregulated and then regulated (since 1906) grazing of horses, cattle and sheep since early settlement of area in 1870’s. Action Area is within the Indian Ridge C&amp;H Grazing Allotment-Hughes Creek Pasture. Allotment is managed under a rest/rotation permit system.</td>
<td>Maintenance of fences, cattleguards, and water developments to continue so as to facilitate grazing management strategies according to Salmon LRMP in area.</td>
<td></td>
</tr>
<tr>
<td>Resource Inventory &amp; Monitoring</td>
<td>Inventory of plant communities, wildlife and fish habitat/populations, soil/water/air resources, human uses, etc.</td>
<td>Project site inventory by Hughes Cr Placer IDT in July 2010. Monitoring is on-going by federal, state management and/or regulatory agencies, non-governmental individuals and/or organizations.</td>
<td>Continued inventory and monitoring activity based on information needs and/or requirements by agencies and NGOs</td>
</tr>
<tr>
<td>Transportation System-Road/Trail Construction, Maintenance, Use</td>
<td>Roads to mining operations, grazing allotments, logging areas and private property constructed and maintained.</td>
<td>Currently approx. 2.15 miles of mapped system roads in the Action Area. Road density is calculated at 2.4mi/mi² in the Action Area.</td>
<td>Continued management of existing road/trail system under 2009 Travel Management Plan. Routine maintenance of trails as needed.</td>
</tr>
<tr>
<td>OHV Use and Management</td>
<td>Limited regulation prior to 1988 Salmon NF Travel Plan, except for road closures and other use restrictions controlled by gates and/or physical road closures.</td>
<td>New Travel Plan, implemented in July 2010, emphasizes closure of public lands to cross-country motorized use except for on designated routes. Mapped open motorized routes are to remain open. Some limited routes are closed seasonally or yearlong.</td>
<td>2009 Travel Plan, which emphasizes closure of public lands to cross-country motorized use except for on designated routes, expected to remain in force until approx 2020. Mapped open motorized routes are to remain open. Some limited routes are closed seasonally or yearlong.</td>
</tr>
<tr>
<td>Dispersed Recreation</td>
<td>Backcountry use, horseback riding, fishing, hunting, backpacking, camping, sightseeing, antler gathering, mountain biking, rock-hounding, sledding, ski touring, berry harvesting, mushroom harvesting allowed across SCNF.</td>
<td>Activities ongoing, current use considered light.</td>
<td>Activities foreseen to continue at current (2010) or slightly increased levels due to population growth in area.</td>
</tr>
<tr>
<td>Special Uses</td>
<td>Outfitter and Guide permitted hunting use. No other known SUPs.</td>
<td>Outfitter and Guide permitted hunting use. No other known active SUPs.</td>
<td>Outfitter and Guide permitted hunting use. Uses under permit foreseen to continue at current (2010) levels</td>
</tr>
<tr>
<td>Mining and Minerals Exploration and Extraction</td>
<td>Late 1800’s-2010’s: Intensive minerals exploration activities have occurred within the project Action Area.</td>
<td>Proposed Hughes Creek Placer Exploration Project: 1 project location on approx.10 acres on an old existing prospect road within dispersed camping corridor of MVUM route. on NFS lands. Direct surface disturbance would be approx. 1.0 acres on NFS lands.</td>
<td>No projects anticipated at this time. If Hughes Creek Placer Exploration Project shows a potential high return for mining investment, then future mining projects are foreseeable.</td>
</tr>
<tr>
<td>State (IDFG) Management of Wildlife &amp; Fish Populations</td>
<td>IDFG is the agency mandated to preserve, protect, perpetuate &amp; manage populations of wildlife and fish resources that are the property of the State of Idaho, on all lands in Idaho. Population management and harvest is set according to State of Idaho IDFG regulations. IDFG emphasis is on big-game and huntable wildlife and fish species and predator management.</td>
<td>IDFG continued management and monitoring of wildlife and fish populations. Emphasis still on big-game and huntable wildlife and fish species, and predator management. Increase of emphasis on small game, fur-bearer, game bird, and non-game species.</td>
<td>Continuation of IDFG management and monitoring of wildlife and fish populations. More increased emphasis on non-game wildlife and fish species.</td>
</tr>
<tr>
<td>Private Land Uses &amp; Activities</td>
<td>No private land associated with Action Area.</td>
<td>No private land associated with Action Area. No active projects to convert public land to private land is currently occurring.</td>
<td>If Hughes Creek Placer Exploration Project shows a potential high return for mining investment, then future mining projects are foreseeable and a project to convert public land to private land is foreseeable.</td>
</tr>
<tr>
<td>Traditional Uses-American Indian Tribes</td>
<td>Hunting, fishing, gathering, and other activities such as landscape burning occurred across landscape. After treaty signings, tribes are relegated to reservations. Landscape burning activities cease. Hunting and gathering activities on SCNF administered lands still continue.</td>
<td>Hunting of game and fish, gathering of natural resources, and religious practices according to Tribal customs on non-ceded lands provided for in Treaty Rights are currently continuing.</td>
<td>Continuation of activities according to Treaty rights.</td>
</tr>
</tbody>
</table>

**Explanation of Activities and Actions specific to the proposed project that could have effects within the project area**

Insect and Disease Outbreaks and Management: Insect and disease pathogens can be unintentionally transferred between areas by vehicles, equipment, and personnel utilized in other endeavors. Outbreaks have historically occurred on the SCNF. Past fire suppression efforts across the SCNF have resulted in conditions conducive to insect and disease outbreaks on larger scales. Factors causing these conditions include competition stress for resources by vegetation in forested vegetation areas, accumulations of dead-down woody debris that can harbor detrimental insect and disease pathogens, and a potential increase in average annual temperatures.

Noxious Weed Infestations and Management: Noxious weeds can be unintentionally transferred between areas by vehicles, equipment, and personnel utilized in other endeavors. Noxious weeds affect wildlife and sensitive plants by reducing soil-holding capability of the landscape, by contributing to erosion, by contributing to sedimentation of streams, and by out-competing desirable forage and browse vegetation species. Noxious weeds also change the susceptibility of an area to wildfire and can shorten fire-return intervals. These changes increase noxious weed survivability and acreage size and decrease desirable vegetation species’ chance of
5. Wildlife and Plant Analysis Explanation:

At any time there is a risk that implementing a proposed project and its associated activities could affect TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species and their habitats. In response to this, the proposed project is to be analyzed as to its effects to TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species. Measurement indices of effects of the proposed project would be: the probability of change in possible occurrence of TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species, and probability of change in availability of potential habitat for TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species. Potential effects of the proposed project would include direct, indirect and cumulative effects. Direct effects are caused by the action occurring at the same time and place. Indirect effects are caused by the action and occur at a later time or farther removed in distance. And, Cumulative effects result from the incremental effects of the proposed action when added to other past, present, and reasonably foreseeable future actions. The National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.), defines cumulative effects as “the effect on the environment which results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects also arise from the combined effects of interrelated and interdependent projects and actions within the project Action Area.

The proposed Hughes Creek Placer Exploration- Cliff Simonsen Project will be analyzed as to its contribution to the probability of change in possible occurrence of TES (Not Consulted On by SCNF), MIS and EO wildlife and plants, and to probability of change in availability of potential habitat for TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species in the Project Area. The project’s contribution to the probability of change in possible occurrence and probability of change in availability of potential habitat for a TES (Not Consulted On by SCNF), MIS and EO species will be analyzed relative to past, present and reasonably foreseeable future activities, treatments, and natural occurrences. The catalog of past, present, and reasonably foreseeable rates, intensity and severity of activities, actions, and occurrences in Table 2 will be used to calculate the current and reasonably foreseeable cumulative effects for the Project Area by the proposed project, and to assess the degree of risk to TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species by the proposed project.

Wildlife Issues and Effects to Consider: The following are the primary wildlife resource concerns and indicators developed by the Interdisciplinary Team Wildlife Biologist. The basis of these concerns was internal scoping from 2010.03 onward, and public scoping conducted in 2010.09.

