

# Environmental Assessment for Proposed Improvements at the Brooks Lake Lodge and Guest Ranch

February 27, 2002

**Proposed Action and Location:**

Brooks Lake Lodge and Guest Ranch  
Improvement Project  
Wind River Ranger District  
Shoshone National Forest

**Lead Agency:**

USDA Forest Service  
Shoshone National Forest  
225 West Yellowstone Avenue  
Cody, Wyoming 82414

**Responsible Official:**

Rebecca Aus, Forest Supervisor  
Shoshone National Forest  
225 West Yellowstone Avenue  
Cody, Wyoming 82414

**For Further Information:**

Burnie Davison, District Ranger  
Wind River Ranger District  
P.O. Box 186  
1403 West Ramshorn  
Dubois, Wyoming 82513-0186  
307-455-2466

## Summary

Brooks Lake Lodge resort (BLL), owned by BL Properties, has applied to the Shoshone National Forest (SNF) for authorization to make improvements to the resort located in the Wind River Ranger District. The Lodge is located off Highway 26/287, 33 miles east of Moran Junction and 23 miles west of Dubois. This Environmental Assessment (EA) analyzes and discloses the potential environmental effects of issuing authorization to make these improvements. BLL's proposal consists of three components: 1) the construction of two additional guest cabins; 2) the construction of a new spa facility to replace the existing spa; and 3) the creation of a small pond. These improvements were proposed in the Brooks Lake Lodge Master Development Plan (BL Properties 2000) and would be located adjacent to the existing facilities within the 25-acre BLL special use permit area. Issues raised during the scoping process included impacts to biological resources, including wildlife; historical and visual resources; recreation and economic viability; and vegetation disturbance and potential soil erosion. These issues are addressed in relationship to the two alternatives being analyzed: No Action and Proposed Action. The No Action Alternative, as the name implies, allows for no additional building to occur. The Proposed Action Alternative would allow implementation of BLL's proposal. This document discusses the purpose of and need for the Proposed Action, describes the effected environment, details the potential effects of implementing each alternative, and identifies potential mitigation measures to lessen impacts.

# Table of Contents

<b>Chapter 1 Purpose of and Need for Action .....</b>	<b>1-1</b>
1.1 Introduction .....	1-1
1.2 Proposed Action .....	1-1
1.3 Purpose and Need .....	1-1
1.4 Decisions to be Made.....	1-4
1.5 NEPA Process .....	1-5
1.6 Public Involvement and Issues to be Considered.....	1-5
1.7 Required Permits and Approvals .....	1-6
<b>Chapter 2 Proposed Action and Alternatives .....</b>	<b>2-1</b>
2.1 Alternatives Considered.....	2-1
2.1.1 No Action Alternative.....	2-1
2.1.2 Proposed Action .....	2-1
<b>Chapter 3 Affected Environment and Environmental Consequences</b>	<b>3-1</b>
3.1 Vegetation and Wetland Resources.....	3-1
3.1.1 Existing Conditions.....	3-1
3.1.2 Environmental Consequences.....	3-3
3.2 Water Resources .....	3-3
3.2.1 Existing Conditions.....	3-4
3.2.2 Environmental Consequences.....	3-5
3.3 Wildlife Resources.....	3-5
3.3.1 Existing conditions .....	3-6
3.3.2 Environmental Consequences.....	3-6
3.4 Historical and Visual Resources.....	3-9
3.4.1 Existing Conditions.....	3-9
3.4.2 Environmental Consequences.....	3-9
3.5 Recreational and Economic Resources.....	3-11
3.5.1 Existing Conditions.....	3-11
Activity .....	3-12
3.5.2 Environmental Consequences.....	3-13
3.6 Cumulative Effects .....	3-14
<b>Chapter 4 References .....</b>	<b>4-1</b>
<b>Chapter 5 Agencies and Persons Consulted .....</b>	<b>5-1</b>
5.1 Forest Service Personnel.....	5-1
5.1.1 Project Management .....	5-1
5.1.2 Specialists .....	5-1
5.2 Consultants.....	5-2
5.2.1 Cirrus Ecological Solutions, LC.....	5-2
5.2.2 Metcalf Archaeology .....	5-2
5.3 Brooks Lake Lodge Representatives .....	5-2
5.4 Other Agencies Consulted .....	5-2

## **Chapter 1 Purpose of and Need for Action**

### **1.1 Introduction**

The Shoshone National Forest (SNF) has received an application from BL Property, LLC requesting authorization to make improvements to the Brooks Lake Lodge resort located on the Wind River Ranger District. This Environmental Assessment (EA) analyzes and discloses the potential environmental effects of issuing an authorization to make these improvements.

The Brooks Lake Lodge & Guest Ranch was originally constructed in 1922 to serve travelers on their way to Yellowstone National Park. Between 1922 and the early 1980s, the lodge underwent a series of owners and name changes. In 1981, a major restoration effort was undertaken to repair and renovate the deteriorated log lodge. Most recently, Brooks Lake Lodge came under new and current ownership in December 1999, when it was purchased by BL Property. The Lodge is located off Highway 26/287, 33 miles east of Moran Junction and 23 miles west of Dubois (Figure 1.1). The Lodge and supporting facilities are on the southern shore of Brooks Lake. The main lodge building is sited in a mountain meadow overlooking the lake, while the six existing guest cabins and support facilities sit at the edge of a spruce-pine forest.

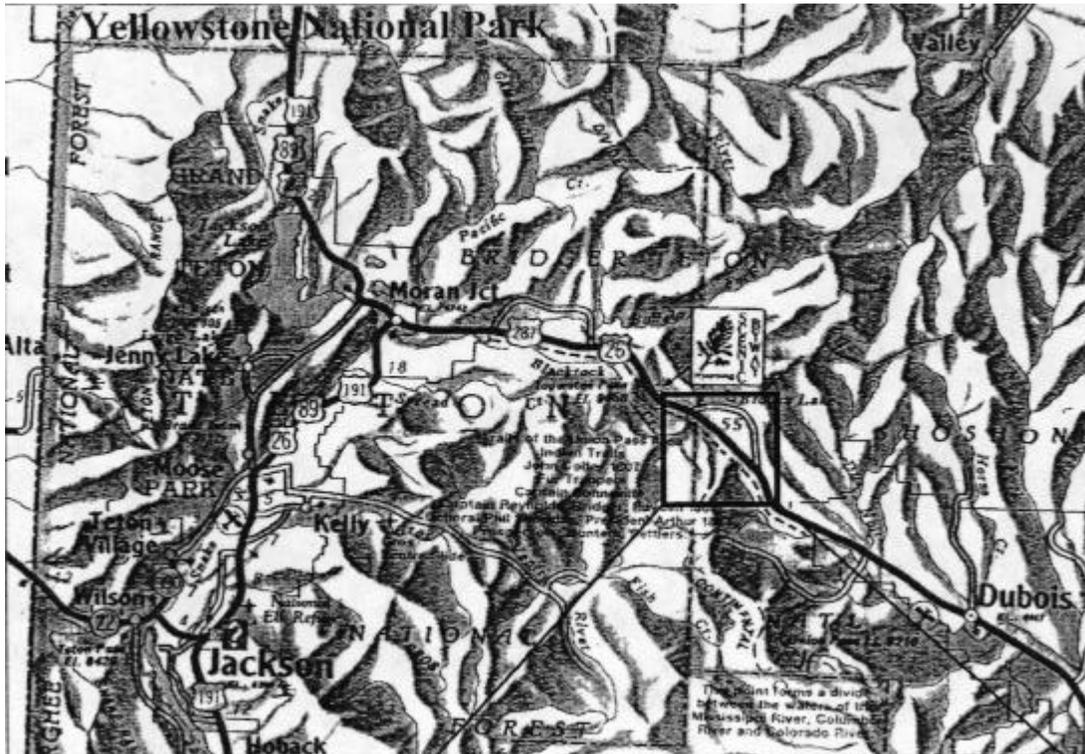
### **1.2 Proposed Action**

The Proposed Action consists of three components: 1) the construction of two additional guest cabins; 2) the construction of a new spa facility to replace the existing spa; and 3) the creation of a small pond (Figure 1.2). These improvements were proposed in the Brooks Lake Lodge Master Development Plan (BL Properties 2000) and would be located adjacent to the existing facilities within the 25-acre Brooks Lake Lodge special use permit area.

