

Appendix H

WORKSHEET 1 – Wilderness Attributes
 Evaluating the Effects of Project Activities on Wilderness Attributes
 and
 WORKSHEET 2 – Roadless Area Characteristics
 Evaluating the Effects of Project Activities on Roadless Area Characteristics
 for the
Pole Creek Roadless Area

WORKSHEET 1 – Wilderness Attributes
 Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	20 January 2011
Roadless Area:	Pole Creek

Description of Project Activity or Impact to Roadless Area:
<p>(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc...)</p> <p>The project will revisit the existing Travel Plan direction for the Caribou Range Mountains Subsection in order to clarify ambiguity discovered during implementation of the existing travel management plan direction and annual monitoring efforts for the existing trail system. Analysis of the road system is not part of this project. The purpose is to develop a clearly defined plan for a mix of trails designed and managed specifically for all-terrain vehicles (ATVs), motorcycles, mountain bikes and non-motorized uses. This project will also consider closing all or additional portions of the subsection to off-trail or cross-country travel by bicycles and other mechanized uses. Such cross-country summer travel or use by all motorized vehicles is already in effect (see current Revised Forest Plan).</p> <p>The need for this analysis was discovered during implementation of the 1999 Travel Plan for the following reasons:</p> <ul style="list-style-type: none"> • The current travel plan allows ATV use on motorized single-track trails that are shown as “Open for motorized use less than 50 inches wide but NOT RECOMMENDED FOR ATVs” (Targhee National Forest Travel Map - 2001). This is causing a number of resource problems and user conflicts. • A considerable increase in ATV use has occurred during the last several years. Such an increase of ATV use on single track motorized trails that were not designed for ATV use has and is continuing to pose safety risks for visitors as well as causing damage to vegetation, soils and in some cases, the trails capability to support other uses. • Continued use of some of these single track motorized trails by ATVs may result in significant environmental effects. At the same time, some trails would be suitable for ATV use with minor modifications in trail design and reconstruction.

- During the same time period, there has been an increase in the recreation use levels of all types of trail use which has increased user conflicts. The combination of increased recreation use, user conflicts and trail use beyond the capability of the intended trail design has led to some damage of the existing trail system and consequently caused a proliferation of new user-created trails.
- Both user-created motorized and non-motorized (mountain bikes) trails have often been constructed in inappropriate locations such as on steep slopes and next to streams which are non-sustainable and difficult to maintain over the long term.
- In addition, user-created motorized routes often exceed established density standards, fragment wildlife habitat, increase erosion, and cause other resource impacts.

The **actions proposed** by the Forest Service to meet the purpose and need are:

1. Develop a clearly defined plan for a mix of trails designed and managed specifically for all- terrain vehicles (ATVs), motorcycles, mountain bikes and non-motorized uses. The goal is to create a balanced network of trails that are safe, environmentally sound, affordable to manage and maintain, and responsive to public needs. (**See Appendix A - Comparison Summary of All Trails by Alternative – Caribou Range Mountains Subsection Summer Transportation Travel Plan**).
2. **Eliminate** the existing designation of “Open for motorized use less than 50 inches wide but **NOT RECOMMENDED FOR ATVs**” and allow ATVs only on trails designed and designated for ATV use.
3. Close all or additional portions of the Big Hole Mountains Subsection to off-trail use (cross-country use) by bicycles and other mechanized uses.
4. Analyze the effects of relocating sections of trails that may be necessary to accommodate the designated use in a safe and sustainable manner and be environmentally sound.
5. Develop a process or protocol to use when analyzing the effects of relocating other sections of trails which may be identified in the future without doing another environmental analysis document such as this for every relocation or closure of ill-legal user-created trails. For example, the “Adaptive Management Specialist Checklist” (see Appendix B) procedures would be utilized when potential trail segment relocations may be necessary to meet the intended use and or to protect natural resources. This checklist could also be used when decommissioning or abandoning existing trail segments or for closing ill-legal user created trails. This protocol would compare the environmental effects of relocating and or closing a trail segment or leaving it as it currently exists. This would allow future and currently unknown reroutes to be constructed and or segments to be abandoned and decommissioned without doing an entire new analysis on each new action.
6. Utilize adaptive management methods or “closure methods requiring surface disturbance” on a continuing basis without having to complete additional separate analysis on how to decommission and rehabilitate short re-routed segments and ill-legal user-created trails that are creating unacceptable environmental damage.

The protocol established in the 1999 Open Road and Open Motorized Trail Analysis, “Road Decommissioning Process Guidelines”, Appendix B, will be followed during trail reclamation and decommissioning as direct by the Revised Forest Plan. A description of the procedures to be followed is found in Appendix C of this document. Documentation (Appendix B) at the time of reclamation and or decommissioning will occur to determine effectiveness of the closure type (such as scarification, berms, rocks and vegetation) and possible impacts to resources. The United States Fish and Wildlife Service (USFWS) defines an effective closure as one where the trail no longer

functions as a summer motorized route (USFWS 1997).

Effect to Wilderness Attributes			
Wilderness Attribute (Note: delete attribute descriptions after data is entered to save space if desired.)	Is there an effect? Yes or No	Which direction is the effect? Improving, Stable or Degrading?	Describe the actual effect. Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc...) to quantify effects.
Natural Integrity A measure of whether the long-term ecological processes of the area are intact and operating. It describes the extent to which human influences have altered natural processes away from what one would expect without those impacts. Address this attribute by describing the impact your project activities may have on natural processes in the area and by describing any effects these changes may cause within the area. Consider linking to PFC.	Yes	Improving in Alternatives B and C	With any action alternative chosen, the appearance of the overall landscape will improve because there will be less pioneering of illegal and unwanted new routes from ATVs, motorcycles, and bicycles. Likewise, overall double-track mileage will be reduced as ATVs will be restricted to routes designed and designated for their use – instead of being allowed on single-track routes.
Apparent Naturalness A measure of past and proposed activities on the appearance of naturalness of the area to the casual observer. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the Roadless area, (i.e. length of roads built, facilities constructed) and how apparent the impact will be to the visitors of the area in both the short-term and the long-term. Effects should be judged from a layman's point of view. Consider existing scenic integrity and ROS layers.	Yes	Improving in Alternatives B and C	Same as Integrity
Remoteness A measure of distance from the sights and sounds of civilization. It tries to indicate whether the visitor will experience a setting that is removed from civilization. Address this attribute by describing any sights or sounds of civilization that will occur during the projects duration or resulting after the project is finished. Also address any change in how a visitor might access the area. Consider using ROS maps layers.	No	Stable in all Alternatives	No large or small population centers are close. Access is very easy to trailheads but somewhat remote. There will be little change as existing trails are still being utilized by motorized and non-motorized uses. The only difference across the alternatives is which trails or routes will be motorized and which will not. Very few new trails – either motorized or non-motorized are being proposed in the action alternatives.
Solitude Described as opportunities to experience solitude, or the isolation from the sights, sounds, and presence of others and from the developments and evidence of man. Solitude is measured by looking at the size of the area, the presence of screening, distance from impacts to the rest of the area, and degree of permanent intrusions. Address solitude by discussing how the project activities affect the ability of a visitor to escape project impacts	No	Stable in all Alternatives	Same as for Remoteness

<p>on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.</p>			
<p>Opportunities for Primitive Recreation A measure of the experiences available to be isolated from the evidence of man, to feel a part of nature, to have a vastness of scale, and a high degree of challenge and risk while using outdoor skills. Address this attribute by describing how the project activities might affect the size of the area, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.</p>	<p>No</p>	<p>Stable in all Alternatives</p>	<p>No change from the current situation and the direction in the 1997 Revised Forest Plan. Past and current planned use is Roaded Natural Appearing. The distance across the area is very short – especially when using ATVs and motorcycles.</p>
<p>Special Features (Ecological, Geologic, Scenic or Historical) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values. Consider Scenic Attractiveness link.</p>	<p>No</p>	<p>Stable in all Alternatives</p>	<p>There is no change from the current situation and direction in the 1997 Revised Forest Plan. Specifically, there is no significant biodiversity features within this area that warrant special consideration.</p>
<p>Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.</p>	<p>No</p>	<p>Stable in all Alternatives</p>	<p>There is no change from the current situation in size or management direction. The decision in the 1997 Revised Forest Plan was not to recommend for wilderness considerations. The area is very small and has some development type that would impact the natural integrity of the area for wilderness considerations – except motorized trails. The area is a fairly small block of land with little to no opportunity for challenging terrain. The area is currently used for motorized and non-motorized travel and is considered somewhat important by all user groups for recreational access. Opportunity for solitude is low even if motorized use is removed. However, the RFP designated this area for motorized use on trails and to improve the trails in this area to provide a system of high quality that will meet public demand.</p>

WORKSHEET 2 – Roadless Area Characteristics
 Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	20 January 2011
Roadless Area:	Pole Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc...)
Same as WORKSHEET 1

Effect to Roadless Characteristics			
Roadless Characteristics	Is there an effect? Yes or No	Which direction is the effect? Improving, Stable or Degrading?	Describe the actual effect. Use descriptive terms that discuss the effect, not the activity.
Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.	Yes	Improving in Alternatives B and C	No unique or critical resources identified, but the following applies to identified issue areas. Fisheries: Each action alternative improves upon the existing condition because they specifically designate motorized trail lengths as designated for ATVs or motorcycles. Water Quality and Soil Erosion: All alternatives would maintain existing soil and water conditions which are currently meeting the RFP standards and guidelines. This project, implemented with the BMPs (see Appendix D), complies with the applicable hydrology-related standards and guidelines from the RFP as well as the pertinent other laws, regulations, and directives discussed above. Wildlife: Each action alternative improves upon the existing condition because they specifically designate motorized trail lengths as designated for ATVs or motorcycles. Recreational Use: Overall, natural resources would benefit from specifically designating ATV trails that would be designed and

			<p>constructed for ATV use and trail maintenance would decrease. Closing all or additional portions of the subsection to cross-country travel by mountain bikes and other mechanized equipment would decrease unwanted or illegal trail development but would increase the need for enforcement efforts for the near future.</p> <p>Open Road Open Motorized Trail Route Density: An overall positive change in all issue areas should be realized by eliminating the “Open for Motorized Uses less the 50 inches wide but NOT RECOMMENDED FOR ATVs” designation in Alternatives B and C.</p>
<p>Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.</p>	No	Stable in all Alternatives	No systems identified.
<p>Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of communities and impacts to populations in the areas.</p>	Yes	Stable to improving in Alternatives B and C	See “Soil, water and air resources” in WORKSHEET 1 above.
<p>Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.</p>	Yes	Stable to improving in Alternatives B and C	Wildlife indicator species include bald eagle, trumpeter swans, spotted frogs, common loons and harlequin ducks. The subsection is shown to support all of these except trumpeter swan nesting habitat. Other indicator species include elk, gray wolf, northern goshawk, Canada lynx, some avian species, and some furbearers. However, there would be very little affect to habitats or populations and therefore the effect is not significant across the normal range and distribution of these species.
<p>Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.</p>	Yes	Stable to improving in Alternatives B and C	The proposed activities would not change the designation of the current ROS classes. RFP direction is to manage for Roaded Natural Appearing uses. This area is designated for motorized uses. There is no effect on availability for similar experiences in surrounding areas or region.
<p>Reference landscapes for research study</p>	Yes	Stable to	Overall, landscape features are average through the area. There