Risk to TES wildlife and plant species will be evaluated in terms of:

- Probability of change in, availability of, and/or quality of:
  - Bare Soil
  - Water
  - Vegetation
  - Vegetation structure
  - Vegetation succession
  - Noxious weed infestation
  - Noxious insect and/or disease pathogen infestation
  - Vegetation dependent wildlife species (prey)
  - Prey dependent wildlife species (predators)
  - Human presence and disturbance
  - Human use of access routes, to TES wildlife and plant species and to components of what constitutes their habitat

Indices of measurement to compare alternatives and analyze the relative risk of cumulative effects to wildlife and sensitive plant species of the proposed project are:
6. Terrestrial TES (Not Consulted On by SCNF), MIS and EO Wildlife Species to be analyzed: Population and Habitat Descriptions

TES (Not Consulted On by SCNF) Species

Canada Lynx: (USDA For.Serv. 1991)

Habitat: Lynx are generally found in the northern boreal forest in association with snowshoe hare habitat. Hares normally make up 80% of lynx diet, or more when snowshoe density is high. Early successional forest stands with high densities of shrubs and seedlings is optimal habitat for snowshoe hare, and therefore as foraging habitat for lynx. Lynx are lighter than bobcats and have larger paws. Lynx can support twice as much weight on snow as the bobcat, allowing the lynx to manage in deeper snow. Because of this difference in snow management abilities, lynx and bobcat ranges appear to be separated by winter habitat conditions. Home ranges of lynx average 6-8 square miles, but range from 5-94 square miles. Males have larger ranges than females. Density of lynx in an area is highly dependent on prey (snowshoe hare) abundance. Most lynx densities average 1 lynx/6-10 miles squared.

Dens may consist of hollows in or under trees, in rock crevices, or in cleared areas under dense thickets or low growing trees. Mature forest stands are used for denning, cover for kittens, and as travel corridors. Breeding occurs from mid-March to early April. Denning and birth occurs in late May to early June.

Management Implications: The historical range of the lynx in the Intermountain Region has dwindled due to hunting pressure, predator control, and loss of unroaded forested areas. The main threats to lynx populations are forest fragmentation from timber

The TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species analysis for The Project includes literature and database review, and an inventory of/for TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species presence and/or habitat. Public notice of the project and its activities, and the opportunity to comment on such, was given. Public comments were received during scoping for this project. Comments pertinent to the TES (Not Consulted On by SCNF), MIS and EO wildlife and plant species analysis of The Project have been addressed in this report.
harvest and human development, causing loss of denning habitat and disruption of travel corridors. Lynx are vulnerable to heavy trapping pressure during the low period of their population cycle, and road development may increase trapping activities. Management of forest stands for snowshoe hare is beneficial to lynx. Prey abundance directly affects production and survival of young. Prey abundance affects lynx populations mainly through recruitment. When hare numbers are low, fewer female lynx breed, litters are smaller, and survival of lynx kits is lower than when hare numbers are high. Areas of 20–25 acres should be managed for hares. Dense stands of conifers with crowns that intersect at, and just above, mean snow depths should be maintained. Stands of mature forest near snowshoe habitat should be available for denning and security cover.

The analysis of effects from proposed projects on NFS lands on Canada Lynx is guided by the 2000 Canada Lynx Conservation Assessment and Strategy (LCAS 2000), the 2005 Revised Canada Lynx Conservation Agreement (RCLA 2005), the 2006 Occupied Mapped Habitat Amendment (the Amendment 2006) to the RCLA, and the Northern Rockies Lynx Management Direction (NRLMD 2007) amendment to the Salmon and the Challis Forest Plans. The 2000 LCAS contained Project Planning Standards and Guidelines for proposed projects. In 2000.04 the local Lynx Level 1 Team analyzed impacts on lynx from on-going SCNF forest management activities/existing projects (USDAFS 2000). Determinations of Effect on lynx for each type of activity/project were assigned at that time. The 2005 RCLA updated and superseded the project planning standards and guides promulgated in the LCAS. The 2006 Amendment to the 2005 RCLA designated that, since there have not been at least 2 genetically verified lynx observations or records on the SCNF since 1999 and that there has not been any evidence of lynx reproduction on the SCNF, the Salmon-Challis NF is currently considered to be a forest of Un-occupied Secondary Lynx Habitat (USDIFWS 2007.06.12). By definition, the Role in Recovery of Secondary Lynx Habitat is Unclear. Secondary Habitat may possibly be unable to sustain lynx populations, or actions may have caused local extirpation of lynx without re-colonization. But, Secondary Habitat may enable successful dispersal of lynx between populations or sub-populations. The 2007 NRLMD (ROD page 29) provided guidance on management and monitoring of potential lynx habitat on Un-occupied Secondary Lynx Habitat Forests. It states “Those National Forests (Salmon-Challis in Region 4), that presently are un-occupied by Canada lynx should consider the management direction that is now incorporated into their Forest Plans when developing projects, but are not required to follow the management direction until such time as they are occupied by Canada lynx.”

2007 NRLMD and 2000 Canada Lynx Conservation Assessment and Strategy (LCAS) Project Planning Standards for Minerals Projects:

- Applicable Conservation Guidelines and Measures for the Project.
  1. Develop a reclamation plan (vegetation rehabilitation) for minerals (mining) projects

The SCNF is presently not considered to be “occupied” by lynx per a US Fish and Wildlife Service (USFWS) message to the Salmon-Challis National Forest (SCNF) which was received on 2007.06.12. The SCNF has been advised by the USFWS that it is not required to consult under section 7 of the ESA for effects to Canada lynx from actions proposed by the SCNF from 2007.06.12 until new information on lynx presence on the SCNF becomes available (USDIFWS 2007.06.12). New information on Canada lynx presence on the SCNF is considered to be the documentation of 2 genetically verifiable detections of Canada lynx, or proof of Canada lynx reproduction, occurring on SCNF administered lands (USDIFWS 2007.06.12). No change in this status of consultation requirements has been identified to date because there has been no genetically verified detection of Canada lynx on SCNF administered lands from 2007.06.12 to the current date.

In 2010.01 the SCNF adopted a new Mapped Lynx Habitat and Lynx Analysis Unit guidance document and maps. All further analyses of project effects on Canada Lynx on the SCNF are to be prepared under direction of this document and maps, per direction of SCNF Biologist Bruce Smith.

Monitoring: Survey routes for presence/absence of North American Lynx via Hair Snare Transects were established and surveys conducted in 2001 for the Salmon-Challis National Forest utilizing national protocols. Winter Mammal Track Surveys were run from 2003-2007 on selected routes. The Northern Rockies Lynx Management Direction (U.S. Forest Service 2007) has determined that while lands within the Salmon-Challis National Forest are considered unoccupied by lynx, annual monitoring will be completed to record their potential occurrence. Winter Lynx Track Surveys have been run from 2009-2011 on the SCNF to record the potential occurrence of lynx. Incidental sightings of lynx are verified by Zone Biologists, technicians, and/or other qualified personnel as time constraints and quality of sighting data permit. Determination of presence/absence of species in areas of the SCNF are inferred by surveys and incidental sightings, but must be verified by genetic testing of hair, blood, body fluids, or body parts located as part of the survey or follow-up checking of incidental sightings. At this time, the USFS has agreed to work with the USFWS to develop and complete an acceptable protocol to survey currently unoccupied lynx habitat in secondary areas.

7. Analysis of the Project- Effects to TES (Not Consulted On by SCNF), MIS and EO Wildlife and Plant Species:

Hughes Creek Placer Exploration- Cliff Simonsen Project

Effects associated with the project would modify the Action Area from its current condition. Proposed project actions and activities that could potentially affect TES (non-consulted on), MIS and EO wildlife and plant resources, include: 1) use of motorized vehicles/equipment on primary access route to/from Project location, 2) use of motorized vehicles/equipment on an old existing prospecting access route/road that is within the RHCA and fords Hughes Creek to/from the Project location and the primary access route, 3) human presence during project activities at project location, 4) human temporary habitation and waste generation activities at campsite within project location, 5) presence of mechanical vehicles with fuel, mechanical equipment with fuel, and fuel storage itself within Hughes Creek RHCA 6) noise associated with various activities at project test site locations, 7) clearing of vegetation from test site locations, 8) mechanical digging of exploration trenches at test site locations, 9) presence of a pump within Hughes Creek RHCA and pumping of water from Hughes Creek, 10) disposal of wastewater after usage in processing of materials at test sites, 11) disposal of waste material after processing at test sites, and 12) reclamation of test sites, camp site, and old prospecting route/road. Estimated duration of effects of the proposed project: 1 year.

Direct Effects: Direct effects associated with the proposed project within/into the Action Area would be to: 1) increase the amount of bare soil/ground, 2) change the amount and quality of water in the withdrawal creek and the quality of water-influenced (riparian) habitat, 3) decrease the amount of vegetation covering the soil/ground, 4) decrease vegetation availability to wildlife, 5) decrease
vegetative structure availability to wildlife, 6) increase the potential for transportation of noxious weeds, 7) increase the potential for transportation of insect and disease pathogens, 8) decrease the amount of presence of prey species, 9) decrease the amount of presence of predator species, 10) increase the amount and time of human presence, and 11) increase the amount of motorized vehicle usage and human presence on the access route, within/to the project area.