This proposal was reviewed by the Forest Service and found to be consistent with the overall Forest Service policy and legal mandates directing the allocation, use, and management of National Forest System (NFS) lands. Specifically, the proposal is consistent with the management direction and standards and guidelines that direct activities within the National Forest.

### **1.3 Purpose and Need**

The SNF Land and Resource Management Plan (Forest Plan) sets goals for the SNF and identifies the desired future condition for resources within the SNF (USDA-FS 1986). Part of the desired future condition includes providing a range of quality recreational opportunities on the SNF. This proposal is being analyzed as one step in meeting that goal.



Copyright© 1997 by Wyoming Transportation Commission, Cheyenne, WY

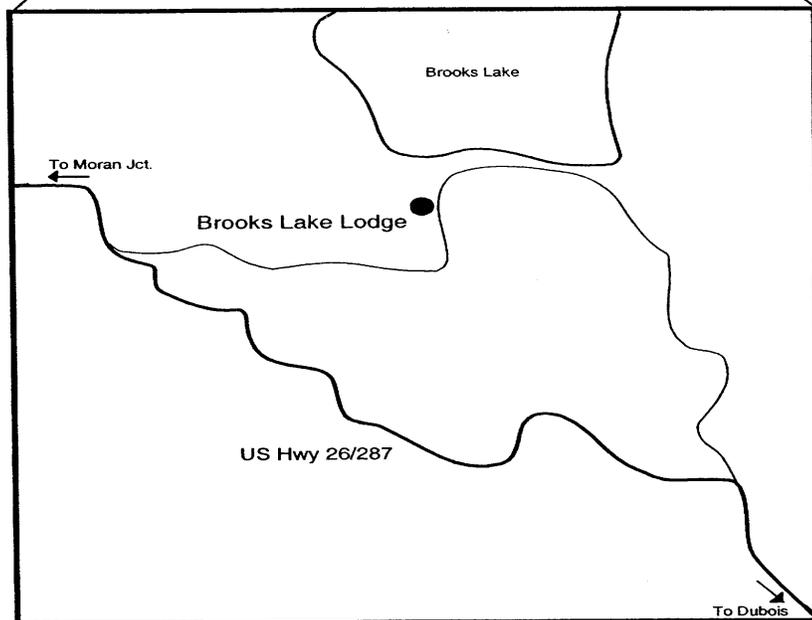


Figure 1.1. Brooks Lake Lodge Location Map.

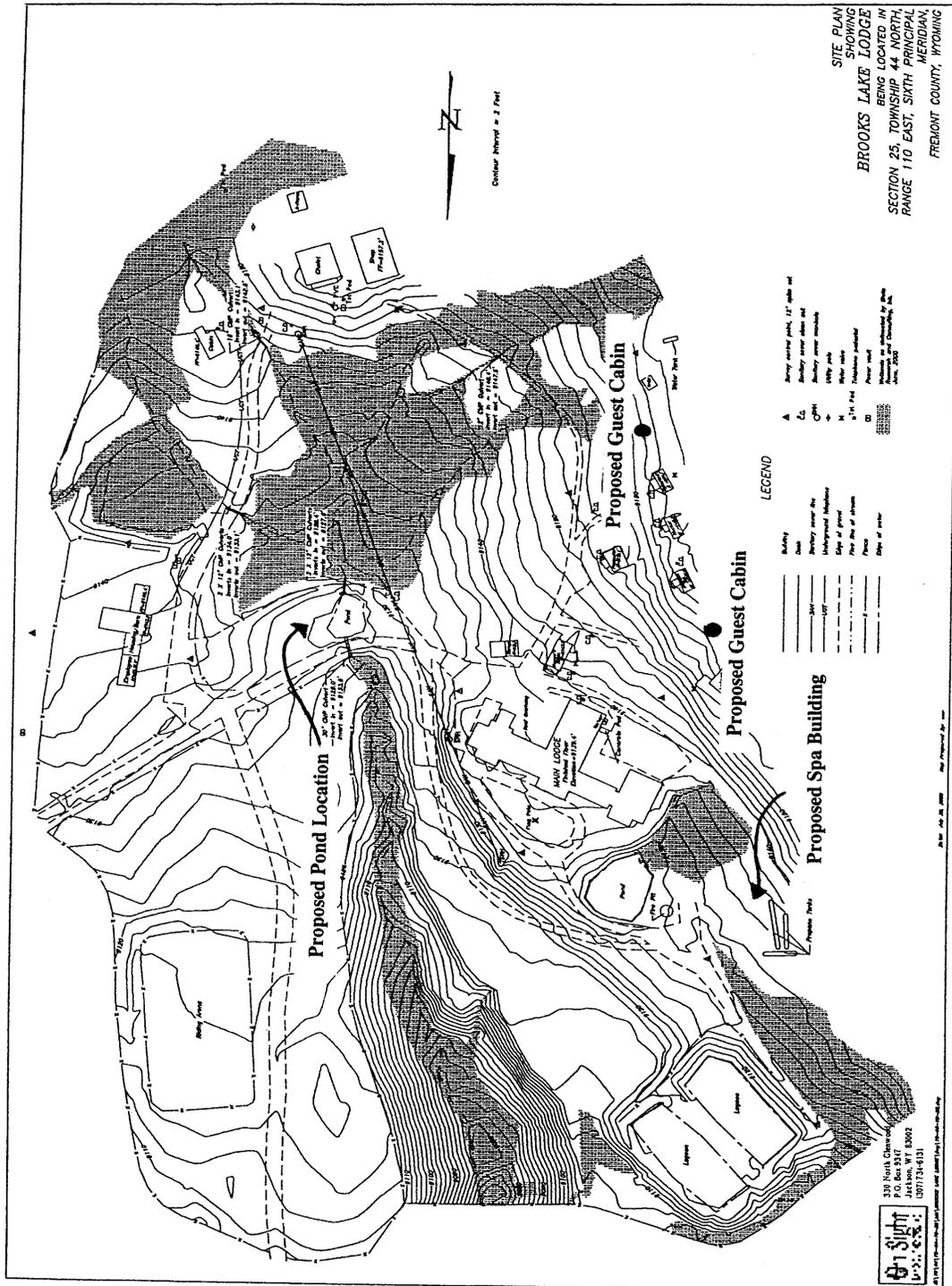


Figure 1.2. Proposed Action

The Forest Plan reports that there are 17 developed recreation sites within the Forest Boundary that are owned or administered by private entities (USDA-FS 1986, p. II-34). These sites include guest ranches and lodging facilities, and have an estimated capacity of 889 persons at one time (PAOT). The Forest Plan points out that the current conditions of many of the facilities are below the level described in the Regional Acceptable Work Standards (FSM 1310 R-2 ID No. 1, July 22, 1982). The Management Area Direction in the Forest Plan for the management of developed recreation sites directs that developed sites should be maintained in accordance with the Regional Acceptable Work Standards (USDA-FS 1986, p. III-105). Providing safe developed recreational facilities for visiting guests is one of the goals outlined in the Forest Plan.