<p>or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.</p>		improving in Alternatives B and C	are some larger streams but nothing outstanding. Vegetative variety does exist in some areas with a mix of deciduous and evergreen trees and shrubs. Rock outcrops and canyons are typical throughout but not outstanding when compared to the adjacent Palisades Mountain Range. There are no acres where cross-country travel by any type of motorized, non-motorized or mechanized vehicle is prohibited in order to protect wildlife or wildlife habitat and other special management area resource values – such as Research Natural Areas. There is no change to this existing direction in these areas.
<p>Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.</p>	Yes	Stable to improving in Alternatives B and C	Current scenic designations are Partial Retention (Medium). Scenic quality is average or typical in most areas – as described in the section above.
<p>Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.</p>	Yes	Stable to improving in Alternatives B and C	None identified.
<p>Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.</p>	No	NA	

Appendix I

WORKSHEET 1 – Wilderness Attributes
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and
WORKSHEET 2 – Roadless Area Characteristics
Evaluating the Effects of Project Activities on Roadless Area Characteristics
for the
Bald Mountain Roadless Area

WORKSHEET 1 – Wilderness Attributes
Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	20 January 2011
Roadless Area:	Bald Mountain

Description of Project Activity or Impact to Roadless Area:

(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc...)

The project will revisit the existing Travel Plan direction for the Caribou Range Mountains Subsection in order to clarify ambiguity discovered during implementation of the existing travel management plan direction and annual monitoring efforts for the existing trail system. **Analysis of the road system is not part of this project.** The purpose is to develop a clearly defined plan for a mix of trails designed and managed specifically for all-terrain vehicles (ATVs), motorcycles, mountain bikes and non-motorized uses. This project will also consider closing all or additional portions of the subsection to off-trail or cross-country travel by bicycles and other mechanized uses. Such cross-country **summer travel** or use by all motorized vehicles is already in effect (see current Revised Forest Plan).

The **need** for this analysis was discovered during implementation of the 1999 Travel Plan for the following reasons:

- The current travel plan allows ATV use on motorized single-track trails that are shown as “Open for motorized use less than 50 inches wide but **NOT RECOMMENDED FOR ATVs**” (Targhee National Forest Travel Map - 2001). This is causing a number of resource problems and user conflicts.
- A considerable increase in ATV use has occurred during the last several years. Such an increase of ATV use on single track motorized trails that were not designed for ATV use has and is continuing to pose safety risks for visitors as well as causing damage to vegetation, soils and in some cases, the trails capability to support other uses.
- Continued use of some of these single track motorized trails by ATVs may result in significant environmental effects. At the same time, some trails would be suitable for ATV use with minor modifications in trail design and reconstruction.

- During the same time period, there has been an increase in the recreation use levels of all types of trail use which has increased user conflicts. The combination of increased recreation use, user conflicts and trail use beyond the capability of the intended trail design has led to some damage of the existing trail system and consequently caused a proliferation of new user-created trails.
- Both user-created motorized and non-motorized (mountain bikes) trails have often been constructed in inappropriate locations such as on steep slopes and next to streams which are non-sustainable and difficult to maintain over the long term.
- In addition, user-created motorized routes often exceed established density standards, fragment wildlife habitat, increase erosion, and cause other resource impacts.

The **actions proposed** by the Forest Service to meet the purpose and need are:

1. Develop a clearly defined plan for a mix of trails designed and managed specifically for all- terrain vehicles (ATVs), motorcycles, mountain bikes and non-motorized uses. The goal is to create a balanced network of trails that are safe, environmentally sound, affordable to manage and maintain, and responsive to public needs. (**See Appendix A - Comparison Summary of All Trails by Alternative – Caribou Range Mountains Subsection Summer Transportation Travel Plan**).
2. **Eliminate** the existing designation of “Open for motorized use less than 50 inches wide but **NOT RECOMMENDED FOR ATVs**” and allow ATVs only on trails designed and designated for ATV use.
3. Close all or additional portions of the Big Hole Mountains Subsection to off-trail use (cross-country use) by bicycles and other mechanized uses.
4. Analyze the effects of relocating sections of trails that may be necessary to accommodate the designated use in a safe and sustainable manner and be environmentally sound.
5. Develop a process or protocol to use when analyzing the effects of relocating other sections of trails which may be identified in the future without doing another environmental analysis document such as this for every relocation or closure of ill-legal user-created trails. For example, the “Adaptive Management Specialist Checklist” (see Appendix B) procedures would be utilized when potential trail segment relocations may be necessary to meet the intended use and or to protect natural resources. This checklist could also be used when decommissioning or abandoning existing trail segments or for closing ill-legal user created trails. This protocol would compare the environmental effects of relocating and or closing a trail segment or leaving it as it currently exists. This would allow future and currently unknown reroutes to be constructed and or segments to be abandoned and decommissioned without doing an entire new analysis on each new action.
6. Utilize adaptive management methods or “closure methods requiring surface disturbance” on a continuing basis without having to complete additional separate analysis on how to decommission and rehabilitate short re-routed segments and ill-legal user-created trails that are creating unacceptable environmental damage.

The protocol established in the 1999 Open Road and Open Motorized Trail Analysis, “Road Decommissioning Process Guidelines”, Appendix B, will be followed during trail reclamation and decommissioning as direct by the Revised Forest Plan. A description of the procedures to be followed is found in Appendix C of this document. Documentation (Appendix B) at the time of reclamation and or decommissioning will occur to determine effectiveness of the closure type (such as scarification, berms, rocks and vegetation) and possible impacts to resources. The United States Fish and Wildlife Service (USFWS) defines an effective closure as one where the trail no longer

functions as a summer motorized route (USFWS 1997).

Effect to Wilderness Attributes			
Wilderness Attribute	Is there an effect? Yes or No	Which direction is the effect? Improving, Stable or Degrading?	Describe the actual effect. Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc...) to quantify effects.
(Note: delete attribute descriptions after data is entered to save space if desired.)			
Natural Integrity A measure of whether the long-term ecological processes of the area are intact and operating. It describes the extent to which human influences have altered natural processes away from what one would expect without those impacts. Address this attribute by describing the impact your project activities may have on natural processes in the area and by describing any effects these changes may cause within the area. Consider linking to PFC.	Yes	Improving in Alternatives B and C	With any action alternative chosen, the appearance of the overall landscape will improve because there will be less pioneering of illegal and unwanted new routes from ATVs, motorcycles, and bicycles. Likewise, overall double-track mileage will be reduced as ATVs will be restricted to routes designed and designated for their use – instead of being allowed on single-track routes.
Apparent Naturalness A measure of past and proposed activities on the appearance of naturalness of the area to the casual observer. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the Roadless area, (i.e. length of roads built, facilities constructed) and how apparent the impact will be to the visitors of the area in both the short-term and the long-term. Effects should be judged from a layman's point of view. Consider existing scenic integrity and ROS layers.	Yes	Improving in Alternatives B and C	Same as Integrity
Remoteness A measure of distance from the sights and sounds of civilization. It tries to indicate whether the visitor will experience a setting that is removed from civilization. Address this attribute by describing any sights or sounds of civilization that will occur during the projects duration or resulting after the project is finished. Also address any change in how a visitor might access the area. Consider using ROS maps layers.	No	Stable in all Alternatives	One large population center is somewhat close and a few smaller communities are somewhat close along a portion of the boundary. Access is somewhat easy along most of the boundary. There will be little change as existing trails are still being utilized by motorized and non-motorized uses. The only difference across the alternatives is which trails or routes will be motorized and which will not. Very few new trails – either motorized or non-motorized are being proposed in the action alternatives.
Solitude Described as opportunities to experience solitude, or the isolation from the sights, sounds, and presence of others and from the developments and evidence of man. Solitude is measured by looking at the size of the area, the presence of screening, distance from impacts to the rest of the area, and degree of permanent intrusions. Address solitude by discussing how the project	No	Stable in all Alternatives	Same as for Remoteness

<p>activities affect the ability of a visitor to escape project impacts on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.</p>			
<p>Opportunities for Primitive Recreation A measure of the experiences available to be isolated from the evidence of man, to feel a part of nature, to have a vastness of scale, and a high degree of challenge and risk while using outdoor skills. Address this attribute by describing how the project activities might affect the size of the area, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.</p>	No	Stable in all Alternatives	No change from the current situation and the direction in the 1997 Revised Forest Plan. Past and current planned use is Semi-primitive Motorized and Roded Natural Appearing. The distance across the area is not far – especially when using ATVs and motorcycles.
<p>Special Features (Ecological, Geologic, Scenic or Historical) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values. Consider Scenic Attractiveness link.</p>	No	Stable in all Alternatives	There is no change from the current situation and direction in the 1997 Revised Forest Plan. Specifically, there is no significant biodiversity features within this area that warrant special consideration.
<p>Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.</p>	No	Stable in all Alternatives	There is no change from the current situation in size or management direction. The decision in the 1997 Revised Forest Plan was not to recommend for wilderness considerations. The area has little development of any type that would impact the natural integrity of the area for wilderness considerations – except motorized trails. The area is a moderately sized block of land with little opportunity for challenge. Some steep terrain exists, but also has considerable amounts of much easier terrain. The area is currently used for motorized and non-motorized travel and is considered important by all user groups for recreational access. Opportunity for solitude is not high even IF motorized use is removed. However, the RFP designated this area for motorized use on trails, and to improve the trails in this area to provide a significant system of high quality that will meet public demand.