Direct effects could have the following negative/neutral/positive effect on wildlife and plant species and/or their habitat in the Action Area:

- Positive effect on bare soil wildlife and plant species
- Neutral but potential negative effect on slow-moving water, stationary water, and/or riparian wildlife and plant species
- Neutral but potential negative effect on fast-flowing water wildlife species
- Negative effect (minor) on vegetation-dependent species
- Negative effect (minor) on vegetative-structure dependent wildlife
- Negative effect (minor) on prey species
- Negative effect (minor) on predator species
- No effect on a species-specific habitat
- Negative effect from level of human presence
- Negative effect (minor) from level of human usage of access route

Indirect Effects: Indirect effects associated with the proposed project within/into the Project Area could be to: 1) increase the potential for, and/or amounts of, insect and disease pathogens, and 2) increase the potential for, and/or amounts of, noxious weeds, within/to the project area.

Indirect effects could have the following negative/neutral/positive impact on wildlife and plant species and/or their habitat in the project area:

- Negative effect on bare soil wildlife and plant species
- Negative effect on slow-moving water, stationary water, and/or riparian wildlife and plant species
- Negative effect on fast-flowing water wildlife species
- Negative effect on vegetation-dependent species
- Neutral to Positive effect on vegetative-structure dependent wildlife
- Negative effect (short-term) on prey species
- Negative effect (short-term) on predator species
- No effect on a species-specific habitat
- Neutral effect from level of human presence
- Negative effect from level of human presence on access route

### 8. Analysis of Impacts from the Project on TES (Not Consulted On by SCNF), MIS and EO Wildlife Species

#### Table 3. Species Inventories and Surveys within, or in vicinity of, Project Area

<table>
<thead>
<tr>
<th>Species</th>
<th>Habitat Survey/Inventory Conducted</th>
<th>Species Presence/Absence Survey/Inventory Conducted</th>
<th>Species Present or Not Detected: Determined by observation, survey, documented occurrence within a Reasonable Travel Distance to, or presence/absence of suitable habitat within, the Action Area</th>
<th>Species Presence in Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada Lynx</td>
<td>2010</td>
<td>No</td>
<td>Not detected- No historic detections since 1974 within a Reasonable Travel Distance (RTD) to Action Area. No genetically verified sightings within RTD.</td>
<td>Presumed absent.</td>
</tr>
<tr>
<td>MIS- Pileated Woodpecker</td>
<td>2010.07</td>
<td>USFS 2007. PIWO Calling survey</td>
<td>Multiple sightings 2007 within and in vicinity of Action Area. Habitat is present.</td>
<td>Present</td>
</tr>
<tr>
<td>MIS- Sage grouse</td>
<td>2010.07</td>
<td>No</td>
<td>Not Detected. Habitat for this species is Considered not present in Action Area.</td>
<td>Absent</td>
</tr>
<tr>
<td>MIS- Columbia spotted frog</td>
<td>2010.07</td>
<td>USFS 1994, 2004-2008, 2010 egg-mass surveys</td>
<td>Detected 1994 2004-2008, and 2010 w/in Reasonable Travel Distance to Action Area. No Detections in 1994 w/in Action Area. Habitat for this species is considered present in Action Area and at Project Sites. Disturbance impacts are considered to extend far enough to disturb this species if it was present in Action Area.</td>
<td>Unknown</td>
</tr>
<tr>
<td>EO- MBTA Species</td>
<td>2010.07</td>
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</tr>
<tr>
<td>LOCON</td>
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<tr>
<td>Hawk, sharp-shinned</td>
<td></td>
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<tr>
<td>Woodpecker, Lewis’</td>
<td></td>
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<tr>
<td>Sapsucker, Williamson’s</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Woodpecker, black-</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>backed</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Creeper, brown</td>
<td></td>
<td></td>
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<tr>
<td>Thrush, varied</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Warbler, Townsend’s</td>
<td></td>
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<td></td>
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<tr>
<td>Tanager, western</td>
<td></td>
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<tr>
<td>PPINE</td>
<td></td>
<td></td>
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<tr>
<td>Owl, flammulated</td>
<td></td>
<td></td>
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<tr>
<td>Woodpecker, white-</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>headed</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RIPARIAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goldeneye, Barrow’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merganser, hooded</td>
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<tr>
<td>Grouse, blue</td>
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<tr>
<td>Quail, mountain</td>
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<tr>
<td>Hummingbird, black-</td>
<td></td>
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<tr>
<td>chinned</td>
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<tr>
<td>Hummingbird, calliope</td>
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<tr>
<td>Hummingbird, rufous</td>
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<td>Flycatcher, dusky</td>
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<td>Magpie, black-billed</td>
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<tr>
<td>Dipper, American</td>
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<td></td>
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<tr>
<td>Warbler, yellow</td>
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<td></td>
</tr>
<tr>
<td>Warbler, MacGillvray’s</td>
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</table>

<table>
<thead>
<tr>
<th>Hunting Heritage Sp</th>
<th>2010.07</th>
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</tr>
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<tbody>
<tr>
<td>Shiras Moose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rocky Mountain Elk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mule Deer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronghorn Antelope</td>
<td></td>
<td></td>
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<tr>
<td>Bighorn Sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Goat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American marten</td>
<td></td>
<td></td>
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<tr>
<td>Bobcat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Lion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Bear</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 4. Presence of Species Habitat in Project Area

<table>
<thead>
<tr>
<th>Species</th>
<th>Reproduction (acres)</th>
<th>Foraging (acres)</th>
<th>Migration/Dispersal (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada Lynx</td>
<td>0 acres</td>
<td>0 acres</td>
<td>550 acres</td>
</tr>
<tr>
<td>Pileated woodpecker</td>
<td>150 acres</td>
<td>520 acres</td>
<td>520 acres</td>
</tr>
<tr>
<td>Sage grouse</td>
<td>0 acres</td>
<td>0 acres</td>
<td>0 acres</td>
</tr>
<tr>
<td>Columbia spotted frog</td>
<td>30 acres</td>
<td>550 acres</td>
<td>520 acres</td>
</tr>
<tr>
<td>MBTA Species</td>
<td>450 acres LOCON habitat</td>
<td>450 acres LOCON habitat</td>
<td>450 acres LOCON habitat</td>
</tr>
<tr>
<td></td>
<td>70 acres PPINE habitat</td>
<td>70 acres PPINE habitat</td>
<td>70 acres PPINE habitat</td>
</tr>
<tr>
<td></td>
<td>30 acres RIPARIAN habitat</td>
<td>30 acres RIPARIAN habitat</td>
<td>30 acres RIPARIAN habitat</td>
</tr>
<tr>
<td>Hunting Heritage Sp</td>
<td>30 acres- Shiras Moose</td>
<td>30 acres- Shiras Moose</td>
<td>550 acres- Shiras Moose</td>
</tr>
<tr>
<td></td>
<td>70 acres- Rocky Mountain Elk</td>
<td>550 acres- Rocky Mountain Elk</td>
<td>550 acres- Rocky Mountain Elk</td>
</tr>
<tr>
<td></td>
<td>520 acres- Mule Deer</td>
<td>550 acres- Mule Deer</td>
<td>550 acres- Mule Deer</td>
</tr>
<tr>
<td></td>
<td>0 acres- Pronghorn Antelope</td>
<td>0 acres- Pronghorn Antelope</td>
<td>0 acres- Pronghorn Antelope</td>
</tr>
<tr>
<td></td>
<td>0 acres- Bighorn Sheep</td>
<td>0 acres- Bighorn Sheep</td>
<td>0 acres- Bighorn Sheep</td>
</tr>
</tbody>
</table>
9a. TES (Not Consulted On by SCNF) Species: Canada Lynx:

**Management Implications:** The Salmon-Challis NF is currently considered to be a national forest comprised of un-occupied, but suitable, lynx habitat, since there have not been at least 2 genetically verified lynx observations or records on the SCNF since 1999 and that there has not been any evidence of lynx reproduction on the SCNF (USDFWS 2007.06.12).