An inventory of the supply versus demand for Brooks Lake Lodge identified a need for additional guest services at Brooks Lake Lodge. Currently, the demand during the summer (July through September) season exceeds the guest capacity of the lodge and associated cabins. Current permitted capacity is 26 overnight guests in the cabins and lodge rooms. Average summer occupancy reaches 90 percent with many of the prime weeks selling out. Further, it is anticipated that with increased snowmobile use in the region, there will be an increase in the demand for the lodge and associated facilities during the winter season as well. The purpose of this proposal is to better match capacity of the lodge and cabin facilities to public demand and to complement the range of recreational opportunities on the SNF.

Individual components of the proposal would meet specific purpose and need objectives, including improvements to the guest programs, facilities, and services. The proposed cabins would increase the guest capacity of the site and further meet the public demand. The proposed spa facility would complement the guest services at the facility by allowing Brooks Lake Lodge to meet the growing demand for the full range of services offered at full service guest ranches, including massage therapy, Jacuzzi, steam room, sauna, and an exercise area.

Finally, because of the remote location of the lodge and its cultural significance, it is essential that the permittee maintain adequate infrastructure for fire suppression. A critical part of this infrastructure is adequate water storage near the structures on the property. The proposed pond would provide the water storage needs for summer and fall firefighting capability at the resort, in addition to providing aquatic habitat and aesthetics near the lodge.

#### **1.4 Decisions to be Made**

This EA is not a decision document. The primary purpose of this document is to A(1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. (2) Aid an agency's compliance with the National Environmental Policy Act (NEPA) when no environmental impact statement is necessary. (3) Facilitate preparation of a statement when one is necessary. {40 CFR 1508.9(a)}.@ As the lead agency for this EA, the Forest Service will document their decisions pertinent to actions on NFS lands in a Decision Notice with a Finding of No Significant Impact, given that no environmental impact statement needs to be prepared.

The Forest Service will document the following decisions for this assessment: 1) Whether or not to authorize the implementation of the Proposed Action, or the No Action alternative; and 2) what mitigation and monitoring, if any, to require.

## **1.5 NEPA Process**

Because BL Property=s proposal to make improvements at Brooks Lake Lodge would involve NFS lands, and since issuing an approval to do so could potentially result in adverse environmental impacts, the National Environmental Policy Act of 1969, as amended (NEPA), requires the Forest Service to assess and disclose the potential impacts of issuing the approval. NEPA requires that complete environmental information be made available to federal, state, and local agencies, organizations, and individuals who may be interested in or affected by the proposed action. Opportunities to review and comment on this information must be provided before decisions are made or actions are taken on public lands.

This EA is being prepared in response to these requirements. If significant environmental impacts (40 CFR 1508.27) are identified at any point in this EA process, the EA will be discontinued and an environmental impact statement will be prepared.

An EA is a disclosure rather than a decision document. Its primary purpose is to provide environmental analysis to inform the public and to assist the Forest Service in reaching a decision, documented in a Decision Notice (DN) to approve a proposed action or an alternative to it.

Following publication of this EA, public and agency comments will be accepted for 30 days. Subsequently, the Forest Service will review comments and respond to them as appropriate, either in a separate document, in a revised EA, or in the DN. If no comments are received, the DN/Finding of No Significant Impact (FONSI) will be issued and implementation of the decision can occur within 10-15 days. If no significant impacts have been identified during the comment period, the agency will prepare a FONSI documenting this finding. The final EA and DN/FONSI will then be published, followed by a 45-day period during which the agency=s decision can be administratively appealed in accordance with procedures outlined in 36 CFR 215. The Responsible Official making this decision will be the SNF Forest Supervisor.

Council on Environmental Quality (CEQ) Regulations on the application of NEPA strongly encourage federal agencies to advise private applicants of any environmental studies and information requirements that may be required to support agency review and decision making (40 CFR 1501.2[d]). The objective is to ensure that the planning of proposed actions reflects the environmental values of an area, minimizes potential conflicts, and avoids delays in completing NEPA analysis. Agencies are further directed to utilize information collected by applicants, their consultants, or other parties as long as the agency makes an independent evaluation of the content and scientific credibility of the information (40 CFR 1506.5[c]). All such information used in this EA has undergone such evaluation by the Forest Service prior to being used in this analysis.

In accordance with CEQ Regulations (40 CFR 1506.5[c]), this EA was prepared under a third-party arrangement with the assistance of Cirrus Ecological Solutions, LC, of Logan, Utah.

## **1.6 Public Involvement and Issues to be Considered**

NEPA requires that the public and other agencies be involved in federal agency decision making. An important part of this process is scoping. CEQ regulations refer to scoping as a process to determine the scope of the issues to be addressed in an EIS and to identify the significant issues related to a proposed action (40 CFR 1501.7). Scoping for this project began on February 9, 2001 with the publication and mailing of a scoping

notice to interested parties and remained open through March 14, 2001. Six comment letters were received in response to the scoping notice. Based on public and agency comment, the following issues were identified:

*Issue 1: Impacts to Biological Resources, Including Wildlife.* Brooks Lake Lodge is located in Yellowstone Ecosystem Grizzly Bear Recovery Area. Bringing additional development and guests into a grizzly recovery area and potential human-bear conflicts were identified as issues. Potential impacts to other sensitive resources were also noted as an issue.

*Issue 2: Historical Resources.* Brooks Lake Lodge is listed on the National Register of Historic Places. Since this project would involve construction of new buildings near a building on the National Register, impacts to any historical integrity of the area and other historical resources that may be present were identified as a potential issue to be addressed in this analysis.

*Issue 3: Visual Impacts.* The potential for inappropriately designed new buildings among the existing log structures could impact the visual character of the area.

*Issue 4: Economic Viability.* The cyclical nature of the tourism business and its potential to affect the economic viability of the lodge operation was raised as an issue.

*Issue 5: Recreation.* Potential increases in the number of summer and winter visitors could affect the quality of the recreation experience.

*Issue 6: Vegetation Disturbance and Potential Soil Erosion.* This project would result in vegetation removal and soil disturbance. Disturbed soil surfaces can be susceptible to soil erosion during runoff events, which was identified as a potential issue to be addressed in this analysis.

*Issue 7: Water Resources.* The proposal for creating an instream pond and constructing more buildings will affect local stream ecology and storm water runoff.

## **1.7 Required Permits and Approvals**

This EA is intended to provide analysis to support decisions to be made by the Forest Service and other agencies with permitting authority over construction of the proposed improvements. The Forest Service decision to authorize this work would apply only to NFS lands. However, potential effects resulting from implementation of the proposed action and alternatives on lands and activities administered by other federal, state, and local jurisdictions are also disclosed in this document. Other permits and approvals may be required. While the Forest Service assumes no responsibility for enforcing laws, regulations, or ordinances under the jurisdiction of other governmental agencies, Forest Service regulations require that permittees abide by applicable laws and conditions imposed by other jurisdictions.

## **Chapter 2 Proposed Action and Alternatives**

This chapter describes two alternatives to be analyzed in detail: the No Action Alternative, as required by NEPA, and the Proposed Action, which addresses in detail the proposed improvements. The No Action Alternative provides the baseline for which impacts of the Proposed Action are compared. The Proposed Action was accepted by the Forest Service and is based on the purpose and need statement articulated in Chapter 1. Each component of the Proposed Action addresses shortcomings in services and infrastructure at the existing lodge. Due to the limited number of issues identified during scoping and the scale of the proposed improvements, no issue-driven alternatives were developed beyond the Proposed Action.

### **2.1 Alternatives Considered**

#### **2.1.1 No Action Alternative**

The No Action Alternative would not allow the construction of the new spa building, the two cabins, or the pond. Existing facilities at the site would continue to operate under the current special use permit. Activities at the site that have been previously approved would be allowed to continue. For example, some improvements, including interior and exterior remodeling at the lodge and existing structures which do not require approval through this process, as well as other routine maintenance, could take place.