WORKSHEET 2 – Roadless Area Characteristics
 Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	20 January 2011
Roadless Area:	Bald Mountain

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc...)
Same as WORKSHEET 1

Effect to Roadless Characteristics			
Roadless Characteristics	Is there an effect? Yes or No	Which direction is the effect? Improving, Stable or Degrading?	Describe the actual effect. Use descriptive terms that discuss the effect, not the activity.
<p>Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.</p>	Yes	Improving in Alternatives B and C	<p>No unique or critical resources identified, but the following applies to identified issue areas.</p> <p>Fisheries: Each action alternative improves upon the existing condition because they specifically designate motorized trail lengths as designated for ATVs or motorcycles.</p> <p>Water Quality and Soil Erosion: All alternatives would maintain existing soil and water conditions which are currently meeting the RFP standards and guidelines. This project, implemented with the BMPs (see Appendix D), complies with the applicable hydrology-related standards and guidelines from the RFP as well as the pertinent other laws, regulations, and directives discussed above.</p> <p>Wildlife: Each action alternative improves upon the existing condition because they specifically designate motorized trail lengths as designated for ATVs or motorcycles.</p> <p>Recreational Use: Overall, natural resources would benefit from specifically designating ATV trails that would be designed and</p>

			constructed for ATV use and trail maintenance would decrease. Closing all or additional portions of the subsection to cross-country travel by mountain bikes and other mechanized equipment would decrease unwanted or illegal trail development but would increase the need for enforcement efforts for the near future. Open Road Open Motorized Trail Route Density: An overall positive change in all issue areas should be realized by eliminating the “Open for Motorized Uses less the 50 inches wide but NOT RECOMMENDED FOR ATVs” designation in Alternatives B and C.
Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.	No	Stable in all Alternatives	No systems identified.
Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of communities and impacts to populations in the areas.	Yes	Stable to improving in Alternatives B and C	See “Soil, water and air resources” in WORKSHEET 1 above.
Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.	Yes	Stable to improving in Alternatives B and C	Wildlife indicator species include bald eagle, trumpeter swans, spotted frogs, common loons and harlequin ducks. The subsection is shown to support all of these except trumpeter swan nesting habitat. Other indicator species include elk, gray wolf, northern goshawk, Canada lynx, some avian species, and some furbearers. However, there would be very little affect to habitats or populations and therefore the effect is not significant across the normal range and distribution of these species.
Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.	Yes	Stable to improving in Alternatives B and C	The proposed activities would not change the designation of the current ROS classes. RFP direction is to manage for Semi-primitive and Roaded Natural Appearing uses. This area is designated for motorized uses. There is no effect on availability for similar experiences in surrounding areas or region.
Reference landscapes for research study	Yes	Stable to	Overall, landscape features are average through the area. There

<p>or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.</p>		<p>improving in Alternatives B and C</p>	<p>are no large streams and nothing outstanding. Vegetative variety does exist in some areas with a mix of deciduous and evergreen trees and shrubs. Rock outcrops and canyons are typical throughout but not outstanding when compared to the adjacent Palisades Mountain Range. There are areas greater than 1,000 acres where cross-country travel by any type of motorized, non-motorized or mechanized vehicle is prohibited in order to protect wildlife or wildlife habitat during the winter months. There are no other special management area resource values – such as Research Natural Areas. There is no change to this existing direction in these areas.</p>
<p>Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.</p>	<p>Yes</p>	<p>Stable to improving in Alternatives B and C</p>	<p>Current scenic designations are Partial Retention (Moderate) to Modification (Low). Scenic quality is average or typical in most areas – as described in the section above.</p>
<p>Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.</p>	<p>Yes</p>	<p>Stable to improving in Alternatives B and C</p>	<p>None identified.</p>
<p>Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.</p>	<p>No</p>	<p>NA</p>	

Appendix J

Alternative Maps*

Alternative A – No Action (Existing Situation)

Alternative B – Trail Committees'

Alternative C – Proposed Action

* Maps are too large to insert in this document. Maps may be viewed at the Palisades Ranger District or on the Caribou-Targhee National Forest web site shown below.

www.fs.fed.us/r4/caribou-targhee/projects/caribou_mountains_subsection/index.shtml

Appendix-K

Ecological Units Found in the Caribou Range Mountains Subsection Trails Analysis Area

Table A1. Ecological Unit Ratings and Interpretations (USFS, 1999)

Soil Ratings and Interp. by Ecological Unit	Erosion Hazard	Foot and Saddlestock Trails	Off-Road Vehicles	Motorcycle Trails	Mass Instability	Soil Loss Tolerance (T Factor) Tons/Acre
1106	Erodes Easily	Severe-Slope	Severe-Erosion	Severe-Erosion	Stable	3
1130	Erodes Easily	Moderate-Slope	Severe-Erosion	Severe-Erosion	Stable Alpine	5
1170	Moderate	Moderate-Slope	Severe-Erosion	Severe-Erosion	Unstable	5
1172	Moderate	Severe-Slope	Severe-Erosion	Severe-Erosion	Stable	2-3
1175	Erodes Easily	Severe-Slope	Severe-Erosion	Severe-Erosion	Unstable	5
1216	Erodes Easily	Severe-Slope	Severe-Erosion	Severe-Erosion	Unstable	4-5
1219	Erodes Easily	Severe-Slope/Rock	Severe-Erosion	Severe-Erosion	Unstable	5
1294	Erodes Easily	Moderate-Slope	Severe-Erosion	Severe-Erosion	Stable	5
1303	Moderate	Moderate-Slope	Severe-Erosion	Severe-Erosion	Unstable	5
1315	Moderate	Moderate-Slope	Severe-Erosion	Severe-Erosion	Unstable	5-4
1316	Erodes Easily	Severe-Slope	Severe-Erosion	Severe-Erosion	Unstable	4
1646	Moderate	Moderate-Slope	Severe-Erosion	Severe-Erosion	Unstable	5-4
2609	Low	Severe-Wetness	Severe-Wetness	Severe-Wetness	Stable	3

Ecological Unit Numbers and Names

- 1106** Abl/Phma5 Gany-Psme/Bere, Syor2 Fritz association, 40 to 70 percent slopes
- 1130** Alpine Graminoid Fritz, 4 to 30 percent slopes
- 1170** Abl/Tall Forb Yodal, 4 to 35 percent slopes
- 1172** Abl/Acgl Gany-Abla/Thoc Katpa-Psme/Bere, Syor2 Fritz complex, 40 to 70 percent slopes
- 1175** Abl/Tall Forb Yodal, 35 to 60 percent slopes
- 1216** Abl/Acgl Koffgo-Abla/Acgl Rhylow-Psme/Artrv Povey complex, 35 to 60 percent slopes
- 1219** Abl/Phma5 Lagall-Psme/Artrv Povey-Psme/Bere, Syor2 Fritz complex, 35 to 70 percent slopes
- 1294** ArtrP4/Syor2/Feid Tetonia-Psme/Osch Rin Complex, 15 to 35 percent slopes
- 1303** Abl/Osch, Pamy Edgway-Abla/Thoc Jumpstart-Psme/Artrv Tophat complex, 15 to 50 percent slopes
- 1315** Abl/Osch, Pamy Edgway-Abla/Vagl, Pamy Koffko-Psme/Artrv Povey association, 15 to 50 % slope
- 1316** Abl/Vagl, Pamy Koffgo-Abla/Thoc Koffgo-Rock Outcrop complex, 40 to 70 percent slopes
- 1646** Abl/Vagl, Pamy Huckridge-Abla/Vagl, Pamy Koffgo-Abla/Osch, Pamy Edgway complex, 15 to 50 percent slopes
- 2609** Pein Cryaquolls, 2 to 8 percent slopes

Taxonomic Classification of Dominant Soils

* Edgway -	Loamy-skeletal, mixed, superactive Vitrandic Cryoborolls
* Fritz -	Loamy-skeletal, carbonatic Calcic Cryoborolls
* Gany -	Loamy-skeletal, mixed, superactive Calcic Cryoborolls
* Huckridge -	Fine-silty, mixed, superactive Vitrandic Paleboralfs
* Jumpstart -	Fine, mixed, active Mollic Cryoboralfs
* Kapta -	Loamy-skeletal, carbonatic Calcic Pachic Cryoborolls
* Koffgo -	Loamy-skeletal, mixed, superactive Vitrandic Cryochrepts
* Legall -	Loamy-skeletal, mixed, superactive Vitrandic Cryoborolls
* Povey -	Loamy-skeletal, mixed, superactive Pachic Cryoborolls
* Rhylow -	Loamy-skeletal, mixed, superactive Vitrandic Cryumbrepts
* Rin -	Coarse-loamy, mixed, superactive Pachic Cryoborolls
* Tetonia -	Coarse-silty, mixed, superactive Calcic Pachic Cryoborolls
* Tophat -	Fine, mixed, superactive Argic Pachic Cryoborolls
* Yodal -	Fine-loamy, mixed, active, Abruptic Paleboralfs
* Cryaquolls -	Cryaquolls

Table A2. Physiographic, Geologic and Climatic Features Associated With Each Ecological Unit.

Soil Ratings and Interp. by Land Type	Elevation (feet)	Rainfall (inches)	Geology	Physiography	Drainage Class	Depth to Bedrock (feet)	Soil Loss Tolerance tons/ac/yr
1106	5,200-8,00	22	Sedimentary	Stable Mountains	Well Drained	Deep-VeryDeep	3
1130	8,400-11,00	35	Sedimentary	Stable Alpine	Well Drained	Very Deep	5
1170	7,600-9,800	45	Mixed	Unstable Mountains, Summits, Basins	Well Drained	Very Deep	5
1172	6,700-9,700	24	Sedimentary	Mid-slope Mountains	Well Drained	Very Deep	2 3
1175	7,600-9,800	45	Mixed	Unstable Mountains	Well drained	Very Deep	5
1216	5,600-8,500	26	Mixed	Unstable Mountains	Well Drained	Very Deep	4 5
1219	5,600-8,500	24	Mixed	Unstable Foothills	Well Drained	Very Deep	5
1294	5,300-6,500	18	Loess	Dissected Tablelands	Well Drained	Very Deep	5
1303	5,600-8,000	25	Mixed	Unstable Foothills	Moderately Well to Well	Very Deep	5
1315	6,000-7,800	26	Mixed	Unstable Foothills, Mountains	Well Drained	Very Deep	5 4
1316	7,200-9,800	32	Mixed	Unstable Mountains	Well Drained	Very Deep	4 4
1646	6,000-8,000	25	Mixed	Unstable Foothills	Well drained	Very Deep	5 4
2609	5,600-7,800	25	Allvium	Floodplains	Somewhat Poorly Drained	Very Deep	3

Appendix L

References

Fisheries

Yellowstone Cutthroat Trout Biological Evaluation

American Fisheries Society. 2000. Fishes of Idaho. Idaho Chapter American Fisheries Society Website.

Anonymous. 2000. Memorandum of agreement for conservation and management of Yellowstone cutthroat trout among Montana, Idaho, Wyoming, Nevada, Utah, U.S. Forest Service, Yellowstone National Park, and Grand Teton National Park. 5pp.

Furniss, M.J., T.D. Roelofs, and C.S. Yee. 1991. Road construction and maintenance. American Fisheries Society Special Publication 19:298-300.

Hendricks, P. 1997. Status, distribution, and biology of sculpins (Cottidae) in Montana. Montana Natural Heritage Program. Helena. 29pp.

Irving, J.S. and T.C. Bjornn. 1984. Effects of substrate size composition on survival of kokanee salmon and cutthroat and rainbow trout embryos. University of Idaho, Cooperative Fisheries Research Unit, Technical Report 84-6, Moscow.

Kaufman, J. Boone, and W.C. Krueger. 1984. Livestock impacts on riparian ecosystems and streamside management implications. *Journal of Range Management* 37(5): 430-438.

Idaho Department of Fish and Game. 2000. Draft Fisheries Management Plan 2001-2005. Boise, Idaho. 294pp.