The analysis of effects from the proposed project on Canada Lynx is guided by the 2000 Canada Lynx Conservation Assessment and Strategy (LCAS 2000), the 2005 Revised Canada Lynx Conservation Agreement (RCLA 2005), the 2006 Occupied Mapped Habitat Amendment (the Amendment2006) to the RCLA, and the Northern Rockies Lynx Management Direction (NRLMD 2007) amendment to the Salmon and the Challis Forest Plans. The 2000 LCAS contains Project Planning Standards and Guidelines for proposed projects. The 2005 RCLA updates and supersedes the project planning standards and guides promulgated in the LCAS. The 2006 Amendment to the 2005 RCLA designates that, since there have not been at least 2 genetically verified lynx observations or records on the SCNF since 1999 and that there has not been any evidence of lynx reproduction on the SCNF, the Salmon-Challis NF is currently considered to be a forest of Un-occupied Secondary Lynx Habitat. By definition, the Role in Recovery of Secondary Lynx Habitat is Unclear. Secondary Habitat may possibly be unable to sustain lynx populations, or actions may have caused local extirpation of lynx without re-colonization. But, Secondary Habitat may enable successful dispersal of lynx between populations or sub-populations. The 2007 NRLMD (ROD page 29) provides guidance on management and monitoring of potential lynx habitat on Un-occupied Secondary Lynx Habitat Forests. It states “Those National Forests (Salmon-Challis in Region 4), that presently are un-occupied by Canada lynx should consider the management direction that is now incorporated into their Forest Plans when developing projects, but are not required to follow the management direction until such time as they are occupied by Canada lynx.”

2007 NRLMD and 2000 Canada Lynx Conservation Assessment and Strategy (LCAS) Project Planning Standards for Minerals Projects:

- Applicable Conservation Guidelines and Measures for the Project.
  1. Develop a reclamation plan (vegetation rehabilitation) for minerals (mining) projects

Per a US Fish and Wildlife Service (USFWS) message to the Salmon-Challis National Forest (SCNF) which was received on 2007.06.12, the SCNF is presently not considered to be “occupied” by lynx. The SCNF is not required to consult under section 7 of the ESA for effects to lynx from actions proposed by the SCNF from 2007.06.12 until new information on lynx presence on the SCNF becomes available (USDFWS 2007.06.12).

In 2000.04 the Lynx Level 1 Team analyzed impacts on lynx from on-going SCNF forest management activities/existing projects (USDAFS 2000). Determinations of Effect on lynx for each type of activity/project were assigned.

In 2010.01 the SCNF adopted a new Mapped Lynx Habitat and Lynx Analysis Unit guidance document and maps. All further analyses of project effects on Canada Lynx on the SCNF are to be prepared under direction of this document and maps, per direction of SCNF Biologist Bruce Smith.

**Monitoring:** Survey routes for presence/absence of North American Lynx via Hair Snare Transects were established and surveys conducted in 2001 for the Salmon-Challis National Forest utilizing national protocols. Winter Mammal Track Surveys were run from 2003-2007 on selected routes. Winter Lynx Track Surveys have been run in 2010 along the Salmon Ridge Road (FR020). Incidental sightings of lynx are verified by Zone Biologists, technicians, and/or other qualified personnel as time constraints and quality of sighting data permit. Determination of presence/absence of species in areas of the SCNF are inferred by surveys and incidental sightings, but must be verified by genetic testing of hair, blood, body fluids, or body parts located as part of the survey or follow-up checking of incidental sightings. At this time, the USFS has agreed to work with the USFWS to develop and complete an acceptable protocol to survey currently unoccupied lynx habitat in secondary areas.

**Proposed Project and Project Area:** The Project Action Area is not located within a Lynx Analysis Unit (LAU). The Action Area does not encompass mapped functioning identified reproductive, foraging, or migration/dispersal habitat for lynx. The access route to the Action area is not located within an LAU or within mapped lynx habitat.

Table 4: Baseline Condition of Mapped Lynx Habitat and/or LAU surrounding Project Action Area

<table>
<thead>
<tr>
<th>LAU</th>
<th>Habitat Feature</th>
<th>Status in LAU</th>
<th>Compliance with LMD</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable 0 acres of lynx habitat</td>
<td>% Unsuitable Habitat in LAU (wildfire and Management caused changes)</td>
<td>0 acres veg/fuels mgmt 0 acres wildfire 0 acres total</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>% denning habitat in LAU</td>
<td>0 acres of DOG stands</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Change in LAU caused by management in Last 10 years</td>
<td>0 acres veg/fuels mgmt</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habitat Connectivity</td>
<td>-</td>
<td>Yes</td>
<td>Connectivity more broken due to lower elevation, and dryer habitat south of Action Area making forested habitat minimally suitable as migration/dispersal habitat for lynx.</td>
<td></td>
</tr>
</tbody>
</table>

No lynx occurrences have been genetically verified on the Salmon-Challis NF. 5 possible lynx historical occurrences have been formally documented over the past 60 years within a reasonable travel distance to the Project Area. The Salmon-Challis NF is currently considered to be un-occupied secondary lynx habitat.
**Effects of Proposed Project:** The proposed project will not affect an LAU. The proposed project will not directly/indirectly/cumulatively affect any acreage of mapped functioning identified lynx habitat. It will not affect any known lynx denning areas, or any reproductive, summer foraging, or winter foraging habitat. The Action Area might be used by lynx as migration habitat to get from 1 area of identified lynx habitat to another, but the chance of use is minimal. The LCAS (USDFWS and USDAFS 2000) said that the main risk factors associated with minerals and energy development is related to the potential for plowed roads (in winter) to provide access for lynx competitors. The project proposal has not identified any activities to be conducted during winter. In 2000.04 the Canada Lynx Level 1 Team analyzed impacts on lynx from on-going forest management activities, including mining activities. The Team determined that small scale (less than 5 ac) plans of operation for mining activities, with no winter activity, were determined to have no effect on lynx. Project activities will not affect individual lynx, since lynx are not known to be in the area. Long-term and/or cumulative effects on lynx, and lynx habitat, from the proposed project will be non-existent. Lynx population viability is determined to not be at risk. The proposed project will have **No Effect** on Canada Lynx.

<table>
<thead>
<tr>
<th>Species</th>
<th>Probability of Occurrence</th>
<th>Probability of Effect</th>
<th>Determination of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada Lynx (LT)</td>
<td>No</td>
<td>None</td>
<td>NE</td>
</tr>
</tbody>
</table>

Determination of Effect to TES (Not Consulted on by SCNF) Species:
- NE = No Effect,
- BE = Beneficial Effect,
- NLAA = May Effect- Not Likely to Adversely Affect,
  - * Requires written concurrence from USFWS,
- LAA = May Effect- Likely to Adversely Affect,
  - ** Considered a trigger for formal consultation with USFWS
  - ** Requires written concurrence from USFWS.
  - ** Categorical exclusions are not appropriate if this is the determination.

**Probability of Occurrence on Species or Habitat**
- No: No evidence of, or potential for, species or habitat in project Action Area.
- Yes: Evidence of, or potential for, species or habitat in project Action Area.

**Probability of Effect on Species and Habitat**
- None: No effect on species or habitat.
- Low: Negligible effects (direct or indirect) on species or habitat. Activity controlled by seasonal or spatial stipulations. No cumulative effects are expected.
- Moderate: Possible effects on habitat or population. Effects can not be completely mitigated by modifying activity. Effects are manageable through special management actions. Cumulative effects possible. No irreversible or irretrievable effects expected.
- High: Effects on species or habitat is likely to occur. Cumulative effects probable. Irreversible and irretrievable effects probable.

**9b. Management Indicator (MIS) Species: pileated woodpecker, greater sage-grouse, Columbia spotted frog**

**Pileated woodpecker** – Pileated woodpeckers are the SCNF Management Indicator Species (MIS) for forested habitat.

**Biological Requirements (Purvine 2009):** Pileated woodpeckers are associated with mature forests containing large diameter snags (>20") that are used for nesting (Bull 1987). Pileated woodpecker is a snag-dependent species. They will use coniferous, deciduous, or mixed forests, and are often found in mature aspen stands. Their diet consists of insects, especially carpenter ants and wood-boring beetles, and will forage frequently on insects found in downed logs greater than 10" in diameter and snags or live trees greater than 20" in diameter (Bull 1987). Pileated woodpeckers are non-migratory and a pair will defend their territory year round (Bull and Jackson 1995).

The removal of snags and downed logs for fuel wood, resulting from motorized access, has the potential to affect pileated woodpecker habitat. A strategy to deal with the effects of motorized access is to close roads in areas that are deficient in snags and where cutting snags for firewood contributes to low snag density (Wisdom et al. 2000). Since about 2000, bark beetles and landscape level fires have contributed to the amount of dead and downed trees across the forest.

**Management Implications:** The Salmon-Challis National Forest contains approximately 2,542,035 acres of the coniferous habitat/community type. Pileated woodpeckers are threatened by the clearing of forests without snag retention. Road construction/reconstruction increases the accessibility of firewood harvesters to snags. Temporary road construction/reconstruction/opening increases the potential for accessibility of firewood harvesters to snags. Temporary roads increase the potential for loss of snags and “cavity trees” to firewood harvesters, and decrease the potential for retention of snags and “leave trees” for cavity dependent wildlife.