#### **2.1.2 Proposed Action**

The Proposed Action consists of three elements: the construction of two new guest cabins, the construction of a new spa building, and the construction of a pond. Each element is in response to specific needs identified in the purpose and need statement for this project, as detailed in Chapter 1.

The guest cabins would be approximately 30 feet by 40 feet in their exterior dimensions. The addition of the two proposed cabins would increase the number of cabins at the site from six to eight, and would increase guest occupancy from the existing capacity of 28 to 36 people. In order to minimize impacts to the visual environment and to preserve historic integrity, cabins would be constructed in a style consistent with existing log and natural wood structures on the site. Timber and quarried stone used for construction would be harvested locally, but off Forest Service property. The final design of the buildings would rely on heavy timber detailing and low-key rooflines to integrate with the surrounding landscape. One of the new cabins would be constructed to the south of the existing cabins, while the second would be constructed to the north of the existing cabins. Review of the proposed cabin placement determined that one of the proposed cabins would potentially impact a portion of the wetland resource. After further review it was determined that another site location for one of the cabins would avoid any wetland disturbance. The cabin site avoiding any disturbance to wetlands became part of the Proposed Action.

The proposed spa building would be located northwest of the existing main lodge (Figure 1.2). The initial proposal received by the Forest Service contained conceptual drawings of the spa building. That design of the spa building was inconsistent with the historical character of the lodge and other buildings on the Brooks Lake Lodge site. As a result, that design was eliminated and replaced by the current design, which is a replica of the existing lodge building, but would be a smaller structure approximately 3,100 square feet in size. The building would be designed to integrate the architectural features of the structure with both the overall style of the property and the existing natural features of the site.

The proposed pond would be placed in the small stream that flows through the special use permit area and into Brooks Lake (Figure 1.2). The pond would consist of a lined basin excavated behind a low, earthen berm designed to minimize visual impacts. The pond profile would be designed to provide a variety of water depths. The bank and shoreline would have gentle contours that would be planted with riparian vegetation to establish a functioning wetland community. A small pump house and a fire hydrant beside the pond would provide water for a summer/fall fire emergency. The Army Corps of Engineers has issued General Permit 97-01 authorizing construction of this pond.

## **Chapter 3 Affected Environment and Environmental Consequences**

This chapter provides a description of the existing conditions associated with each resource or issue identified in Chapter 1. This background information establishes the context for analysis and disclosure of potential effects to these resources that would occur with each alternative. Environmental effects are described in terms of direct, indirect, and cumulative impacts. Direct impacts include those that are caused by the action and occur at the same time and place. Indirect impacts are also caused by the action, but occur later in time or are further removed in distance. Cumulative impacts occur as the effects of the Proposed Action combine with other past, present, and reasonably foreseeable actions.

### **3.1 Vegetation and Wetland Resources**

#### **3.1.1 Existing Conditions**

The project area for vegetation resources is defined as the BLL Special Use Permit Area. This area is located in a mountain meadow at approximately 9,100 feet on the south end of Brooks Lake. Brooks Lake is located west of Pinnacle Peaks in the Absaroka Mountains. Three main habitat types occur in the project area: montane meadow, spruce forest, and wetland meadow/willow scrub.

Montane meadow is the dominant habitat type within the analysis area. Wetlands occurring within the montane meadow habitat type and are discussed separately below. Common species characterizing this habitat type include mountain brome, cinquefoil, violet, strawberry, yarrow, clover, and dandelion, as well as other forbs and grasses. The existing facilities at BLL are located in the meadow habitat type.

The spruce forest habitat type occurs around the edges of the meadow. The forest floor is heavily shaded and the understory is limited to shade-tolerant species. This community has a limited understory with a high percentage of bare ground/duff. Species observed in the understory, particularly around small openings, include strawberry, dandelion, parrot's beak, lupine, and golden rod.

Wetlands within the analysis area were delineated in 2000 (Biota 2000). The report documenting this delineation identifies 5.08 acres of wetland habitat associated with streams and springs. This total includes 3.5 acres of herbaceous meadow wetland, characterized by bluebells, tufted hairgrass, marsh marigold, arrow-leaf gounsel, sedges, buttercup, globeflower, and meadow barely, and 1.58 acres of shrub-scrub wetland, characterized by willow with an understory of the same species found in the meadow wetland (Biota 2000).

No federally listed threatened, endangered, or candidate plant species are known to occur on the Shoshone National Forest (Hinschberger 2001). The R-2 Regional Forester's Sensitive Species List for the Shoshone National Forest includes 17 plant species. A probability of occurrence analysis based on habitat requirements reported in the Wyoming Rare Plant Field Guide (Fertig 1994) was completed for the Forest Sensitive Species for the BLL project area (Table 3.1). Based on this analysis, two species (pink agoseris and upward-lobed moonwort) have a moderate occurrence probability. A survey of the project area was completed on July 21, 2001 to determine if either of these plants were present. A population of pink agoseris of approximately 80 individuals in six small groups was located around the existing propane tanks. Upward lobed moonwort was not located during the surveys. A complete analysis of Forest Service Sensitive Species is contained in the Biological Assessment prepared for this project (Cirrus 2001).

**Table 3.1. Probability of Occurrence Analysis of Sensitive Species for the Brook's Lake Lodge Project Area. R-2 Region Forester's Sensitive Species List for the Shoshone National Forest.**

Species	Common Name	Habitat Requirements	Suitable Habitat Present	Documented Occurrence	Occurrence Probability
<i>Agoseris lackschewitzii</i>	Pink agoseris	Wet montane and subalpine meadows, elev. 9,600-10,600 ft.	Yes.	Yes	Present
<i>Amerorchis rotundifolia</i>	Round-leaved orchid	Moist, mossy seepage areas in conifer forests, often associated with white spruce, elev. 6,600 - 6,800 ft.	No	No	None
<i>Arctostaphylos rubra</i>	Red manzanita	Moist, but not flooded, calcareous sites dominated by low shrubs bordering white spruce swamp forests, elev. 6,600 ft.	No	No	None
<i>Botrychium ascendens</i>	Upward-lobed moonwort	Moist meadows or thickets in mountains, elev. 8,000 ft.	Yes	No	Moderate
<i>Carex livida</i>	Livid sedge	Floating mats, bogs, and fens, elev. 6,400 - 6,500 ft.	No	No	None
<i>Descurainia torulosa</i>	Wind River tansy-mustard	Rocky places in high mountains.	No	No	None
<i>Festuca hallii</i>	Hall's fescue	Meadows, slopes, and open woods on limestone substrates, elev. 7,400 - 10,500 ft.	No	No	None
<i>Ipomopsis spicata</i>	Kirkpatrick ipomopsis	Sandy to rocky scree derived from andesite volcanic rock, elev. 7,200 - 13,000 ft.	No	No	None
<i>Lesquerella fremontii</i>	Fremont's bladderpod	Rocky limestone slopes and ridges, elev. 7,000 - 9,000 ft.	No	No	None
<i>Muhlenbergia glomerata</i>	Marsh muhly	Calcareous bogs, springs, peaty meadows, floating mats, stream edges, and shores, elev. 4,700 - 6,000 ft.	No	No	None
<i>Parrya nudicaulis</i>	Naked-stemmed wallflower	Alpine talus, often on limestone substrates, elev. 10,700 - 11,400 ft.	No	No	None
<i>Primula egaliksensis</i>	Greenland primrose	Calcareous wet meadows along streams and montane bogs, elev. 6,600 - 8,000.	No	No	None
<i>Pyrrocoma carthamoides</i> var. <i>subsquarrosus</i>	Absorka goldenweed	Open meadows, slopes, and ridges on sandstone or limestone substrates, elev. 6,400 - 10,300 ft.	No	No	None
<i>Salix myrtillofolia</i> var. <i>myrtillofolia</i>	Myrtle-leaf willow	Calcareous lake and streambanks, floodplains thickets, bogs, and moist white spruce forest, elev. 6,600 ft.	No	No	None
<i>Scirpus rollandii</i>	Rolland's bulrush	Calcareous montane bogs, elev. 6,600 ft.	No	No	None
<i>Shoshonea pulvinata</i>	Shoshonea	Shallow, stony calcareous soils of exposed limestone outcrops, ridgetops, and talus slopes, elev. 5,900 - 9,200 ft.	No	No	None
<i>Townsendia condensata</i> var. <i>anomala</i>	Cushion townsend-daisy	Sparsely vegetated rocky slopes and ridges, elev. 6,500 - 12,000 ft.	No	No	None