Marcus, M.D., M.K. Young, L.E. Noel, B.A. Mullan. 1990. Salmonid-habitat relationships in the Western United States: a review and indexed bibliography. Fort Collins, p12.

Platts, W.S. 1991. Livestock grazing. American Fisheries Society special publication 19:389-423.

Simpson, J.C. and R.L. Wallace. 1982. Fishes of Idaho. University of Idaho Press. Moscow, Idaho. 238 pp.

USDA Forest Service. 1996. Conservation assessment for inland cutthroat trout. Ogden, Utah. 120pp.

Van Kirk, R. W., J. M. Capurso, and M.A. Novak, editors. 2006. Exploring differences between fine-spotted and large-spotted Yellowstone cutthroat trout. Symposium Proceedings, Idaho Chapter American Fisheries Society, Boise, ID.

Hydrology and Soils

Brown J. Katherine, 1994. River-Bed Sedimentation Caused By Off-Road Vehicles at River Fords in The Victorian Highlands, Australia. Water Resource Bulletin Vol. 30, No. 2 American Water Resources Association, April 1994.

Griggs B. Gary and Barbara L. Walsh, 1981. The Impact, Control, and Mitigation of Off-Road Vehicle Activity in Hungry Valley, California. Environ. Geol. 3, 229-243, 1981.

IDEQ. 2006. Rules of the Department of Environmental Quality, IDAHO ADMINISTRATIVE CODE IDAPA 58.01.02 Department of Environmental Quality Water Quality Standards <http://adm.idaho.gov/adminrules/rules/idapa58/0102.pdf>

Idaho Department of Environmental Quality (IDEQ). 2005. Principles and Policies for the 2002/2003 Integrated (303(d)/305(b)) Report, September 30, 2005. Approved by EPA http://www.deq.state.id.us/water/data_reports/surface_water/monitoring/2002.cfm

Johnson C.W. and J.P. Smith, 1981. Soil Loss Caused by Off-Road Vehicles Use on Steep Slopes. Presentation at the 1981 Winter Meeting, American Society of Agricultural Engineers. December 15-18, 1981.

Lei A. Simon, 2004. Soil Compaction from Human Trampling, Biking, and Off-Road Motor Vehicles Activity in a Blackbrush (*Coleogyne Ramosissima*) Shrubland. Western North American Naturalist 64(1), 2004.

Meyer G. Kevin, 2002. Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable, and Sensitive Environments. USDA Forest Service, Technology and Development Program Missoula, MT. 2E22A68-NPS OHV Management. October 2002.

Stokowski A. Patricia and Christopher B. LaPointe, 2002. Environmental and Social Effects of ATVs and ORVs: An Annotated Bibliography and Research Assessment. School of Natural Resources, University of Vermont, Burlington, VT 05405. Tel: 802-656-3093. Nov. 20, 2000.

USDA Forest Service. 1997. 1997 Revised Forest Plan, Targhee National Forest. Intermountain Region, Ogden, Utah. Caribou-Targhee National Forest, Idaho Falls, Idaho. <http://www.fs.fed.us/r4/caribou-targhee/projects/targheeplan.pdf>

USDA Forest Service. 1994. Letter dated Feb. 15, 1994 to Idaho Forest Supervisors; Subject: Water quality memorandum of understanding with State of Idaho. Reply to: 2530. Intermountain Region, Ogden, Utah.

USDA Forest Service. 1988. Forest Service Handbook 2509.22 Soil and Water Conservation Practices Handbook. R-1/R-4 Amendment No. 1. http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?2509.22!r4_ALL

Webb H. Robert, Craig Ragland, William H. Godwin, Dennis Jenkins, 1978. Environmental Effects of Soil Property Changes With Off-Road Vehicle Use. Environmental management, Vol. 2, No. 3, pp. 219-233.

Wilson P. John and Joseph P. Seney, 1994. Erosional Impact of Hikers, Horses, Motorcycles, and Off-Road Bicycles on Mountain Trails in Montana. Mountain Research and Development, Vol. 14, No.1, 1994 PP. 77-88.

Wyoming DEQ, 2006. Wyoming's 2006 305(b) States Water Quality Assessment Report and 2006 303(d) List of Waters Requiring TMDLs

<http://deq.state.wy.us/wqd/watershed/index.asp#TMDL>

Idaho Department of Environmental Quality (IDEQ). 2001. Palisades Subbasin Assessment and Total Maximum Daily Load Allocations. January 26, 2001. Prepared by: D.W. Zaroban & D.D. Sharp. State Technical Services Office, Idaho Department of Environmental Quality. Boise, ID.

http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/sba_tmdl_master_list.cfm

Idaho Department of Environmental Quality (IDEQ). 2003a. Teton River Subbasin Assessment and Total Maximum Daily Load. January 10, 2003. Prepared by: Idaho Falls Regional Office DEQ 900 N. Skyline Ave., Suite B Idaho Falls, Idaho 83402.

http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/sba_tmdl_master_list.cfm

Idaho Department of Environmental Quality (IDEQ). 2003b. Supplement to the Teton River Total Maximum Daily Load – Moody, Fox, and Spring Creeks, June 20, 2003. Prepared by: Mark L. Shumar State Technical Services Office DEQ, 1410 North Hilton, Boise, Idaho 83706.

http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/sba_tmdl_master_list.cfm

Wildlife

Aber, Bryan. 2010 and prior. Carnivore Biologist. Personal communication related to wildlife on the Palisades Ranger District. Interagency biologist for Forest Service, Idaho Dept Fish and Game and Wildlife Conservation Society. Ashton-Island Park Ranger District, Ashton, Idaho.

Alford, E. 2010 and prior. Personal communication and biological evaluation and biological assessment reports. District Wildlife Biologist, Palisades RD 1985-2010. Palisades Ranger Dist., Idaho Falls, Idaho.

Anderson, Eric. 2009. Effects of 2010 Caribou Subsection Summer Motorized Travel Plan Alternatives on Elk Habitat. Unpublished report. Tex Creek Wildlife Mgt Area (WMA) Wildlife Mgr, Region 6, Idaho Dept. of Fish and Game, Id. Falls, ID.

Askins, R. A. 1994. Open corridors in a heavily forested landscape; Impact on shrubland and forest interior birds. *Wildlife. Society. Bull.* 22:339-347. Also pers. comm. in Virginia WL meeting related to issue of open corridors in the forest type.

Atkinson, E.C. and M.L. Atkinson. 1990. Distribution and status of Harlequin Ducks (*Histrionicus histrionicus*) on the Targhee National Forest. Idaho Dept. of Fish and Game, Boise, Id. October 1990.

Atwood, M. Paul. 2009. Interactions between mule deer and elk on winter range at the Tex Creek wildlife management area, Idaho. M.S. Thesis. Idaho State Univ. Pocatello, Id. August 2009.

Atwood, M. Paul. 2010. Wildlife researcher and wildlife biologist for Idaho Dept. of Fish and Game. Personal communication 2010 related to radio collared elk study on Tex Creek WMA. Region 6, Id. Dept. of Fish & Game, Idaho Falls, Idaho.

Barnhurst, Dale. 1980. Range Conservationist. Personal communication and sighting form related to wildlife on the Palisades Ranger District, Caribou-Targhee Natl. Forest. Idaho Falls, ID.

Berg, N. 2010 and prior. Personal communication. Endeavor Wildlife Research, Nate Berg, Jackson Hole, Wyoming. Has worked as a tracker on Yellowstone Natl. Park Lynx study, Greater Yellowstone wolverine study and most recently the Greater Yellowstone Lynx study (Bridger-Teton NF) as the lead biologist for Endeavor Wildl. Res. Group. Related to lynx tracking and other wildlife.

Blue Ribbon Coalition (BRC). 2005. Recreationists support bipartisan ESA reform. By Don Amador, BRC Western Repres., Blue Ribbon Coalition Website. Link to OHV/Spotted Owl Study. <http://www.sharetrails.org/releases/?story=438&filter=media>

Boal, C. W. and R. W. Mannan. 1994. Northern goshawk diets in ponderosa pine forests on the Kaibab Plateau. *Studies in Avian Biology* 16: 97-102.

Boyd, D.K., and D.H. Pletscher. 1999. Characteristics of dispersal in a colonizing wolf population in the central Rocky Mountains. *Journal of Wildlife Management* 63: 1094-1108.

Brown, C. 1981. Spring-Fall Movements and Distribution of Tex Creek Elk in Southeast Idaho. *Tex Creek Wildlife Management Area Management Plan*. Idaho Department of Fish and Game. Idaho Falls, Idaho.

Brown, Cecil. 1982. Spring- fall movements and distribution of Tex Creek elk in southeast Idaho. Region 6, Idaho Department of Fish and Game, Idaho Falls, Idaho.

Brown, Trent. 2007 and prior. Wildlife technician for Idaho Dept. of Fish and Game. Reported wildlife on Palisades RD. Idaho Dept of Fish and Game, Region 6, Idaho Falls, Id.

Burger, J., M. Gochfeld, and L.J. Niles. 1995. Ecotourism and birds in coastal New Jersey: contrasting responses of birds, tourists and managers. *Environmental Conservation* 22: 56-65.

Bury, R.B. 1980. What we know and do not know about off-road vehicle impacts on wildlife. In Richard N.L. Andrews and Paul Nowak, editors. *Off-Road Vehicle Use: a Management Challenge*. (University of Michigan Extension Service) Michigan League. The University of Michigan, School of Natural Resources. USDA, Office of Environmental Quality.

Buskirk, S. W., L. F. Ruggiero, and C. J. Krebs. 2000. Pages 83-100 in Ruggiero *et al.* Ecology and conservation of lynx in the United States. University Press of Colorado, Boulder, CO.

Bybee, Bryan. 2006. Acoustic surveys on the South Fork of the Snake River. Final Report. Idaho Dept. of Fish and Game, Caribou-Targhee Natl Forest, BLM Medicine Lodge Resource Area, BYU-Idaho and Id. Cave Survey. Brigham Young Univ.- Idaho Internship. Feb 13, 2006. Also personal communication on 2005 bat survey observations to B. Alford. (Cost share agreement bet. IDFG, USFS, BLM, Id. Cave Survey and BYU-Id. Guidance and review: Dave Stricklan, Biol. Prof., Biol. Dept., BYUI, Rexburg, Id., Katie Miller, Bat Biologist, IDFG, Id. Falls, Id. and Lauri Hanuska-Brown, IDFG, Id. Falls.)

Canfield, J. E., L. J. Lyon, J. M. Hillis, and M. J. Thompson. 1999. Ungulates. Chapter 6 in Effects of Recreation on Rocky Mountain Wildlife: A Review for Montana, coordinated by G. Joslin and H. Youmans. Committee on Effects of Recreation on Wildlife, Montana Chapter of The Wildlife Society.