**Monitoring, Trend, and Potential Occurrence (Purvine 2009):** Surveys for pileated woodpeckers have occurred across the Salmon-Challis NF since the species was designated as a MIS in 2004. Sufficient data does not currently exist to establish a forest-wide base line or determine a long-term trend for this species; this data will be accumulated as transects are monitored over time. Data collected from 2004 through 2007 has been analyzed to show an interim trend (Figure1) (USFS 2008). USGS Breeding Birds Survey data for Idaho, using trend estimates, shows a trend of 2.0% from 1966 to 2007 and -0.9% from 1980 to 2007 for pileated woodpeckers. The data for Idaho are very imprecise and would not detect a 5% per year change (Sauer et al. 2008).

The number of acres affected by mountain pine and Douglas-fir beetle infestations has greatly increased over the last decade, which has increased the amount of available foraging and nesting substrate. The Salmon-Challis National Forest had 520,641 acres burned by wildfire between 2000 and 2003, which also has provided foraging and nesting substrate for pileated woodpeckers. The acres burned by wildfire in the past four years of survey data collection are as follows: 2004–4,916; 2005–33,115; 2006–135,208, and 2007–248,145 (CIID 2007).
Greater Sage Grouse – Sage grouse is the SCNF MIS for the sagebrush habitat/community type.

Biological Requirements (Purvine 2009): Sage grouse are a sagebrush obligate species that are found in low and big sagebrush in foothills, shrub lands, and mountain slopes. They also occur in mosaics of sagebrush and grasslands, meadows, and aspen. Sage grouse lack a muscular gizzard, so their diet consists of soft foods. The primary year-round food is sagebrush (leaves and buds), and forbs during the summers. Insects such as beetles, ants, and grasshoppers, are a very important seasonal part of their diet, especially for chicks (Paige and Ritter 1999).

Sage grouse have specific seasonal habitat needs for breeding, nesting, brood rearing, and wintering. In the spring, males gather at traditional breeding sites called leks, which are generally open areas surrounded by sagebrush, and attract females through intricate displays. Sage grouse nest primarily under sagebrush that has more canopy, ground, and lateral cover than surrounding sagebrush. Grass height and cover is also important for camouflage of nests. It is thought that a residual grass cover averaging 7 inches (18 cm) reduces nest predation by providing scent, visual, and physical barriers (Connelly et al. 2000). Brood rearing habitat is generally somewhat open stands of sagebrush with good grass and forb understory. Later in the summer, sage grouse utilize more mesic sites with a good forb component. Winter habitat is in big sagebrush stands with good canopy cover and taller sagebrush than surrounding habitat (Connelly et al. 2000).

Management Implications: The Salmon-Challis National Forest contains approximately 1,228,235 acres of the sagebrush steppe habitat/community type. Motorized access has the potential to affect sage-grouse through direct disturbance and harassment on leks or winter concentration areas (Wisdom et al. 2000). One study found that nest success was not decreased near two-track and maintained gravel roads (Kuipers 2004). High traffic on roads associated with oil and gas developments were found to disturb breeding hens (Lyon 2000). Broods were often observed foraging along roadsides that had low traffic densities (Holloran 1999).

Monitoring, Trend, and Potential Occurrence (Purvine 2009): The sage-grouse has a has a global ranking of G4; apparently secure, uncommon but not rare, some cause for long-term concern due to declines or other factors, and a state ranking of S2; imperiled, at risk because of restricted range, few populations, rapidly declining numbers, or other factors that make it vulnerable to range-wide extinction or extirpation. In Idaho, sage-grouse populations declined at an overall rate of 1.5% per year from 1965–2003. From 1965 to 1984, the population declined at an average rate of 3.0%; from 1985–2003 the population had an annual change of 0.1% per year (IDFG 2005).

Monitoring of greater sage-grouse populations occurs in cooperation with the Idaho Department of Fish and Game (IDFG) and the Bureau of Land Management (BLM). Monitoring is performed by counting the number of male birds occupying leks along an establishedlek route in the early spring. Most of thelek areas are located on BLM land; one route is located on the Salmon-Challis NF. Data used to determine trend for the Salmon-Challis MIS were derived from the Antelope Creek, Upper Big Lost, Little Lost, and Upper Birch Creek lek routes in the Upper Snake region and Upper Lemhi, Leadore East, Leadore West, Lower Lemhi, Lower East Pahsimeroi, Lower West Pahsimeroi, Little Hat Creek, and Spring Gulch, Dry Gulch, and Carlson Cabin lek routes in the Salmon Region.

Figure 1. Average Number of Pileated Woodpeckers per Route, 2004-2008
Population numbers and lek activity has been very cyclic over the years throughout the region. Monitoring data generally indicates a continued increasing trend since 1999. Snow conditions during 2008 made accessing many of the leks during peak breeding times difficult or impossible. Exact estimates of trend are difficult to make due to missing data, and variable monitoring and collection methods from year to year. The figure showing trend was derived by averaging the peak number of males on lek routes and dividing that by the number of routes surveyed by year.

Efforts have been made in recent years to identify guidelines as key indicators of adequate sage-grouse habitat (Connelly et al. 2000). These habitat indicators focus on sagebrush heights and canopy cover within all sage-grouse life stage habitats and herbaceous heights and canopy cover primarily on breeding habitat. Appropriate sage-grouse summer and winter habitat conditions are widespread across the Forest. Upland sagebrush/grassland community types are generally in good condition with static or improving trends supporting adequate herbaceous and sagebrush cover primarily due to the efforts made in improved livestock management over the last several decades. Summer and winter habitat conditions are not at present considered limiting sage-grouse occupancy or productivity.

![Figure 2. Average Number of Male Sage-grouse per Number of Lek Routes, 1999-2008](image)

**Project area:** The Project Area contains 0 acres of the sagebrush habitat/community type. The proposed project has the potential to directly/indirectly/cumulatively impact 0 acres of sage grouse habitat through habitat altering activities, noise and/or human presence.

**Impacts of Proposed Project:** 0 acres of sagebrush habitat community type will be directly/indirectly/cumulatively impacted by the Project. The Determination of Impact of the proposed project is No Impact to greater sage grouse.

**Columbia Spotted Frog (Rana luteiventris) (RALU):** Columbia spotted frog is the SCNF MIS for the riparian habitat community type.

**Biological Requirements (Purvine 2009):** The spotted frog is found from sea level to about 10,000 feet in elevation (3,000 m). Spotted frogs are usually found near permanent, quiet water such as marshy areas, streams, springs, and wet meadows. They breed early in the spring when water is sufficiently thawed. Eggs are laid in ponds or still water in clusters of several egg masses. Hatching and tadpole development are temperature dependent and vary based upon elevation. Spotted frogs will disperse away from permanent water in forest and shrubland habitat, if water, such as seeps, is available (Gomez 1994). Spotted frogs appear to prefer areas of thick algae and emergent vegetation, but may use sunken, dead, or decaying vegetation for cover. The frog is an opportunistic feeder eating a wide variety of insects as well as different mollusks, crustaceans, and arachnids. Larvae eat algae, organic debris, plant material, and minute water-borne organisms (Groves et al. 1997). After breeding spotted frog may move considerable distances from water into mixed conifer and sub-alpine forest, grassland, or brushland of sage or rabbitbrush. They hibernate in the winter near springs where water does not freeze and is renewed constantly, and in muddy substrate in rivers and ponds. Spotted frogs take two to six years to reach maturity, and can live as long as 13 years (Gomez 1994).

**Management Implications:** The Salmon-Challis National Forest contains approximately 60,546 acres of the riparian habitat/community type. Severe wildfires that result in loss of canopy cover in RIPARIAN, MARSH and other forested areas could have several negative effects on spotted frogs. Water temperatures could increase resulting in temperatures not suited for egg development. Dispersal among established sites would be more difficult, resulting in increased population fragmentation and likelihood of localized extinctions. Prescribed burns in early spring could disturb breeding activities (Gomez 1994). Motorized access has the potential to affect spotted frogs through direct mortality (Gomez 1994, Pilliod et al. 2003, Cushman 2006, Fahrig et al. 1995) Roads may bisect migration or dispersal corridors and frogs are vulnerable to being hit while crossing, although traffic densities are often low at night, when frogs usually travel (Pilliod et al. 2003).

**Monitoring, Trend, and Potential Occurrence (Purvine 2009):** The spotted frog has a global ranking of G4 and a state ranking of S3/S4, which indicates a range of uncertainty about the status, between apparently secure, uncommon but not rare, some cause for long-term concern due to declines or other factors; and vulnerable in the nation or state/province due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.