### 3.1.2 Environmental Consequences

**No Action.** Under the No Action Alternative, BLL would continue to operate with the facilities that currently exist at the resort. No new facilities would be built, although some improvements to existing structures and infrastructure disclosed previously in Chapter 2 that were previously approved could be completed. Any effects to vegetation associated with these elements were considered previously as part of their analysis and approval.

**Proposed Action.** Under the Proposed Action, two cabins, a spa building, and a pond would be built. One cabin would be located in the montane meadow, and the second would be located in a small clearing in the spruce forest where a structure was located in the past. Each cabin would disturb approximately 1,600 square feet. The spa building would be located in the montane meadow and would disturb approximately 4,000 square feet. Direct impacts associated with the construction of the buildings would be limited to the building footprint, a small buffer around the site, and a footpath to the buildings. Indirect impacts would be limited, but could include additional trampling of vegetation around the buildings and other places where activities are concentrated. The proposed location of the buildings would not affect wetlands (Biota 2000).

The pond would be built in the montane meadow on the stream that flows through the property. Part of the building site for the pond was delineated as a wetland (Biota 2000). Construction of this pond would impact approximately 1 acre, of which, 0.441 are jurisdictional wetland. These wetlands would be affected through excavation, inundation, and filling. The Corps of Engineers has authorized this work under General Permit 97-01. Wetland impacts would be mitigated through the design of the pond, which includes gentle slopes and shallow water depths of less than four feet to allow wetland to reestablish around the pond, limited water depths deeper than 6 feet, and replanting the shoreline and shallow water areas with native wetland species taken from onsite.

The two Sensitive species that occur or could occur in the analysis area, pink agoseris and upward-lobed moonwort, are both commonly found in wetland habitats. Under the proposed action, approximately 35 individual stems of pink agoseris would be impacted by the construction of the spa building. Although construction of the pond would affect wetlands, none of the Sensitive species were present within the footprint of the proposed pond. Construction of the remaining structures was determined not to impact these Forest Service Sensitive Plant species. The Biological Evaluation prepared for this project (Cirrus 2001) determined that the proposed project *would impact individuals but is not likely to cause a trend toward Federal listing or a loss of viability.*

Potential impacts associated with soil disturbance include the potential for erosion and sediment transport. Due to the flatness of the terrain, the potential for soil movement is generally low. The primary concern for soil movement would be during the construction of the pond. To mitigate this potential impact, BLL would be required to follow standard watershed conservation practices during construction. After construction is completed, these practices would require that areas subject to temporary construction disturbance be reclaimed and reseeded during the same season construction is completed. This would also reduce the risk of weed establishment in the disturbed sites.

## 3.2 Water Resources

### 3.2.1 Existing Conditions

The geologic setting of Brooks Lake Lodge is a dramatic glaciated landscape with high mountain cirques, stream and lake filled valleys, glacial moraines and terraces, and enormous landslide mass movements. Above the lodge, cirques are sculpted in the cliff-forming massive conglomerates of the Wiggins Formation. The lodge is built on the clay-rich slopes of the Tepee Trail Formation. These slopes have been shaped to a high terrace or “bench” landform at about the 9,200-foot contour where the lodge overlooks Brooks Lake.

Many wetlands have formed in the clay-rich sediments at the site and both wetlands and stream tributaries are fed by overland flow and subirrigated by seeps and springs. A perennial tributary stream to Brooks Lake flows through the site, draining a small headwaters watershed of about 84 acres. Several branches of the unnamed tributary drain from about 0.6 mile from the headwater divide in the cliffs behind the Lodge to join at about the level of the high terrace at the site before dropping another 0.35 miles to Brooks Lake.

The small stream channels of the subwatershed at Brooks Lake Lodge are Rosgen stream classification types A5, Ba5, and G5, with gradients ranging from four to ten percent. The response to management activities that alter channel stability of these stream types is generally fair to poor (Rosgen 1996), except for the short stable reaches of B stream types. The implications for management are that these stream types exhibit high to extreme sensitivity to disturbance, very poor recovery potential, very high sediment supply and very high stream bank erosion potential.

Historic impacts at the site have affected stream health. Riparian vegetation (especially *Salix* spp.) has been disturbed or destroyed in the upper stream reaches at the site and stream channels have subsequently degraded. Previous attempts to establish an in-channel pond using heavy equipment have also been detrimental to the local stream ecology.

Several stream crossings occur on-site, including three road crossings with culverts and fill, two unarmored stream crossings, and two crossings by the BLL’s sewer line. The area disturbed by roads totals approximately 0.9 acres. An additional estimated 1.2 acres of disturbed areas and “buffers” occur around the cabins and lodge. An undesigned parking lot was constructed that disturbed about approximately 0.3 acres of wetland. BLL was notified by the Corps of Engineers of this infraction in August 2000 (Chandler Peter, pers. comm.). The “footprint” of the existing structures of the Lodge and outlying cabins affects runoff on a total of about 0.9 acres of impervious surface materials. The sewage lagoons, existing ponds, and riding arena total an additional 1.4 acres of disturbed ground at the site. The current condition for stormflow response is uncontrolled routing from disturbed areas into wetlands and streams.

Several tributaries on the west side of Brooks Lake that originate in the highlands, including the tributary that flows through the BLL permit area, merge along the shoreline approximately 0.25 miles from the lake. West Brooks Lake Creek is the main tributary of this 1,784-acre subwatershed. This creek has been adversely impacted by past livestock use and the location of the recreation trails, and was identified as an impaired stream in 1998. The stream continues to be monitored, and has not yet recovered its dynamic equilibrium.

Historically, much of the impact to this stream has been associated with BLL, including horse grazing, trampling of steamside vegetation, and the creation of numerous trails. Cattle have been excluded from this area of the upper Wind River allotment since the mid-1980’s.

### **3.2.2 Environmental Consequences**

**No Action.** Under the No Action Alternative, BLL would continue to operate with the facilities that currently exist at the resort. No new facilities would be built, including the proposed pond, although some improvements to existing structures and infrastructure disclosed previously in Chapter 2 that were previously approved could be completed.

**Proposed Action.** The new structures proposed by BLL include an additional 0.13 acres of disturbance for building sites. The storm response runoff potential is very high at the site because development and disturbed ground on slopes greater than 5 percent amounts to about five acres, close to 20 percent of the BLL's permitted 22.5 acres. In addition, it is a very wet site, with approximately 20 percent of the permitted area classified as a wetland and potentially saturated much of the year. Storm runoff from disturbed ground also contributes to erosion and sedimentation in wetlands and streams.

Stormflow response would be unacceptably high without this proposal's and the master plan's proposal to reclaim and revegetate disturbed areas at the site, to install erosion control structures and upgrade existing structures, to disconnect disturbed areas from streams and wetlands, and to minimize roading and trails and parking areas at the site.