Capurso, James. 2010 and prior. Personal communication and biological assessment and evaluation reports for aquatic species. Forest Fish Biologist, Caribou-Targhee Natl. Forest, Idaho Falls, Idaho.

Carlisle, Jay. 2007 and prior. Personal communication. Bird biologist and bander. Idaho Bird Observatory and University of South Dakota. IBO, Boise, Idaho.

Carlisle, J. and M. Stuber. 2009. Flammulated owl breeding season survey results from three study areas in southern Idaho in 2009. 2009 Annual Report, Boise State Univ. and Idaho Dept of Fish and Game. BSU Admin Code 006G106400. Idaho Bird Observatory, Boise, ID. March 17.

Cassirer, E. F. and C. R. Groves. 1991. Harlequin duck ecology in Idaho: 1987-1990. Idaho Dept. of Fish and Game, Nongame and Endang. Wildl. Prog. Boise, ID. 94 pp.

Center for Conservation Biology (CCB). 2010. Spotted owl off-highway study. Center of Conserv. Biol., Researcher Lisa Hayward. Univ. of Washington, Seattle, WA.
<http://conservationbiology.net>

Center for Conservation Biology (CCB). 2010. Endocrine indices of disturbance on northern spotted owls. Center of Conserv. Biol., Researchers Lisa Hayward and Samuel Wasser, Univ. of Washington, Seattle, WA.

Claar, J.J., R. Naney, N. Warren, and W. Ruediger. 2003. Wildlife linkage areas: An integrated approach for Canada lynx, in Proceedings of the International Conference on Ecology and Transportation, August 24-29, 2003, Lake Placid, NY. pp. 235-239.
<http://www.escholarship.org/uc/item/7476m838?display=all>

Cole, E.K., M.D. Pope and R.G. Anthony. 1997. Effects of road management on movement and survival of Roosevelt elk. Journal of Wildlife Management 61: 1115-1126.

Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin. 28: 967-985.
http://sagemap.wr.usgs.gov/Docs/Sage_Grouse_Guidelines.PDF

Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming. Pages not numbered sequentially.

Crawford, J.A., et. al. 2004. Ecology and management of sage-grouse and sage-grouse habitat. Journal of Range Management. 57:2-19.
<http://ddr.nal.usda.gov/bitstream/10113/10979/1/IND43647350.pdf>

Delaney, D.K., and T. G. Grubb. 2001, 2003. Effects of off-highway vehicle noise on northern spotted owls: sound data results, 2002 results. Reports [2] to Mendocino National Forest, Contract No. 43-91Z9-0-0055. USA CERL, Champaign, IL; Rocky Mountain Research Station, Flagstaff, AZ.

Dobrich, Valerie. 2009. Northern Goshawk Population Monitoring and Inventory – 2009 Report. Caribou-Targhee Natl. Forest Chall. Cost Share Proj. 08-CS-11041563-046, December 1, 2009.

EIULWG. 2010. East Idaho Uplands Sage-grouse Local Working Group Draft Conservation Plan. 2010. Idaho Dept. of Fish and Game, Region 5, Pocatello and Region 6, Idaho Falls, ID and other state, federal and local agencies, landowners, farmers and ranchers.

Feltis, Scott. 1995 and prior. Forest Biologist on Caribou National Forest. Reported finding boreal owls on Caribou NF in 1980s and/ or 1990s to Bud Alford. Caribou NF, Pocatello, Id.

Ferris, C.R. (1979) Effects of Interstate 95 on breeding birds in northern Maine. *Journal of Wildlife Management*, 43, 421-427.

Foley, CAH, S Papageorge, SK Wasser. 2001. Non-invasive stress and reproductive measures of social and ecological pressures in free-ranging African elephants (*Loxodonta africana*). *Conservation Biology* 15: 1134-1142.

Franklin, A.B. 1988. Breeding biology of the great gray owl in southeastern Idaho and northwestern Wyoming. *Condor* 90:689-696.

Gates, J. E., and L. W. Gysel. 1978. Avian nest dispersion and fledgling success in forest-field ecotones. *Ecology* 59: 871–883.

Godwin, Megan. 2007. Shasta – Trinity National Forest Partners with Diverse Groups in Off-Highway Vehicle Impact Study. Redding, CA., www.ATVsource.com ATV Source, LLC, Hamilton, OH.

Groves, Craig. 1998. Personal communication. Harlequin duck expert and researcher. Idaho Dept. of Fish and Game, Boise, Id.

Gutzwiller, K.J., R.T. Wiedenmann, K.L. Clements, and S.H. Anderson. 1994. Effects of human intrusion on song occurrence and singing consistency in subalpine birds. *Auk* 111:28-37.

Gutzwiller, K.J., E.A. Kroese, S.H. Anderson, and C.A. Wilkins. 1997. Does human intrusion alter the seasonal timing of avian song during breeding periods? *Auk* 114:55-65.

Haderlie, Vaugh. 2002. Personal communication. Retired big game outfitter in Fall Creek and Bear Creek watershed and allotment areas. Freedom, Wyoming.

Hanauska-Brown, Laurie. 2007 and prior. Non-game Manager and Biologist. Personal communication related to wildlife on Palisades Ranger District. Idaho Dept of Fish and Game, Region 6. Idaho Falls, ID.

Hanowski, J. M., and G. J. Niemi. 1995. A comparison of on- and off-road bird counts: do you need to go off road to count birds accurately? *Journal of Field Ornithology* **66**:469–483.

Hanson, Greg. 2007 and prior. Personal communication. Rangeland Management Specialist, Palisades Ranger District, Caribou-Targhee NF, Idaho Falls, Id.

Hershey, T.J., and T.A. Leege. 1982. Elk movements and habitat use on a managed forest in north-central Idaho. Idaho Department of Fish and Game. 32p.

Hickman, S. 1990. Evidence of edge species attraction to nature trails within deciduous forest. *Natural Areas Journal* 10:3-5.

Hincks, Dusty. 2007 and prior. Personal communication. Range Manager. With 3 decades of managing allotments on the Palisades RD. Caribou-Targhee NF, Idaho Falls, Idaho.

Hunt, KE, A Trites, SK Wasser. 2004. Validation of a fecal glucocorticoid assay for Steller sea lions (*Eumetopias jubatus*). *Physiology and Behavior* 80: 595-601.

Hutto, R. L., S. J. Hejl, J. F. Kelley, and S. M. Pletschet. 1995. A comparison of bird detection rates derived from on-road versus off-road point counts in northern Montana. Pp. 103-110 in C. J. Ralph, J. R. Sauer, and S. Droege (tech. eds.) *Monitoring bird populations by point counts*. USDA For. Serv. Gen. Tech. Rep. PSW-GTR-149, Albany, CA.

Idaho Bird Observatory (IBO). 2009. See Carlisle and Stuber 2009: Flammulated owl breeding season survey results from three study areas in southern Idaho in 2009. Annual Report, BSU, IDFG and IBO, Boise, ID.

Idaho Department of Fish and Game (IDFG). 1990. Bighorn Sheep Management Plan: 1991 – 1995. Project Ldr. Lloyd Oldenburg; written by: Paul Hanna. Assistants: Mark Armbruster, Walt Bodie, Gary Power and Mike Schlegel. IDFG, Boise, Idaho. July.

Idaho Department of Fish and Game (IDFG). 2008. Idaho wolf population management plan 2008-2012. Idaho Department of Fish and Game, Boise, ID. 90p.
<http://fishandgame.idaho.gov/cms/wildlife/wolves/manage/PopManagePlan.pdf>

IDFG. 2008. Sharptail and Sage grouse survey maps from 2008 early spring survey. At Palisades RD and Id. Dept. of Fish and Game, Idaho Falls, Id.

IDFG. 2009. Bald Eagles in Idaho. Idaho Department of Fish and Game, Boise, ID website.
<http://fishandgame.idaho.gov/>

Idaho Department of Fish and Game. 2010 and prior. Idaho conservation Data Center (CDC), Nongame and Endangered Wildlife Program TES Plant and Animal Species data. IDFG, Boise, Idaho. Refer to Lynn Merrill 1992 Grizzly track.

Idaho Department of Fish and Game. 2010. Radio-marked elk GIS data from Atwood elk/mule deer study, 2007-2008. Researcher M.P. Atwood, Idaho Dept. of Fish and Game, Region 6, Idaho Falls, Idaho.

Idaho Department of Fish and Game. 2010. Upper Snake Region Wildlife Newsletter. Spring 2010. Region 6 office. 4279 Commerce Circle, Idaho Falls, ID.

Idaho Department of Fish and Game – US BLM. 2010. Survey Report, 2010 for Yellow-billed Cuckoos in Swan Valley, ID. Refer to Rob Cavallaro, Non-Game Manager and Biologist, Idaho Dept of Fish and Game, Id. Falls, ID.

Idaho Sage-grouse Advisory Committee (ISAC). 2006. Conservation plan for the Greater Sage-grouse in Idaho. http://fishandgame.idaho.gov/cms/hunt/grouse/conservation_plan/

IPRD (Idaho Parks and Recreation Dept.), USDI, Bureau of Land Management, USDA Forest Service, Idaho ATV Assoc., Idaho Dept of Fish and Game, Idaho Dept. of Lands. 2001. Hunting and ATVs – Responsibility or Regulation. Interagency pamphlet for State of Idaho. IPRD, Boise, Idaho. http://parksandrecreation.idaho.gov/assets/content/docs/ATVs_hunting.pdf

IPRD 2010. Idaho Parks and Recreation Department for the State website. Referring to Idaho State ATV Association and data related to boom of OHV motorized use. <http://parksandrecreation.idaho.gov/recreation/motorbikesandatvs.aspx>

Irwin, L.L., and J.M. Peek. 1979. Relationship between road closure and elk behavior in northern Idaho. Pages 199-205 in Boyce, M.S. and L.D. Hayden-Wing, editors, North American Elk: Ecology, Behavior, and Management. Laramie, WY: University of Wyoming.

ISATVA. 2010. Idaho State All Terrain Vehicle (ATV) Association. ISATVA Website: <http://idahostayontrails.blogspot.com/2010/05/two-statewide-atv-associations-merge.html>
<http://www.idahostateatv.org/>

Idaho Partners in Flight. 2000. Idaho Bird Conservation Plan, Version 1.0, January 2000. Prepared by Idaho Partners in Flight. Address questions to Sharon Ritter, Hamilton, Mt. email: ritter@bitterroot.net.

Inman, R. and K. Inman. 2010 and prior. Personal communication. Director and Co-Principal Investigators and researchers, Greater Yellowstone Wolverine Program, Wildlife Conservation Society, 4 Trail Crk, Ennis, Mt 59729.

Inman, R. M., K. H. Inman, R. R. Wigglesworth, J. J. Beecham. 2007 and prior. Greater Yellowstone wolverine program: WCS annual reports. Wildlife Conservation Society/Hornocker Wildlife Institute. Jackson, WY.
<http://www.wcs.org/international/northamerica/yellowstone/wolverine>

Interagency Grizzly Bear Conservation Strategy Team. 2007. Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area. Developed by the Interagency Conservation Strategy Team, March 2007. 86 pp + appendices.