Spotted frogs have been observed on all Rangers Districts on the S-CNF, most typically in association with vernal pools. Permanent monitoring points were established across the Salmon-Challis NF in 2004. Data that is collected includes egg mass numbers and frog age counts. Data has been collected each year on most Ranger Districts since 2004. In 2007, 15 spotted frog sites were monitored and 30 surveys completed on four Ranger Districts. The number of sites surveyed has varied, especially in 2006 and 2007. The number of
Although there is much data concerning presence of Columbia spotted frogs across the Forest and suitable sites have been identified and surveyed for long term monitoring, sufficient monitoring data necessary to indicate trend have not yet been accumulated. Since the establishment of Riparian Habitat Conservation Areas (RHCAs) across the Forest and implementation of PACFish/INFish standards, which provide riparian buffer strips, riparian areas are generally considered to be in an upward trend. Because of this apparent upward trend in source habitat for and the extensive occurrence record of this species across the Forest, the population trend for Columbia spotted frogs on the Salmon-Challis NF is conservatively estimated to be stable. Recent wildfires, especially during FY2000, burned during conditions severe enough to allow stand replacing event to occur in some forested deciduous and coniferous riparian areas. However, the amount of riparian acres burned is less than one percent of the available acres on the Forest and is not considered a factor in overall habitat condition or trend for this species. Future monitoring may provide opportunities to assess fire effects.

**Figure 3. Average Number of Spotted Frog Egg Masses per Surveyed Acre, 2004-2008**

**Project Area:** RALU are known to have been present within a Reasonable Travel Distance to the Action Area in 1994, 2004-2008 and 2010. But, at this time the project site location has not been extensively surveyed for the presence of RALU. RALU should probably be considered as present, but undetected, within the Action Area and the Project Sites due to presence of favorable habitat, presence within a Reasonable Travel Distance, and no physical barriers to migration/ dispersal of RALU into the Action Area. No known reproductive or egg- mass sites have been located within the Action Area. Portions of the Action Area are suitable be used as either reproductive, foraging and/or migration/ dispersal habitat.

The Action Area contains approximately 30 acres of the riparian habitat/community type represented by perennial stream riparian habitat, and ephemeral stream draw riparian habitat (RIPARIAN) and 520 acres of forested habitat (PPINE and LOCON). Since RALU have been documented to move considerable distances from water into mixed conifer and sub-alpine forest after breeding, the Action Area is estimated to contain approximately 30 acres of spotted frog reproductive and foraging habitat, and 520 acres of foraging and/or migration/ dispersal habitat. There are 0 known spotted frog reproductive sites, which could be labeled as crucial habitat, within the Project Area. No surveys for presence/absence of RALU were conducted within the Action Area, but a RALU presence/absence survey was conducted in the vicinity of the Action Area in 1994, and RALU egg-mass surveys have been conducted within a Reasonable Travel Distance to the Action Area in 1994, and from 2004-1010. RALU egg-masses have been detected almost every year of those surveys.

**Impacts of Proposed Project:** Habitat for this species is considered present in the Action Area and at the Project Sites. Project implementation disturbance impacts are considered to extend far enough to disturb this species, if species is present. The Proposed Project will directly impact approximately 1-2 acres of habitat potentially conducive to supporting RALU within the 30 acres of RIPARIAN habitat. This would occur at the proposed disturbance sites, through activities associated with transport of vehicles and equipment, campsite and vehicle parking, clearing of test trench sites, digging of trench test sites, setting up and running of water pumps, and reclamation of test sites. At this time the disturbance site locations have not been extensively surveyed for the presence of RALU, but the proposed project will not impact any known RALU reproduction or egg-mass sites. Direct Impacts would be minor if RALU populations did exist at those sites, since reproductive activities have ceased, egg-masses have hatched, and individual frogs could move away from the disturbance sites. The Project could indirectly impact approximately 10 acres of habitat potentially conducive to supporting RALU through introduction of invasive plant species on vehicles and equipment, mishaps with fuel and equipment storage, and/or fuel mishaps at water drafting pump sites. Elevated levels of human presence, human caused noise, water-pump noise and/or water-pump vibration disturbance at the project sites during project activities might cause RALU to avoid the area, but should be short-term and confined to the immediate area surrounding the project sites. Elevated human presence and noise/vibration disturbance impacts will return to pre-project levels upon completion of project.

The chances of Direct Impacts of the project should be minor and generally negligible to RALU. The chances of Direct and/or Indirect Impacts of the project to potential RALU habitat, with incorporation of Project Design Features developed to prevent introduction and/or spread of weeds in the Action Area, would be further reduced, relatively minor and negligible. The chances of Cumulative Impacts to potential RALU populations and habitat are low.

Proposed project actions will not cause long term and/or cumulative adverse impacts to the RALU population. The project will not impact the long-term viability of the RALU population on the SCNF and/or within the State of Idaho. RALU population viability will not be at risk. The project is unlikely to impact the continued existence of the RALU population and/or the quality and ability of the available habitat to support RALU. With adherence to the Project Design Features that were developed to address possible environmental impacts, a finding of May Impact, but Not Likely to Adversely Impact has been determined for the proposed project on Columbia Spotted Frog.
9c. Executive Order Wildlife

Migratory Bird Treaty Act (MBTA) Species:

Management Implications: The Salmon-Challis National Forest contains approximately 4.3 million acres of habitat/community types conducive to supporting MBTA species. Impacts to MBTA species and their habitat are analyzed according to criteria set in the Idaho Bird Conservation Plan (IBCP)/ID PIF 2000). The IBCP lists Birds of Management Concern (BMC) that are prioritized based on a number of factors. High Priority Breeding Birds are those species in the IBCP that scored high in the Idaho Partners In Flight (IPIF) prioritization process, which indicates a high vulnerability of their populations. The IBCP, rather than taking only a species-based approach to analysis of project impacts, uses a prioritization system based on threats to both birds and threats to habitat types. A complete explanation of the rationale of this ranking of priority species is found in the Idaho Bird Conservation Plan, Version 1.0, pages 12-13. For the purposes of this analysis, only high priority birds in primary breeding habitat that could be impacted by the different alternatives of the proposed project will be addressed.

Monitoring: Surveys for presence/absence of MBTA via Breeding Bird (BBS) and Bird Point Count (BPC) Surveys have been established for the Salmon-Challis National Forest utilizing national protocols. Determination of the presence/absence of MBTA Species in areas, are inferred by these surveys. Incidental sightings of high priority MBTA Species are verified by a Zone Wildlife Biologist, technicians, and/or other qualified personnel as time constraints and quality of sighting data permit.

Project area: The Action Area contains approximately 550 acres of MBTA habitat. It contains approximately 520 acres of forested habitat and 30 acres of non-forested habitat. The forested habitat can be separated into 450 acres of the Douglas-fir (LOCON) forested habitat type and 70 acres of the Ponderosa Pine (PPINE) habitat type. Suitable and abundant LOCON and PPINE cavity habitat is available within the immediate vicinity of the Project Location. The non-forested habitat contains approximately 30 acres of the willow riparian (RIPARIAN).

The IBCP (ID PIF 2000 p15-17) identifies that, during breeding season, a total of 83 bird species utilize the LOCON habitat type, 31 bird species utilize the PPINE habitat type, and 114 bird species utilize the RIPARIAN habitat type. 34 bird species utilize LOCON habitat as primary habitat, 5 bird species utilize PPINE habitat as primary habitat, and 61 bird species utilize RIPARIAN habitat as primary habitat.

According to the IBCP, 9 High Priority Bird Species utilize LOCON habitat as their primary breeding habitat. 2 High Priority Bird Species utilize PPINE habitat as their primary breeding habitat, and 13 High Priority Bird Species utilize RIPARIAN habitat. Impacts to these 25 High Priority Species were analyzed in this report (See Table 3).

1 MBTA High Priority Bird Species has been formally documented within the Action Area, and 1 has been documented within a Reasonable Travel Distance to the Action Area. It is possible that other High Priority Bird Species are present within the Action area, but detections of these species have not been documented. Reproductive, foraging, and migration/dispersal habitat for LOCON, PPINE, and RIPARIAN MBTA Species does exist within the Project Area.