An improved pond is proposed at the site of a previously disturbed 0.06-acre pond site. Approximately 1.0 acre would be inundated below about the 9,134-foot contour using the existing road with an extended fill (up 2 feet) as an earthen dam. The pond would extend about 200 feet upstream of the road/dam. New vegetation and potential wetlands would develop along the newly created "lake" shore. The three tributaries of the unnamed stream (BLL stream) merge at the short axis of the proposed pond. The average depth of the pond would be 4 feet, with a maximum depth of about 6 feet. The existing culvert at the road would be upgraded from an 18" to 30" corrugated metal pipe at the grade of the existing stream outlet.

The proposed pond would alter the stream gradient such that the tributaries would drain into the pond at a new base level. Sedimentation could occur, especially from the long tributary that extends about 0.6 miles upstream, as the water velocity slows in the pond due to the new stream gradient. The pond liner would create an artificial impermeable base that would affect local groundwater infiltration. The creation of a small pond would result in elevated water temperatures during the summer and a corresponding decrease in the level of dissolved oxygen. Due to its shallow depth, the pond could freeze solid in the winter. These changes in habitat, hydrologic regime, and water chemistry could effect aquatic life, as discussed in the following section.

Potential impacts could also occur below the pond. The pond could dewater the stream below the pond, particularly during dry periods, impacting riparian values such as the willow community. If the outlet of the pond is not properly armored and constructed at grade, discharge from the pond could erode the stream channel, resulting in down cutting. To the degree the pond capacity allows for flood storage, flood flows would no longer be able to access the floodplain from the site of the pond down to the lake. A potential increased flood hazard would occur when discharges exceed the capacity of the pond outlet. Severe flood flow could overtop the earthen dam, potentially eroding both the fill and the stream reach below the dam if bankfull flows are not maintained. This would affect bed and bank stability of the channel, adding sediment to the stream and lake.

### **3.3 Wildlife Resources**

### 3.3.1 Existing conditions

The analysis area for assessing direct impacts to wildlife resources is defined as the Brooks Lake Lodge Special Use Permit (SUP) area. This area is located in a mountain meadow at approximately 9,100 feet on the south end of Brooks Lake, as described above in the vegetation section. Because this area is already disturbed by the 80-plus year tenure of the lodge and its ongoing operation, indirect impacts to wildlife as a result of the Proposed Action are less likely to occur at this spatial scale. Direct and indirect impacts to the wildlife resource are also considered at a landscape scale of analysis. Operations based at the lodge, including guided snowmobiling in the winter and horseback riding during summer months, extend the influence of the lodge's activities into surrounding mountains and drainages. Finally, cumulative impacts are considered both within the SUP area and the larger landscape area of influence of the lodge's activities.

Brooks Lake Lodge is located in the mountain meadow habitat type, which is characterized at the lodge site by extensive grass cover, scattered and isolated conifers, and a network of wetlands that include subirrigated meadows and willow complexes around small streams and seeps. The SUP area is bounded by spruce forests. At the landscape level, rugged mountains at the south end of the Absaroka Range are interspersed with high mountain meadows, river drainages, lakes, and conifer forests.

The lodge is located in close proximity to two Forest Service campgrounds (Brooks Lake and Pinnacles, offering 35 units) and several trail heads accessing National Forest System lands. The campgrounds receive summer recreational visits and snowmobile traffic during winter months. In addition to unregulated public access to trail heads, campgrounds, and other recreational opportunities such as fishing in Brooks Lake, a permitted outfitter operated from the Brooks Lake, offering guided backcountry hunting opportunities during fall to their clientele.

Much like the backcountry guide services operating in the area, Brooks Lake Lodge guests are managed in small groups accompanied by a trained guide. Recreational opportunities offered for guests at the lodge include horseback riding, hiking, snowmobiling, snowshoeing, cross-country skiing, fishing, and canoeing. Most activities take place within the immediate vicinity of the lodge, including at Brooks Lake itself or in the case of skiing or snowshoeing on existing roads and in the nearby campgrounds. Horseback riding, hiking, and snowmobiling do lead guests further into the backcountry.

A Biological Assessment and Biological Evaluation (BA/BE) were prepared as a component of this NEPA process. The analysis in that document and public concerns expressed during scoping identified potential impacts to the grizzly bear (*Ursos arctos*) as a potential issue for this analysis (Cirrus 2001). Consequently, the grizzly bear analysis from the BA/BE is summarized in this EA. The grizzly bear is of particular concern because the Brooks Lake Lodge and the area of influence of its operations lie within subunit 3 of the South Absaroka Bear Management Area, which in turn is a component of the Primary Conservation Area for the grizzly bear (ICST 2000).

### 3.3.2 Environmental Consequences

**No Action.** Under the No Action Alternative, Brooks Lake Lodge would continue to operate with the facilities that currently exist at the resort. Previously approved project elements, as described in Chapter 2 of this document, would be allowed to proceed. None of the facilities described for the proposed action would be constructed, and there would be no additional impacts to wildlife beyond existing baseline conditions.

**Proposed Action.** Under the Proposed Action, two cabins, a spa building, and a pond would be built, as

described in Chapter 2. Impacts associated with the construction of the buildings would be limited to the building footprint, a small buffer around the site, and a footpath to the building, as described under Vegetation Resources. No direct impacts to wildlife from the construction of the cabins or spa building are anticipated. These buildings are located within areas which already experience human visitation and use throughout the year.

Furthermore, the locations of the buildings do not constitute suitable habitat for any of the Threatened, Endangered, or Forest Service sensitive wildlife species that could occur in the area (Cirrus 2001). Indirect impacts would be limited, but could include disturbance to wildlife from an increase in human activity in the SUP area in particular and the landscape area in general. Potential direct and indirect impacts are explored in greater detail in the following paragraphs. The grizzly bear, a Threatened species whose management is influenced by the *Draft Conservation Strategy for the Grizzly Bear in the Yellowstone Area* (ICST 2000), is considered separately from other wildlife species.

The pond would be built in the montane meadow on the stream that flows through the SUP area. As proposed, the pond is designed to function as a fishing pond as well as provide wildlife habitat. However, due to the location of the pond in the center of the BLL complex and the on-going human disturbance in the area, wildlife habitat values would be somewhat restricted. Also, because the pond will most likely be stocked, suitable habitat for amphibians would not be provided.

Indirect impacts to wildlife could result from increased visitation to backcountry areas where species of special interest could occur, potentially resulting in human-wildlife conflicts. However, potential impacts are mitigated by the fact that BLL guest activities are guided. Increased visitation to the resort facilitated by the addition of eight new beds at the lodge would likely result in slightly larger group sizes participating in the various recreational activities sponsored by the lodge. Alternatively, in an effort to keep the experience they offer more personal and closely tailored to the tastes of individual guests, BLL could add additional groups for some activities. Guided activities would help reduce the impact associated with groups entering the backcountry, including straying from trails or acting in ways that could threaten or harm the wildlife resource.

Indirect impacts are also limited by the guiding and outfitting Special Use Permit BLL holds (USDA-FS 2000). This permit sets limits on the total number of visitor recreation days they can offer (see the Recreation section for additional details). The permitted user days established by BLL's current permit would not change if the Proposed Action were implemented. BLL's permitted use under this permit represents a small fraction of the total user days in the area, most of which are generated by the general public and are not guided. For the most part, compliance with Wilderness restrictions and other user guidelines is voluntarily for the non-guided groups. As a result of mitigation inherent in Brooks Lake Lodge's operations (guided groups), no significant indirect impacts to wildlife would occur as a result of the implementation of the Proposed Action.