Irwin, L.L., and J.M. Peek. 1979. Relationship between road closure and elk behavior in northern Idaho. Pages 199-205 in Boyce, M.S. and L.D. Hayden-Wing, editors, North American Elk: Ecology, Behavior, and Management. Laramie, WY: University of Wyoming.

- Janis, M.W., and J.D. Clark. 2002. Responses of Florida panthers to recreational deer and hog hunting. *Journal of Wildlife Management* 66(3): 839-848.
- Johnson, W. A., and A. W. Todd. 1985. Fisher, *Martes pennanti*, behavior in proximity to human activity. *Can. Field-Natur.* 99:367-369.
- Joslin, G., and H. Youmans, coordinators. 1999. Effects of recreation on Rocky Mountain wildlife: A review for Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society. 307 pp.
- Keller, C. M. E., and M. R. Fuller. 1995. Comparison of birds detected from roadside and off-road point counts in the Shenandoah National Park. Pp. 111-115 in *Monitoring bird populations by point counts* (c. J. Ralph, J. R. Sauer, and S. Droege, editors). United States Forest Service GTR, PSW-149, Albany, California.
- Kerner, Drew. 2006 and prior. Personal communication. Biologist, High School Biology Dept Chairman and taxidermist. Idaho Falls High School; also biologist and field technician on Palisades Ranger District, Caribou-Targhee Natl. Forest 1990-2003, Id. Falls, Id
- Keysor, Ann. 2003. Personal communication. Wildlife biologist. Completed survey for harlequin ducks on McCoy Creek on Soda Spring Ranger District, Caribou-Targhee NF, Montpelier, Id.
- Kiene, David G. 1998. The Effects of Cattle Grazing on Montane Riparian Birds. Master's Thesis, Washington State Univ., Dept. of Zoology. Pullman, WA. (This study was partially funded by Targhee NF and occurred in 13 study sites (6 ungrazed, 7 grazed); 10 in Big Hole Mtns; 1 in Teton Range; 2 Palisades Range. Document is located from Caribou – Targhee NF, Id. Falls, Idaho.
- Kroodsma, R. L. 1982. Edge effect on breeding forest birds along a power-line corridor. *Journal of Applied Ecology* 19:361-370
- Krüger, O. and J. Lindström. 2001. Habitat heterogeneity affects population growth in goshawk *Accipiter gentilis*. *Journal of Animal Ecology*, 70, 173–181.
- Krüger, O. 2002. Analysis of nest occupancy and nest reproduction in two sympatric raptors: common buzzard *Buteo buteo* and goshawk *Accipiter gentilis*. *Ecography* 25:523–532
- Lee, J.A. 1981. Habituation to human disturbance in nesting Accipiters. *Raptor Research* 15:48-52.
- Leukering, T., M. Carter, A. Panjabi, D. Faulkner, and R. Levad. 1998. Rocky Mountain Bird Observatory Point Transect Protocol: Revised May 2006. Rocky Mountain Bird Observatory, Brighton, CO, 113 pp.
- Levine, Ed. 1992. Great gray owl (*Strix nebulosa*) surveys on the Caribou National Forest. Idaho Dept. of Fish and Game, Boise, Id. CCS Project with CNF.

- Lewis, Lyle and C. Richard Wenger (Authors). 1998. Idaho's Canada Lynx: Pieces of the Puzzle. USDI Bureau of Land Management and USDA Forest Service. Idaho Bureau of Land Management Technical Bulletin No. 98-11, October 1998. Boise, Idaho. 20p. + map.
- Lewis, Lyle, Joe Lowe and Karl Bohan. 1997. Pritchard Creek mine bat survey report and personal communication. Lewis: Bureau of Land Mgmt, Idaho State Office; Lowe: Idaho Falls BLM District; Bohan: Biology teacher, Skyline High School. Idaho Falls, Idaho.
- Liss, Shane. 2010 and prior. Conservations Officer, Swan Valley. Region 6, Idaho Department of Fish and Game. Personal communication related to wildlife. Idaho Falls, Id.
- Losinski, Gregg. 2005. Public information officer. Region 6, Idaho Dept. Fish and Game. Personal communication. Idaho Falls, Id.
- Lyon, L. Jack. 1979. Habitat Effectiveness for Elk as Influenced by Roads and Cover. *Journal of Forestry* 77 10:659-660
- Lyon, L.J. 1983. Road density models describing habitat effectiveness for elk. *Journal of Forestry* 81: 592-595.
- Lyon, L. Jack. 1984. Field tests of elk/timber coordination guidelines. USDA Forest Service, Intermountain Forest & Range Experiment Stations, Ogden, UT.. INT 325. 10pp.
- Lyon, L. Jack. 1987. HIDE2: Evaluation of elk hiding cover using a personal computer. USDA Forest Service, Intermountain Research Station, Research Note INT-365. Missoula, MT. 2pp.
- Lyon, L. Jack and A.G Christensen. 1992. A partial glossary of elk management terms.. USDA Forest Service, Intermountain Research Station, General Tech. Report INT-288. Missoula, MT. 6pp.
- Mace, R.D., J.S. Waller, T.L. Manley, L.J. Lyon, and H. Zuuring. 1996. Relationships among grizzly bears, roads and habitat in the Swan Mountains, Montana. *Journal of Applied Ecology* 33: 1395-1404.
- Martin, T. E. 1988. Processes organizing open-nesting bird assemblages: competition or nest predation? *Evolutionary Ecology* 2:37-50.
- McDaniel, Gregory W. 2007. Northern Goshawk Population Monitoring and Inventory – Final Report 2006. Caribou-Targhee Natl. Forest Chall. Cost Share Proj. 06-CS-11041563-046, March 12, 2007.
- McDaniel, Gregory W. 2008. Northern Goshawk Population Monitoring and Inventory – Final Report 2007. Caribou-Targhee Natl. Forest Chall. Cost Share Proj. 07-CS-11041563-028, March 4, 2008.
- Meints, Daryl. 2010 and prior. Game Manager and Biologist. Personal communication related to wildlife on Palisades Ranger District. Idaho Dept of Fish and Game, Region 6. Idaho Falls, ID.

Merrill, Lynn. 2005 and prior. Personal communication. Conservation Officer, Palisades Swan Valley Area. Idaho Dept. of Fish and Game, Region 6, Idaho Falls, Idaho.

Merrill, T., D.J. Mattson, R.G. Wright and H.B. Quigley. 1999. Defining landscapes suitable for restoration of grizzly bears *Ursus arctos* in Idaho. *Biological Conservation* Vol. 87 (1999) p. 231-248.

Merrill, Troy and David J. Mattson. 2003. The extent and location of habitat biophysically suitable for grizzly bears in the Yellowstone Region. *Ursus* 14 (2): 171-187.

MIC (Motorcycle Industry Council). 2010. MIC Statistical Annual Report. Reported in Idaho Stateman, March 20, Moeller K). <http://www.mic.org/>

Miller, S.G., R.L. Knight and C.K. Miller. 1998. Influence of Recreational Trails on Breeding Bird Communities. *Ecological Application*, Vol.8, Issue 1, Feb 1998, p. 162-169.

Millsbaugh, J.J. 1995. Seasonal movements, habitat use patterns and the effects of human disturbances on elk in Custer State Park, South Dakota. M.S. Thesis. Brookings, SD: South Dakota State University.

Millsbaugh, J.J., G.C. Brundige, R.A. Gitzen, and K.J. Raedeke. 2000. Elk and hunter space-use sharing in South Dakota. *Journal of Wildlife Management* 64(4): 994-1003.

Millsbaugh, J.J., R.J. Woods, K.E. Hunt, K.J. Raedeke, G.C. Brundige, B.E. Washburn, and S.K. Wasser. 2001. Fecal glucocorticoid assays and the physiological stress response in elk. *Wildlife Society Bulletin* 29.

Millsbaugh, Joshua J., Brian E. Washburn, Mark A. Milanick, Jeff Beringer, Lonnie P. Hansen and Tamara M. Meyer. 2002. Non-invasive techniques for stress assessment in white-tailed deer. *Wildlife Society Bulletin* Vol. 30, No. 3 (Autumn 2002).

Moeller, K. 2010. More Boiseans enjoy their motorcycles than just about anyone else in the country/ and Additional Information. Idaho Statesman, Mar. 20, 2010. kmoeller@idahostatesman.com.

Moller, A. P. 1989. Nest site selection across field-woodland ecotones: the effect of nest predation. *Oikos* 56:240-246.

Muller, K.L., J.A. Stamps, V.V. Krishnan, N.H. Willits. 1997. The effects of conspecific attraction and habitat quality on habitat selection in territorial birds (*Troglodytes aedon*). *American Naturalist* 150: 5, pp. 650-661.

Myer, John. 2005. A storm of owls. Minnesota. Dept. of Natural Resources, St. Paul, Minn. http://www.dnr.state.mn.us/volunteer/janfeb06/owl_storm.html

Nadeau, M. S., et. al. 2009. Wolf conservation and management in Idaho; progress report 2008. Idaho Department of Fish and Game, 600 South Walnut, Boise, ID; Nez Perce Tribe, Lapwai, ID. 106p. <http://fishandgame.idaho.gov/cms/wildlife/wolves/manage/08report/08report.pdf>

- Parkin T. D. and Strickland D. 2002. Detection of Expanded Ranges of Amphibians in the Caribou/Targhee National Forest. Brigham Young University-Idaho. Rexburg, Idaho.
- Patla, Susan. 2009 and prior. Wyoming Game and Fish Department Nongame Biologist. Personal communication regarding wildlife and sightings and distribution. Goshawk/ Bird Research Biologist, Idaho State University, Pocatello, Id. and Driggs, Idaho. Currently, Wyo. Dept. of Game and Fish, Jackson, Wy.
- Patla, Susan. 1995. Big Hole Mountains Riparian Neotropical Migratory Landbird Monitoring Project (1994 Season Report of Grazed/ Ungrazed areas, include 1993 data). Prepared by S. Patla for Targhee NF. Available at Palisades RD, Caribou-Targhee NF, Idaho Falls, Idaho.
- Paton, P. W. C. 1994. The effect of edge on avian nest success: how strong is the evidence? *Conservation Biology* **8**: 17–26.
- Phillips, G.E. 1998. Effects of human-induced disturbance during calving season on reproductive success of elk in the upper Eagle River Valley. Dissertation. Fort Collins, CO: Colorado State University.
- Phillips, Gregory E. and A. William Alldredge. 2000. Reproductive success of elk following disturbance by humans during calving season. *The Journal of Wildlife Mgmt.*, Vol 64, No.2 (Apr. 2000), pp 521-530.
- Podruzny, Shannon R., Steve Cherry, Charles C. Schwartz and Lisa A. Landenburger. 2002. Grizzly bear denning and potential conflict areas in the Greater Yellowstone Ecosystem. *Ursus*: In Press. Interagency Grizzly Bear Study Team.
- Reese, Jerry. 1998. Definition of the term “Management Season” in the Forestwide Goshawk Standards and Guidelines. Targhee National Forest, St. Anthony, ID. Caribou-Targhee NF, Idaho Falls, ID.
- Reijnen, R. & Foppen, R. 1994. The effects of car traffic on breeding bird populations in woodland. I. Evidence of reduced habitat quality for willow warblers (*Phylloscopus trochilus*) breeding close to a highway. *Journal of Applied Ecology*, 31, 85-94. Reijnen, M.J.S.M. & Thissen, J.
- Reynolds, Tim. 2005 and prior. Personal communication. Wildlife Biologist, TREC wildlife consulting. Rigby, Idaho.
- Reynolds, T. and Chad Hinckley. 2005. Final Report. A survey for yellow-billed cuckoo in recorded historic and other likely location in Idaho. TREC, Inc. wildlife consulting, Rigby ID. August 2005. Rigby, Idaho. Idaho BLM Tech. Bull. 2005-05. trec@onewest.net
- Rich, A.C., D.S. Dobkine, and L.J. Niles. 1994. Defining forest fragmentation by corridor width: The influence of narrow forest-dividing corridors on forest-nesting birds in southern New Jersey. *Conserv. Biol.* 8:1109-1121.
- Robertson, G.J., F. Cooke, R.I. Goudie, and W.S. Boyd. 2000. Spacing patterns, mating systems, and winter philopatry in Harlequin Ducks. *Auk* 117:299-307.