Impacts of Proposed Project: Habitat for MBTA species is considered present in the Action Area and at the Project Sites. Project implementation disturbance impacts are considered to extend far enough to disturb these species if present within the Action Area. The Proposed Project will directly impact approximately 5 acres of habitat potentially conducive to supporting LOCON and PPINE MBTA species, and 10 acres of habitat potentially conducive to supporting RIPARIAN MBTA species. This would occur throughout the proposed project location, through activities associated with transport of vehicles and equipment, campsite and vehicle parking, elevated human presence, clearing of test trench sites, digging of trench test sites, setting up and running of water pumps, reclamation of test sites, and noise associated with project activities. At this time the project location has not been extensively surveyed for the presence of MBTA species, but the proposed project will not impact any known MBTA reproduction or nest sites. Some resident and neo-tropical migratory birds may be temporarily displaced (1 reproductive/brood-rearing season) due to Direct Impact disturbance activities associated with project implementation. Potential displacement should not be of major concern because of the presence of suitable and abundant LOCON, PPINE, and RIPARIAN habitat available adjacent to the Project Location. Direct Impacts would be short-term (1 reproductive/brood-rearing season). The Project could indirectly impact approximately 10 acres of habitat potentially conducive to supporting MBTA through introduction of invasive plant species on vehicles and equipment, mishaps with fuel and equipment storage, and/or fuel mishaps at water drafting pump sites. Elevated levels of human presence, human caused noise, water-pump noise and/or water-pump vibration disturbance at the project sites during project activities might cause MBTA species to avoid the Project Location for 1 reproductive/brood-rearing season, but impacts should be short-term and confined to the immediate area surrounding the project sites. Elevated human presence and noise/vibration disturbance impacts will return to pre-project levels upon completion of project.

Because large scale changes in habitat will not occur, and because of the temporary nature of this project, the status of bird species and the habitats that support them will not be significantly influenced by the implementation of this project. The chances of Direct Impacts of the project should be minor and generally negligible to MBTA. The chances of Direct and/or Indirect Impacts of the project to potential MBTA habitat, with incorporation of Project Design Features developed to prevent introduction and/or spread of weeds in the Action Area, would be further reduced, relatively minor and negligible. The chances of Cumulative Impacts to potential MBTA populations and habitat are low.

Proposed project actions will not cause long term and/or cumulative adverse impacts to MBTA species or populations. The project will not impact the long-term viability of MBTA species or populations on the SCNF and/or within the State of Idaho. Individual MBTA species’ population viabilities will not be at risk. The project is unlikely to impact the continued existence of MBTA species or populations and/or the quality and ability of the available habitat to support MBTA. With adherence to the Project Design Features that were developed to address possible environmental impacts, a finding of May Impact, but Not Likely to Adversely Impact has been determined for the proposed project on MBTA Species.

Facilitation of Hunting Heritage and Wildlife Conservation (HHWC) Species:

Management Implications: The Salmon-Challis National Forest contains approximately 4.3 million acres of habitat/community types conducive to supporting Hunting Heritage Wildlife Species. Moose, elk, mule deer, and pronghorn antelope are relatively common to common species. From 1997-2003 the population of moose and mule deer was stable to slightly increasing, and the population of elk was stable to slightly decreasing. Elk populations are probably meeting or exceeding population objectives stated in the Salmon National Forest Land and Resource Management Plan (SNFLRMP). Mule deer numbers are below objectives in the SNFLRMP. Pronghorn antelope are relatively common to common in suitable habitat. Pronghorn antelope populations appear to be stable. Bighorn sheep are uncommon in suitable habitat. Bighorn sheep populations are stable, but are now at low levels and are subject to potential disease transfer from domestic sheep. Proximity of domestic sheep and goats as a factor in the dynamics of bighorn sheep populations is a major consideration in management of the species. Contact between bighorn sheep and domestic goats can lead to respiratory and fatal pneumonia in bighorn sheep. Bighorn sheep appear to be behaviorally attracted to domestic sheep and goats. Efforts to identify organisms causing pneumonia in bighorn sheep following contact with domestic have identified multiple bacteria species, but the complete range of mechanisms/causal agents leading to epizootic disease events are not completely understood. Disease
transmission of bacteria (Mannheimia and Pasteurella spp.) requires very close (less than 60 ft) contact, or transfer of mucus through coughing or sneezing. Spatial and/or temporal separation between domestic sheep and goats and bighorn sheep is prudent for management of bighorn sheep (Schommer.2008). Mountain goats are uncommon in suitable habitat. Mountain goat populations are decreasing due to unknown specific causes. American marten, bobcat, mountain lion and black bear are relatively common but rarely seen species, due to their crepuscular or nocturnal behavior. American marten, bobcat, mountain lion and black bear populations are believed to be stable.

**Monitoring of Hunting Heritage and Wildlife Conservation (HHWC) Species:** Aerial Survey flights for presence/absence and population trend monitoring of HHWC species are conducted by the Idaho Department of Fish and Game (IDFG). IDFG also conducts capture and radio-collaring of mule deer and pronghorn antelope to help determine reproductive success and fawn survival of these species. Incidental sightings of HHWC species are verified by Zone Wildlife Biologists, technicians, and/or other qualified personnel as time constraints and quality of sighting data permit.

**Project Area:** The Action Area contains approximately 550 acres of HHWC habitat. It contains approximately 520 acres of forested habitat and 30 acres of non-forested habitat. The forested habitat can be separated into 450 acres of the Douglas-fir (LOCON) forested habitat type and 70 acres of the Ponderosa Pine (PPINE) habitat type. Suitable and abundant LOCON and PPINE cavity habitat is available within the immediate vicinity of the Project Location. The non-forested habitat contains approximately 30 acres of the willow riparian (RIPARIAN).

Sightings of moose, elk and mule deer scat and tracks have been noted within the Action Area. There is habitat for moose, elk, mule deer, American marten, bobcat, mountain lion, and black bear in the Action Area. Crucial habitat, in the form of a historical elk calving reproductive area is known to exist within the Action Area. Additional historical elk calving areas exist in the vicinity of the Action Area to the north and east. No other known reproductive area (fawning, lambing, kidding, and/or nursery) exists within or adjacent to thye Action Area. Summer range for moose, elk, and mule deer exists in the Action Area. Winter range for moose, elk, and mule deer exists in the Action Area. Winter range provides critical thermal cover and foraging habitat for moose, elk, mule deer, and other wintering wildlife.

**Impacts of Proposed Project:** The proposed project has the potential to directly/indirectly/cumulatively impact 550 acres of HHWC habitat within the Project Area through direct habitat altering activities associated with transport of vehicles and equipment, campsite and vehicle parking, clearing of test trench sites, digging of trench test sites, setting up and running of water pumps, and reclamation of test sites (10 acres) or human presence and human caused noise impacts (550 acres).

Because large scale changes in habitat will not occur, the status of HHWC wildlife and the habitats that support them will not be significantly influenced by project implementation. Project activities would short-term negatively impact the 550 acres of HHWC habitat in the Action Area through elevated amounts of human presence and human caused noise impacts possibly causing HHWC species to avoid the area when project activities are occurring. The increase in human presence in the Project Area could have an impact on individual moose, elk, mule deer, American marten, bobcat, mountain lions, and black bear. Crucial elk calving habitat could be impacted. But, project activities are scheduled to occur between 1 July and 1 October, generally after all big game reproduction has occurred. Little direct impact, if any, is anticipated for big game cover habitat, and no measurable effects are anticipated to winter range. Long-term and/or cumulative impacts on HHWC species from the proposed project are not expected to occur. Impacts are expected to return to pre-project levels upon completion of the project. The Determination of Impact of the proposed project on HHWC species is May Impact but Not Likely to Adversely Impact to Shiras moose, elk, mule deer, American marten, bobcat, mountain lion, and black bear. The Determination of Impact is No Impact to bighorn sheep, mountain goat and pronghorn antelope.

**10a. Cumulative Effects: Assessment of NEPA Cumulative Effects (Interrelated and Interdependent Projects, Actions, and Effects) to the Action Area by the proposed project.**

Table 2 present, past, and reasonably foreseeable rates, intensity and severity of activities, actions, and occurrences were used to help calculate the current and reasonably foreseeable cumulative effects for the project area and to assess degree of risk to TES (Not Consulted On by SCNF), MIS, and EO wildlife and plant species by the proposed project. Cumulative effects associated with the proposed project primarily would be:

Mining and Minerals Exploration and/or Extraction: If the proposed project shows a potential high economic return for mining investment, then future mining/minerals projects are reasonably foreseeable in the project area and vicinity. An increase in quantity, intensity, and size of mining/minerals projects is reasonably foreseeable. If the proposed project shows a potential high economic return for mining investment, then a project to convert public land to private land, to help facilitate in the recovery of minerals assets, is reasonably foreseeable.