Direct, indirect, and cumulative impacts which could affect the grizzly bear, a Federally listed Threatened species, must be evaluated in the context of the Draft Conservation Strategy. The Draft Conservation Strategy (ICST 2000, p. 66) states

Subunits (of BMUs) will be managed so there will be no likelihood of detrimental impact due to increases in the number of developed sites or expansion of existing sites on public lands. Any proposed increase, expansion, or change of use of existing developed sites beyond current site influence boundaries will be analyzed and effects documented through a biological evaluation or assessment by the action agency to demonstrate no likelihood of detrimental impact to grizzly bears. If there are any impacts they will be mitigated with equal quantity and quality of habitat within that subunit. Any

deviation from the 1998 site development level in any subunit will require prior mitigation to create an equivalent quantity and quality of secure habitat within that subunit.

The proposal for expansion by BLL would increase human use within the project area. Based on the Draft Conservation Strategy direction, these impacts need some mitigation of equal quantity and quality of habitat within this subunit to meet the intent of the Draft Conservation Strategy. The Shoshone National Forest and BLL have developed a mitigation plan to comply with the Draft Conservation Strategy and demonstrate that there is no likelihood of detrimental impact to the grizzly bear.

BLL has recently purchased an existing outfitter operation. This permit authorized progressive summer use in the Teton Wilderness and fall hunting use from assigned camp #115 at Cub Creek on the Bridger-Teton National Forest, which is in Buffalo/Spread Creek Subunit #2. Clients were generally guided to areas north of Brooks Lake Lodge. The permit also authorized a developed transfer site on Brooks Lake Creek. The transfer site is located generally south of BLL along Brooks Lake Creek and is accessed via the road to Brooks Lake (in South Absaroka Subunit #3). It consists of a gated road, approximately ¼ mile in length, and a set of corrals (telephone pole posts with cable between them) with an alleyway providing watering access down to Brooks Lake Creek.

At the time the operation was purchased by BLL, the transfer corral facility was poorly managed. Abandoned equipment was scattered throughout the site. Poor stewardship practices, such as improperly stored horse feed (including haystacks, sacks, and 55 gallon drums of horse feed) that could act as an attractant to bears and other wildlife were present on the site. In addition, erosion and runoff from the corral was directed into the Brooks Lake Creek riparian area via the alleyway. The alleyway may also act as a barrier to animal migration along the stream corridor. Human activity around the facility has been common. The site experienced frequent vehicle traffic and truck movement as well as horse trailer parking during the summer and fall.

Prior to its conversion to a transfer site, it is likely that the area was part of a larger, contiguous corridor of high quality grizzly bear habitat along Brooks Lake Creek. Human activity, livestock presence, and general disturbance to the site likely restricted grizzly bear use of the area and limited access to riparian travel corridor associated with the stream and its associated food resources.

BLL agreed to reclaim the site by removing the corrals, alleyway, haystacks, horse feed, and road. Since the permit has been purchased, the abandoned equipment, horse feed, and other debris has been removed from the transfer corral site and the vehicle traffic and human activity in the area has largely been eliminated. BLL would permanently close the spur road to the transfer site by ripping and reseeding, and using large boulders to close the corridor at the Brooks Lake road. The corrals would also be removed. Conversion of the area from a developed site to natural vegetation would net approximately 2 acres bear habitat, which is better quality habitat than that at BLL SUP area due to its location on the Brooks Lake Creek riparian corridor. It is also possible that BLL's absorption of the prior permittee's operation would facilitate an overall reduction in the number of employees formerly required to run the two separate operations. Reclamation of the transfer corral site and the related reduction in employee numbers would mitigate impacts of the proposed project with respect to the grizzly bear.

In a Biological Opinion, the U.S. Fish and Wildlife Service concurred with the findings of the Biological Assessment prepared for this analysis and the mitigation measures designed to protect the grizzly bear. Therefore, implementation of the Proposed Action with the identified mitigation measures would be in accordance with the Draft Conservation Strategy for the grizzly bear.

### **3.4 Historical and Visual Resources**

#### **3.4.1 Existing Conditions**

This section is based on the historical resources inventory report prepared by Metcalf Archaeological Consultants, Inc. (MAC 2001), and site visits by Forest Service and Wyoming State Historic Preservation Office (SHPO) personnel. The report was prepared in part to assist the Forest Service in complying with Section 106 of the National Historic Preservation Act.

BLL is a historic lodge on the Lander-to-Yellowstone Road originally built in 1922, Yellowstone National Park's 50<sup>th</sup> anniversary. For the first few years, it was an overnight stop for tourists traveling to Yellowstone. It was then dropped as an overnight stop on the Yellowstone tour, changed hands and began operating as a dude ranch under the Diamond G Ranch. It continued to operate as a dude ranch for about three decades. Subsequently, the property changed ownership a number of times and gradually fell into disrepair. In 1980, new ownership acquired the lodge and began a series of repairs, which continued for several years. In 1982, BLL was placed on the National Register of Historic Places (48FR1818). Most recently, in 1999 BL Property, LLC, acquired BLL. The current owners have prepared a Master Development Plan for the property which included improvements to the property to increase the capacity and variety of amenities offered at BLL (BL Properties 2000). The Proposed Action analyzed in this document is part of that Master Development Plan.

Due to the changes that have occurred over the years, the property was evaluated to determine if it retains sufficient integrity to remain listed on the National Register. It was concluded that it did (MAC 2001). BLL possess integrity of location, design, setting, materials, workmanship, feeling, and association, and is one of the few remaining vestiges of the Lander route to Yellowstone with a degree of historical integrity still intact. BLL is significant in the post-1900 period of American history for qualities and values of architecture and for its role in the early-day recreation industry of Wyoming.

Significant viewsheds at this site are views generally to the north and northeast and can best be described as spectacular (MAC 2001). Brooks Lake dominates the foreground and midground, and the background and horizon are marked by the palisades of the Pinnacle Buttes. There is virtually no intrusion on the viewshed from this site. The Forest Service has a campground on the northeast side of Brooks Lake which is well hidden in trees and difficult to see at all from the lodge. Lake access is present immediately in front of the lodge property, via a gravel road running down to a gravel and dirt parking area. These features are hidden from view from the lodge property by the terrain. The east side of the lodge property is bounded by Forest Road 515, formerly the historic Lander-Yellowstone Road. The historic association between the road and the lodge is integral, and the road's presence in the viewshed is historically correct, though the road has been upgraded to some extent.

The proposed spa location was the only area where a pre-historic item was located during the site inspection. No other isolated finds occurred during the site inspection.

#### **3.4.2 Environmental Consequences**

**No Action.** Under the No Action Alternative, Brooks Lake Lodge would continue to operate with the facilities that currently exist at the resort. Previously approved project elements, as described in Chapter 2 of this document, would be allowed to proceed. None of the facilities described for the proposed action would be

constructed, and there would be no additional impacts to historical and visual resources beyond existing baseline conditions.

**Proposed Action.** Under the Proposed Action, three new buildings and a pond would be built within the BLL Special Use Permit area, within the bounds of the National Register property. The four elements of the proposed developments, considered singly or in aggregate, would affect the qualities that caused BLL to be listed on the National Register.

The effect of construction of the two cabins would be minor and would be the least of the four proposed developments. The cabins would be of similar scale, design, and exterior treatment as historic guest cabins that remain on the site. More than two of the original historic guest cabins have been removed previously, and thus, in number, the two proposed guest cabins would not represent an increase over what was present originally. The cabin locations would be on the west edge of the site and would not be prominent in the viewsheds of the site, or in viewsheds from any of the site's historic structures. Both cabins would be built approximately on the footprints of historic guest cabins. The USFS, in consultation with the SHPO has determined that since these two cabins would be constructed on the original footprints or very near the original footprints of the historic cabins and would be designed to match the existing historic cabins, these would constitute a finding of "No Adverse Affect" to the site (USDA-FS 2001).