Rosen, P.C., and C. H. Lowe. 1994. Highway mortality of snakes in the Sonoran Desert of southern Arizona. *Biological Conservation* 68: 143-148.

Rotenberry, J.T., and S.T. Knick 1991. Passerine surveys on the Snake River Birds of Prey Area. In *Snake R. Birds of Prey Area 1991 Annual Rpt.*, pages 220-228. Editor: Karen Steenhof. USDI, Bureau of Land Mgmt, Boise, Idaho.

Rowland, M. M., M. J. Wisdom, B. K. Johnson, and M. A. Penninger. 2004. Effects of roads on elk: Implications for management in forested ecosystems. *Transactions of the North American Wildlife and Natural Resource Conference* 69: 491-508.

Rowland, M.M., M.J. Wisdom, B.K. Johnson, and M.A. Penninger. 2005. Effects of roads on elk: implications for management in forested ecosystems. Pages 42-52 in Wisdom, M.J., technical editor, *The Starkey Project: a synthesis of long-term studies of elk and mule deer*. Reprinted from the 2004 *Transactions of the North American Wildlife and Natural Resources Conference*, Alliance Communications Group, Lawrence, KS.

Ruediger, B. 1996. The relationship between rare carnivores and highways. *Proceedings of the Florida Department of Transportation/Federal Highway Administration Transportation-related Wildlife Mortality Seminar, April 30-May 2, 1996*. U.S. Department of Transportation. Federal Highway Administration. FHWA-PD-96-041, Washington, DC.

Ruediger, B., et. al. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Publication #R1-00-53, Missoula, MT. 142 p.
http://www.fs.fed.us/r1/clearwater/terra_org/wildlife_07/t_e/canada_lynx/conservation_assessment_strategy.pdf

Ruggiero, L. 1994. *Scientific Basis for Conserving Forest Carnivores*. USDA Forest Service, General Technical Report RM-254.

Ruggiero, L., et al. 1999. *Ecology and Conservation of Lynx in the United States*. USDA Forest Service. General Technical Report RMRS-GTR-30WW

Rutledge, Hope. 2009. *History of Bald Eagles*. www.baldeagleinfo.com/

Servheen, C. 2010. *Final Report: Surveying for grizzly bear presence in the Beaverhead Mountains of Montana and Idaho*. College of Forestry and Conservation, University of Montana, Missoula, MT, 17 p. + appendix.

Shenk, T. 2009. *Wildlife Research Report – Post-release monitoring of lynx reintroduced to Colorado*. Colorado Division of Wildlife, Fort Collins, CO, 55 p.
<http://wildlife.state.co.us/NR/ronlyres/AD9B39DC-79B8-4E2E-9499-4E120FA41751/0/LynxAnnualReport20082009.pdf>

Shively, K.J., A.W. Alldredge and G.E. Phillips. 2005. Elk reproductive response to removal of calving season disturbance by humans. *Journal of Wildlife Mgmt.* 69 (3): 1073-1080.

Small, M. F., and M. L. Hunter. 1988. Forest fragmentation and avian nest predation in forested landscapes. *Oecologia* 76:62-64.

Speiser, R. 1992. Notes on the natural history of the northern goshawk. *Kingbird* 42:133-137.

Squires, J.R., and P. Kennedy. 2006. Northern goshawk ecology: an assessment of current knowledge and information needs for conservation and management. *Studies in Avian Biology* 31:8-62.

Stephens, D.A. and S.H. Sturts. 1998. Idaho Bird Distribution. Idaho Museum of Natural History. Pocatello, ID. http://www.idahobirds.net/distribution/dbase_spec.html

Strauss, E.G. 1990. Reproductive success, life history patterns, and behavioral variation in a population of piping plovers subjected to human disturbance. Dissertation. Medford, MA: Tufts University.

Swartz, K. 2008. Fuels Manager. Teton Basin and Palisades Ranger Districts. Reported a wild sheep in Pine Creek. Palisades RD, Idaho Falls, Id.

Thomas, Terry. 2001. Final Report - Elk Radio Telemetry Study, Tex Creek Wildlife Management Area. January 1998 to December 2000. Region 6, Idaho Department of Fish and Game, Idaho Falls, Idaho.

Thomas, Terry. 2010 and prior. Personal communication. Wildlife Habitat Manager, Region 6, Idaho Dept. of Fish and Game, Idaho Falls, ID.

TREC, Inc. 2003. 2003 Summary Report – A Survey for Yellow-billed Cuckoo in Recorded Historic and Other Likely Locations in Idaho. BYU student field personnel. TREC, Inc., Rigby, Idaho. 18pp + maps.

TREC. 2004. Summary Report; A survey for yellow-billed cuckoo in recorded historic and other likely locations in Idaho. Trec, Inc., 4276 E. 300 North, Rigby, Idaho 83442. 28 pp+ maps. Tim D. Reynolds, President. December 2004.

USDA Forest Service. Targhee National Forest. 1997. Process Paper D - Wildlife Analysis for the Targhee Forest Plan Revision. Targhee National Forest, St. Anthony, ID.

USDA Forest Service. 1997. 1997 Revised Forest Plan FEIS- Targhee National Forest. Targhee National Forest, St. Anthony, ID.

USDA Forest Service. 1997. 1997 Revised Forest Plan FEIS- Targhee National Forest. Targhee National Forest, St. Anthony, ID.

USDA Forest Service. 1999. Motorized road and trail travel plan, Targhee National Forest. October 1999. Targhee National Forest, St. Anthony, ID.

USDA Forest Service. 2000. Forest Plan Monitoring and Evaluation Report 1997-1999. Caribou-Targhee National Forest, Idaho Falls, Id.

USDA Forest Service. 2001. Caribou - Targhee National Forest Travel Map, Palisades and Teton Basin Ranger Districts, Driggs and Idaho Falls, ID.

USDA Forest Service. 2001. Fall Creek Watershed Analysis, Palisades Ranger District. Document located at District office and Caribou - Targhee National Forest, Idaho Falls, Idaho, ID. http://www.fs.fed.us/r4/caribou-targhee/watershed/anaylsis_index.shtml

USDA Forest Service. 2001. Biological Assessment: The Effects of Snowmobile Use on Grizzly Bears. Gallatin, Beaverhead-Deerlodge, Custer, Bridger-Teton, and Shoshone National Forests, USDA Forest Service. Greater Yellowstone Area.

USDA Forest Service. 2002. Forest Plan Monitoring and Evaluation Report 2000-2001. Caribou-Targhee National Forest, Idaho Falls, Id.

USDA Forest Service. 2003. Bear Creek Watershed Analysis, Palisades Ranger District. Document located at District office and Caribou - Targhee National Forest, Idaho Falls, Idaho. June 2003. http://www.fs.fed.us/r4/caribou-targhee/watershed/anaylsis_index.shtml

USDA, Forest Service. 2003. Biological Assessment of the effects of the High Mountain Heli-ski proposal on threatened and endangered species. Jackson and Grey's River Ranger Districts, Bridger Teton NF, Jackson Hole, Wy., and Palisades Ranger District, Caribou – Targhee Natl. Forest, Idaho Falls, Idaho.

USDA Forest Service. 2005. Lynx Analysis Units Map (2005 Revision), Caribou - Targhee National Forest. In Forest corporate database. Located at Caribou-Targhee National Forest Hdqrs, Idaho Falls, ID. March 1, 2005.

USDA Forest Service. 2006. Forest Plan Monitoring and Evaluation Report 1997-2004. Caribou-Targhee National Forest, Idaho Falls, Id.

USDA Forest Service, Caribou-Targhee National Forest. 2006. Forest Plan Monitoring and Evaluation Report – 1997-2004. Caribou-Targhee National Forest, Idaho Falls, ID. 19p.

USDA Forest Service. 2006. Forest Plan Amendment for Grizzly Bear Conservation for the Greater Yellowstone Area National Forests. Final Environmental Impact Statement. Available at all National Forests in the Greater Yellowstone Ecosystem.

USDA Forest Service. 2007. Final Environmental Impact Statement, Northern Rockies Lynx Management Direction, Volume 1.

USDA Forest Service. 2009. Letter to FS Regional Foresters, Station Directors, Area Director, IITF Director, Deputy Chiefs and WO Directors. Permitting Regulations for Take of Eagles. November 9, 2009. Washington Office, USDA, Forest Service. Wash. D.C.

USDA Forest Service. 2009 and prior. Caribou - Targhee National Forest furbearer transect data, Palisades Ranger Dist., Idaho Falls, ID.

USDA Forest Service. 2010 and prior. Caribou - Targhee National Forest database and Palisades RD observation data. GIS maps by Martha Mousel and Judy Warrick. Includes

reports documented by FS employees, Id. Dept Fish and Game employees and others. Located at CTNF Hdqrs and Palisades RD offices, Idaho Falls, ID.

USDI, Bureau of Land Management. 1998. Birds as indicators of riparian vegetation condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. BLM/ID/PT-98/004+6635. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. <http://www.npwrc.usgs.gov/resource/1998/ripveg/ripveg.htm> (Version 15DEC98).

USDI, Fish and Wildlife Service. 1986. Pacific Bald Eagle Recovery Plan. U. S. Fish and Wildlife Service, Portland, OR. 163p.

USDI Fish and Wildlife Service. 1994. The Reintroduction of Gray Wolves to Yellowstone national Park and Central Idaho - Final Environmental Impact Statement. U. S. Fish and Wildlife Service, Helena, MT.