When the effects of the proposed project, with design criteria, are combined with the effects of past, on-going, and reasonably foreseeable future activities, actions, and occurrences, then Cumulative Effects could have the following negative/no/neutral/positive effect to TES (Not Consulted On by SCNF), MIS, and EO wildlife and plant species and/or their habitat in the project area:

- **Long term neutral effect on bare soil wildlife and plant species**
- **Long term neutral effect on slow-moving water wildlife species**
- **Long term neutral effect on vegetation-dependent species**
- **Long term neutral effect on vegetative-structure dependent wildlife**
- **Long term neutral effect on prey species**
- **Long term neutral effect on predator species**
- **Long term neutral effect on a species-specific habitat**
- **Long term neutral effect from level of human presence**
- **Long term neutral effect from level of human usage of access route**

**10b. Assessment of ESA Cumulative Effects to the Action Area by the Proposed Project**

The Endangered Species Act (ESA) of 1973 defines Cumulative Effects as “those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02)”.

Gray wolf (*Canis lupus*) and Canada lynx (*Lynx canadensis*) are the 2 USA Federally Listed Threatened and Endangered terrestrial wildlife and plant Species (TES) listed for Lemhi County, Idaho (USDIIFWS. 2010.07.08). Gray wolf is analyzed within the BA for this Project. Since the USFWS considers the SCNF to be unoccupied by Canada lynx, and for it to be secondary habitat for Canada lynx, the analysis of effects by the Project on Canada Lynx is not included in the BA, but is included within this separate Analysis of Impacts of the Project for
TES (Not Consulted On by the SCNF) Species, Management Indicator Species, and Executive Orders Wildlife Species. Per a US Fish and Wildlife Service (USFWS) communication to the SCNF, which was received on 2007.06.12, the SCNF is presently not considered to be “occupied” by Canada lynx. Since the SCNF is not considered to be “occupied” by Canada lynx, the SCNF is not required to consult with the USFWS on project effects to Canada lynx under section 7 of the ESA or for effects to Canada lynx from actions proposed by the SCNF. The SCNF has been advised by the USFWS that it is not required to consult under section 7 of the ESA for effects to Canada lynx from actions proposed by the SCNF from 2007.06.12 until new information on lynx presence on the SCNF becomes available (USFWS 2007.06.12). New information on Canada lynx presence on the SCNF is considered to be the documentation of 2 genetically verifiable detections of Canada lynx, or proof of Canada lynx reproduction, occurring on SCNF administered lands (USFWS 2007.06.12). No change in this status of consultation requirements has been identified to date because there has been no genetically verified detection of Canada lynx on SCNF administered lands from 2007.06.12 to the current date.

The project Action Areas encompass a mix of NFS and private lands. There are no State of Idaho lands within the Project Areas. AA1 includes an approximate 80 acre portion of 2 parcels of private land at the Musgrove Mine Site. These parcels are located downridge and to the southeast of the drilling sites location, close to the bottom of Musgrove Creek Valley. They are located on the south-facing slope at the bottom of the ridge adjacent to the north bank of Musgrove Creek. AA2 includes a 1 acre portion of the Blackbird Mine Site at the entrance to the Ludwig Gulch Road.

There are no known projects by the State of Idaho presently occurring, or planned to occur within the reasonably foreseeable future, in the Action Areas. There is 1 known project by private individuals, the Musgrove Creek Exploration-Journey Resources Project, proposed to occur in the Action Area from 2010.07-2011.10.15. If the proposed project shows a potential high economic return for mining investment, then future mining/minerals projects are reasonably foreseeable in the project area and vicinity. An increase in quantity, intensity, and size of mining/minerals projects is reasonably foreseeable. If the proposed project shows a potential high economic return for mining investment, then a project to convert public land to private land, to help facilitate in the recovery of minerals assets, is reasonably foreseeable. But, at this time, there are no known projects currently planned by private individuals to occur within the reasonably foreseeable future in the Project Area or its vicinity.

The effects of on-going non-federal actions upon TES wildlife and plants, on TES wildlife and plant resources, and on TES wildlife and plant habitats, within the Project Action Areas are currently minimal. The effects of the proposed project non-federal actions upon TES wildlife and plants, on TES wildlife and plant resources, and on TES wildlife and plant habitats, within the Project Action Areas have been assessed to be long term neutral. The effects of future non-federal actions upon TES wildlife and plants, on TES wildlife and plant resources, and on TES wildlife and plant habitats, within the Project Action Areas are dependent on findings to be determined by the proposed project. Future projects have not been proposed and effects of possible projects are currently considered non-existent. As defined by the ESA, there are No Adverse Cumulative Effects for TES species in the Project Action Areas.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Criteria</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Does the activity likely involve the 'direct taking' of TES (Not Consulted On by SCNF), MIS and/or EO wildlife species (including the capture, collection, harassment, or causing of harm to individuals)?</td>
<td>No</td>
</tr>
<tr>
<td>2.</td>
<td>Does the activity fail to comply with Forest Plan direction for management of TES (Not Consulted On by SCNF), MIS, and/or EO wildlife species or their habitats?</td>
<td>No</td>
</tr>
<tr>
<td>3.</td>
<td>Does the activity fail to comply with or violate any provisions of the Endangered Species Act?</td>
<td>No</td>
</tr>
<tr>
<td>4.</td>
<td>Does the activity preclude or influence implementation of any current or foreseeable management strategies associated with restoration of TES (Not Consulted On by SCNF), MIS and/or EO wildlife species or their habitats?</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: If all responses to the above criteria are “No”, then the determination of effects/impacts of the described activity on TES (Not Consulted On by SCNF), MIS, and EO wildlife species is “No Effect/No Impact”

11. Compliance with the Salmon National Forest Plan and Other Regulatory Direction

Upon analysis the Proposed Project, as described above, is in compliance with the Salmon Forest Plan and other federal regulatory direction.

12. References


Idaho Conservation Data Center (CDC) GIS database. 2011. IDFG. Confidential.


Montana Dept. of Fish, Wildlife and Parks. 1999. Furbearer Program: Field Identification characteristics of Mountain Lion, Lynx, and Bobcat – physical markings and tracks in the snow.


Samson, F.B. 2006 (June 6 version). Habitat estimates for maintaining viable populations of the northern goshawk, black-backed woodpecker, flammulated owl, piliated woodpecker, American marten, and fisher. Draft unpublished report on file, Northern Region, Missoula, Montana, USA.


Steck, M. 2010.07.08. Field Notes- Hughes Creek Placer POO. 3 pages.


____________________. 2000. Lynx Level 1 Team- Effects of Ongoing Activities/Existing Projects on Canada Lynx for USDA Forest Service Region 4 as modified for the Salmon-Challis National Forest.


____________________. 2008.07.24. Forest Service National Environmental Policy Act (NEPA) Regulations (36 CFR 220.4(f)).


MIS and SMC Report


2005. Occupied mapped lynx habitat amendment to the Canada Lynx Conservation Agreement. 6pp.


Appendix A

National Marine Fisheries Service (NMFS) Pump Intake Screen Criteria For Water Drafting

**Screen Approach Velocity (How to calculate):** The *approach velocity* must not exceed 0.40 feet per second (ft/s) for *active screens*, or 0.20 ft/s for *passive screens*. Using these approach velocities will minimize screen contact and/or impingement of juvenile fish. For pump intake screen designs for water drafting, *approach velocity* is calculated by dividing the maximum screened flow amount (cubic feet per second (cfs)) by the entire *effective screen area*. *Approach velocity* should be measured as close as physically possible to the boundary layer turbulence generated by the screen face.

**Effective Screen Area:** The minimum *effective screen area* must be calculated by dividing the maximum screened flow by the allowable *approach velocity* (0.40 ft/s for *active screens*, or 0.20 ft/s for *passive screens*).

**Specific Criteria and Guidelines for Pump Intake Screen Mesh Material**

**Circular Screens:** Circular screen face openings must not exceed 3/32 inch in diameter. Perforated plate must be smooth to the touch with openings punched through in the direction of approaching flow.

**Slotted Screens:** Slotted screen face openings must not exceed 1.75 mm (approximately 1/16 inch) in the narrow direction.

**Square Screens:** Square screen face openings must not exceed 3/32 inch on a diagonal.

**Material:** The *screen material* must be corrosion resistant and sufficiently durable to maintain a smooth uniform surface with long term use.

**Other Components:** Other components of the screen facility (such as seals) must not include gaps greater than the maximum screen opening defined above.

**Open Area:** The percent open area for any *screen material* must be at least 27%.

**Information provided by the following documents:**


Appendix A
Salmon-Challis National Forest
North Fork Ranger District
Area Map
Hughes Creek
Proposed Trench Sites

Scale: 1:79200

ENLARGEMENT
Area of Proposed Trench Sites

Legend
Trenches
Forest Routes Near Sites
Main Roads
Township and Range
Forest Boundary
Salmon-Challis National Forest

State of Idaho Vicinity Map

Major Highways
Salmon-Challis National Forest
North Fork
Salmon

See Appendix A For Local Area and Project Location