USDI, Fish and Wildlife Service. 1999. Proposed Rule To Remove the Bald Eagle in the Lower 48 States. From the List of Endangered and Threatened Wildlife. Federal Register 64(128): 36453-36464.

USDI, Fish and Wildlife Services. 2006. Trumpeter Swan Survey of the Rocky Mountain Population, US Breeding Segment. 29pp.

USDI, Fish and Wildlife Services. 2007. Federal Register. Volume 72, #130, pages 37346-37372.

USDI, Fish and Wildlife Services, Nez Perce Tribe, National Park Service, Montana Fish, Wildlife and Parks, Idaho Fish and Game, and USDA Wildlife Services. 2007. Pages 202-235 in U. S. Fish and Wildlife Service et al. 2007. C. A. Sime and E. E. Bangs, eds. Rocky Mountain Wolf Recovery Annual Report. USFWS, Ecological Services, 585 Shepard Way, Helena, Montana. 59601. 235pp.

USDI, Fish and Wildlife Services. Federal Register. Volume 64#128, pages 36453-36464.

USDI, Fish and Wildlife Services. 2007. Federal Register, March 29, 2007. Volume 72, #60, pages 14866 to 14938

USDI, Fish and Wildlife Service. 2010. Region 4 Semi-annual Species List Update CONS-250c. Related to species presence on Caribou-Targhee National Forest listed by county. USFWS Ecological Services, Boise, Idaho.

USDI, USFWS. 2010. Bald eagle website - Migratory Birds. US Fish and Wildlife Service, Wash. DC. <http://www.fws.gov/migratorybirds/baldeagle.htm>

USDI, USFWS. 2010. Mountain Plover *Charadrius montanus* FWS website. Northern Prairie Wildlife Research Center. US Fish and Wildlife Service, Jamestown, North Dakota. <http://www.npwrc.usgs.gov/resource/birds/forest/species/charmout.htm>

USDI, USFWS. 2011. Interior Announces Proposed Settlement of Gray Wolf Lawsuit – Including Terms of Proposed Agreement regarding Endangered Species Act (ESA) Protections

for Gray Wolves in the Northern Rocky Mountains. Contact: K.Barkoff & C.Tollefson. Mtn-Prairie Region, US Fish and Wildlife Service, Wash. DC.

<http://www.fws.gov/mountain-prairie/species/mammals/wolf/>

USDI, Fish and Wildlife Service, Nez Perce Tribe, National Park Service, Montana Fish, Wildlife & Parks, Blackfoot Nation, Confederated Salish and Kootenai Tribes, Idaho Fish and Game, and USDA Wildlife Services. 2010. Rocky Mountain Wolf Recovery 2009 Interagency Annual Report. C.A. Sime and E. E. Bangs, eds. USFWS, Ecological Services, 585 Shepard Way, Helena, Montana. 59601. http://www.fws.gov/mountain-prairie/species/mammals/wolf/annualrpt09/FINAL_2009_Northern_Rockies_Summary_and_Background_3_3_10.pdf

Vieira, M.E.P. 2000. Effects of Early Season Hunter Density and Human Disturbance on Elk Movement in the White River Area, Colorado. Master of Sci. Thesis, Colorado State University.

Ward, Dick. 1988. Ranger Conservationist. Palisades Ranger District in 1970's-1980s. Reported early April sage grouse group in Fall Creek. Palisades RD and IDFG CDC record. Idaho Falls, Id.

Washburn, B.E., J.J. Millspaugh, J.H. Schulz, S.B. Jones and T. Mong. 2003. Using fecal glucocorticoids for stress assessment in mourning doves. *The Condor* 105: 696-706. The Cooper Ornith. Soc.

Wasser, S.K., K Bevis, G. King and E. Hanson. 1997. Noninvasive physiological measures of disturbance in the northern spotted owl. *Conservation Biology* 11 (4): 1019-1022. August 1997.

Wasser, S. K., K. E. Hunt, J. L. Brown, K. Cooper, C. M. Crockett, U. Bechert, J. J. Millspaugh, S. Larson, and S. L. Monfort. 2000. A generalized fecal glucocorticoid assay for use in a diverse array of nondomestic mammalian and avian species. *General and Comparative Endocrinology* 120:260–275.

Wasser, S. K., and K. E. Hunt. 2005. Noninvasive measures of reproductive function and disturbance in barred owl, great horned owl, and northern spotted owl. *Annals New York Academy of Sciences* 1046:1–29.

Weaver, J. 1993. Lynx, wolverine, and fisher in the western United States: research assessment and agenda. USDA Forest Service Intermountain Research Station Contract Number 43-0353-2-0598. Missoula, MT.

Weber, K.T. 1996. Identifying landscape elements in relation to elk kill sites in western Montana. Missoula, MT: University of Montana. 13 p. Thesis.

Webster, Robert L. 1972-74 (compiled during these dates). Caribou History I, Early History of the Caribou Area (Caribou National Forest). Webster compiled many records and references from the advent of white trappers in East Idaho in 1818 up until 1945. Manuscript. Caribou-Targhee NF, Idaho Falls, Idaho.

Whitcomb RF, Robbins CS, Lynch JF, Whitcomb BL, Klimkiewicz MK, Bystrak D (1981) Effects of forest fragmentation on avifauna of the eastern deciduous forest. In: Burgess RL,

Sharpe DM (eds) Forest island dynamics in man-dominated landscapes. Springer, Berlin Heidelberg New York, pp 125-205.

Whitfield, M. B., S. Austin, J. Copeland, J. Naderman, J. Gardetto, K. Rice, R. McFarling, D. Trochta, R. Welch, B. Aber, B. Alford (and others various years). 1988 - 2009. Bald Eagles of Eastern Idaho - Greater Yellowstone Ecosystem - Annual Productivity Reports. U. S. BLM-Idaho Falls, U. S. Forest Service-Targhee National Forest, Idaho Dept. of Fish and Game, Northern Rockies Conservation Cooperative.

Whitfield, M. B. and K Coburn. 1999. Sighting and observation of Canada Lynx and tracks in Pine Creek. Unpub. Report. Dates: Jan. 27-30, 1999. Coburn saw lynx and lives in Victor, ID, Whitfield in Tetonia, ID, Observation is on Idaho CDC database in Boise, ID.

Whitfield, M.B. 2010 and prior. Personal communication. Wildlife biologist. Heart of the Rockies Initiative. Bald eagle monitoring cooperater with CTNF. Driggs, Idaho.

Whitfield, M.B. and Sue Miller. 2010 and prior. Personal communication and biological consultation on Palisades and South Fork Snake River bald eagle territories. Mike Whitfield - Conservation Biologist, Heart of the Rockies Initiative, Tetonia, ID, and Research Associate with Northern Conservation.Cooperative.

Wilcove, D.S. 1985. Nest predation in forest tracts and the decline of migratory songbirds. *Ecology* 66:1211-1214.

Wilkins, K.T. 1982. Highways as barriers to rodent dispersal. *Southwest Naturalist* 27(4):459-460.

Winther, Harold. 2005 and prior. Rancher adjacent to Palisades Ranger District and sage grouse enthusiast. Pers. Comm. and data reports to FS and IDFG. Idaho Falls, Id.

Wisdom, M.J. 2007. Shift in Spatial Distribution of Elk Away from Trails Used by All-Terrain Vehicles. Report 1, May 2007, USDA Forest Service, Pacific Northwest Research Station, La Grande, OR.

Wisdom, M.J., H.K. Preisler, N.J. Cimon, and B.K. Johnson. 2004. Effects of off-road recreation on mule deer and elk. *Transactions of the North American Wildlife and Natural Resource Conference* 69:531-550.

Witmer, Gary W.; Martin, Sandra K.; Saylor, Rodney D. 1998. Forest carnivore conservation and management in the interior Columbia basin: issues and environmental correlates.. Gen. Tech. Rep. PNW-GTR-420. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 51 p. (Quigley, Thomas M., ed.; Interior Columbia Basin Ecosystem Management Project: scientific assessment).

Zande, A. N. van der, J. C. Berkhuisen, H. C. van Latesteijn, W. J. ter Keurs, and A. J. Poppelaars. 1984. Impact of outdoor recreation on the density of a number of breeding bird species in woods adjacent to urban residential areas. *Biological Conservation* 30:1-39.

Zande, A. N. van der, and P. Vos. 1984. Impact of a semiexperimental increase in recreation intensity on the densities of birds in groves and hedges on a lake shore in The Netherlands. *Biological Conservation* 30:237–259.

Plant Species Diversity

Fertig, Walter, Rick Black & Paige Wolken. 2005. Rangewide Status Review of Ute ladies'-tresses (*Spiranthes diluvialis*). Prepared for the US Fish and Wildlife Service and Central Utah Water Conservancy District. Salt Lake City, UT.

Idaho Conservation Data Center (CDC). 2006. 2005 Ute ladies'-tresses (*Spiranthes diluvialis*) monitoring on the South Fork Snake River, Idaho: fourth year results. Idaho Department of Fish and Game, Conservation Data Center. 36 pp.

Jones, George P. 2000. 1999 Survey of BLM-Managed Lands Along the Snake River in Jackson Hole, Wyoming for Ute Ladies Tresses (*Spiranthes diluvialis*). Report prepared for the BLM Wyoming State Office. Wyoming Natural Diversity Database, University of Wyoming. Laramie, WY.

Moseley, Robert K. 1997. 1997 Ute ladies'-tresses (*Spiranthes diluvialis*) Inventory: Snake River Corridor and other selected areas. Idaho Department of Fish and Game. Conservation Data Center. Boise, ID.

USDA Forest Service, Caribou-Targhee National Forest. 2005. March 2005 Caribou-Targhee National Forest Streamlining Notes. Unpublished meeting notes on file at the Caribou-Targhee Headquarters Office. Idaho Falls, ID.

Varga, Klara & R. Lehman. 1999. 1998 Ute ladies'-tresses (*Spiranthes diluvialis*) Inventory on the Targhee National Forest. Unpublished report on file at the Caribou-Targhee Headquarters Office. Idaho Falls, ID.

Varga, Klara & R. Lehman. 2000. 1999 Ute ladies'-tresses (*Spiranthes diluvialis*) Inventory on the Targhee National Forest. Unpublished report on file at the Caribou-Targhee Headquarters Office.. Idaho Falls, ID.

Heritage Resources

American Antiquities Act of 1906 as amended (16 USC 2101-2106).

Archaeological Resources Protection Act (ARPA) (16 USC 470aa-mm).

Freedom of Information Act of 1982 (FOIA) (5 USC 552).

Historic Sites Act of 1935 as amended (16 USC 461-467).

Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) as amended, (25 USC 3001 et seq.).

National Historic Preservation Act (NHPA) (16 USC 470 et seq) [a National Park Service annotation of the act as amended through December 31, 2000].