The effect of construction of the pond, pump house, and hydrant would be relatively small. These impacts are due to the fact that these landscape features are not historically correct because there was no pond present during the period of the lodge's historic significance. While the pond would occur in the Primary View as one approaches the lodge, its construction would not impact the integrity of the setting and intrasite associations between the various built and natural landscape features of the property. It would also not physically impact any of the contributing elements of the property. There does not appear to be significant archaeological potential in this location, and the presence of a pond, appropriately landscaped, could be considered in keeping with the feeling of the lodge and its surroundings. The USFS, in consultation with the SHPO has determined that the construction of the pond would constitute a "No Adverse Effect" (USDA-FS 2001).

Construction of a building to house a spa and associated amenities would present the greatest effect to the site of the current proposed developments. The most prominent sources of effect are two-fold. First, this new structure has no historic corollary in its location, scale, or function. And second, the proposed placement of the building would add to the overall size of the site, and the current design would be of a scale that could detract from the visual prominence of the lodge structure, which was historically, and should remain, the most prominent of the site's structures. However, the current proposed design calls for exterior design, materials and treatment to match the other historic buildings on the site. In general, the presence of this new building in its current proposed location (northwest of the lodge) would not substantially upset the balance of the site and detract from the associations between the historic features of the site. The USFS, in consultation with the SHPO has determined that given the proposed location of the spa as one approaches the Lodge (northwest of the Lodge and out of primary view) and its construction and design (matching historic log construction and designed to resemble the Lodge, but on a smaller scale), construction of the spa would constitute a "No Adverse Effect" (USDA-FS 2001).

In addition to the direct impacts of these four proposed developments, there would be impacts resulting from associated activities. The three proposed buildings would require installation of underground utilities (electricity, water, and sewer). Slight modification of existing road access, or construction of new access may be necessary for construction traffic and to include the new structures in the existing transportation network on the site. All of

these hold potential for impacts to archaeological materials. Potential mitigation measures proposed to avoid or minimize impacts to cultural resources are described below.

**Mitigation for Impacts to Historical Resources.** While there are no adverse effects that would occur due to the proposed changes discussed above, there would still be effects that would necessitate mitigation. Potential mitigation measures to ensure that cultural resources are protected in areas of proposed construction focus primarily on the following management recommendations:

- Testing and/or monitoring by a qualified archaeologist should occur to ensure that no previously undiscovered heritage resources are destroyed. Archaeological testing could be undertaken at the proposed locations to determine if any subsurface materials are present prior to construction or monitoring could occur during excavation of building foundations, the pond site, access roads, and utility corridors.
- At the proposed spa location, care should be taken during testing and/or construction monitoring to ensure that subsurface material (if there is any) is not destroyed due to the finding of a prehistoric item.
- Landscaping, in accordance with the historic setting will be used to decrease the visibility of the spa from the primary approach to the lodge area.
- Maintenance of any structures or facilities will adhere to the requirements outlined in the Maintenance Agreement portion of the Operating Plan for Brooks Lake Lodge.

### **3.5 Recreational and Economic Resources**

#### **3.5.1 Existing Conditions**

BLL is located in the Greater Yellowstone Area (GYA). The GYA is comprised of Yellowstone National Park, Grand Teton National Park, the John D. Rockefeller, Jr. Memorial Parkway, portions of six national forests, the National Elk Refuge, and the Red Rocks National Wildlife Refuge, as well as some state, private, and Indian lands. Public lands make up approximately 69 percent of the GYA, with private comprising 24 percent of the area and state and Indian reservations making up the remaining lands. The GYA has developed a national reputation as a winter recreation center offering activities on national park and forest land, including skiing, snowmobiling, snowcoach touring, downhill skiing, cross-country skiing, wildlife viewing, and winter sightseeing (National Park Service 2000).

On a smaller scale, BLL is located in the Wind River unit of Wind River Ranger District in the Shoshone National Forest. The Forest Plan describes recreation opportunities and management objectives for this area (Forest Service 1986). It is managed for semi-primitive motorized and roaded natural recreation opportunities. This unit contains two group sites, three campgrounds, one picnic ground, recreational residences, two recreational lodges, one VIS/memorial, and the potential for one more 24 unit campground at Brooks Lake. Although off-road vehicle travel is prohibited to protect resources, there are no snowmobile restrictions within the unit. The Brooks Lake area in particular is a high-use recreation area in terms of summer and winter visitation. A winter visitor use management assessment of the Brooks Lake area identified a high level of conflict between snowmachines and skiers, with the additional moderate impact of dog mushers. Crowding and wintering wildlife were identified as additional factors (Working Group 1999). This assessment recommended designating snowmobile routes and areas available to backcountry use to reduce conflict.

BLL is a three-season (summer, fall, and winter) resort operated under a 20-year special use permit issued by the USDA - Forest Service. The permit covers 25 acres at the south end of Brooks Lake and authorizes the

lodge and other facilities and operations described below. BLL also holds a USDA-Forest Service special use permit authorizing BLL to provide recreational activities on Forest Service lands, as detailed in Table 3.2.

<b>Activity</b>	<b>Number of Permitted Service Days</b>
Day-use fishing on non-wilderness portions of the Wind River District.	200
Day-use trailrides on non-wilderness portions of the Wind River District.	2000
Day-use trailrides on Bridger-Teton Forest on Cub Creek, Bear Cub Pass, and Morgan and Mystery Lakes area.	100
Day-use interpretive hikes on non-wilderness portion of the Wind River District.	500
Day-use cross country skiing/snowshoeing on Wind River District.	500
Day-use snowmobiling on Wind River District.	300
Day-use boating on Brooks Lake.	250
Day-use automobile touring on the Wind River District.	No limit set.

Guest facilities at BLL include the original log lodge and six log cabins. The lodge has a number of guest amenities, including a front lobby gathering area, a restaurant with seating for 40 to 50 guests, a kitchen, a saloon, and six guest bedrooms. The cabins are also used as guest lodging. Total guest capacity at BLL is 28 overnight guests. In addition, approximately 22 staff are employed and housed on site. Other facilities at BLL include a tackle shop, a spa building which has been converted to manager housing, a shop, a tack barn, and an A-frame building, a chalet, stables, and a bunk house, which are used for employee housing.

The summer season, which includes the months of late June through September, is the busiest period for BLL. Use data is available for the last two summers. During the 1999 summer season, 1,554 guests stayed at BLL, and during the 2000 summer season, this number increased to 1,611 guests. July and August are the busiest months with occupancy approaching 90 percent; many prime weekends sell out. Summer activities available for guests include hiking, fishing, canoeing, and horseback riding. These activities take place on adjacent National Forest System lands. Hiking and horseback trip destinations include Jade Lake, Upper Brooks Lake, and the Pinnacle Peaks trail. Canoeing and most fishing occur on Brooks Lake. BLL is required to report fishing and horseback riding numbers to the Forest Service. During the summer of 2000, 377 guests participated in fishing, and 872 participated in horseback riding. All guest activities are guided by lodge staff.

The winter season, which includes the months of late December through March, has a lower occupancy rate at approximately 40 percent. Access to BLL during the winter season is via snowmobiles, cross country skiing, or snowshoeing. Guest occupancy data is available for the last two winters. During the 2000 winter season, 338 guests stayed at BLL, and during the winter 2001 season, this number increased to 543 guests. Winter guest activities include snowmobiling, ice fishing, cross country skiing, and snowshoeing. The special use permit authorizes BLL to groom the road from Highway 26/287 to the lodge to facilitate winter access. In addition,

they are authorized to groom cross-country ski trails immediately adjacent to the lodge and the lake as part of their guiding and outfitting program. BLL is also required to report ice fishing numbers to the Forest Service. During the winter of 2001, nine guests participated in ice fishing.

During the winter season, BLL is used by snowmobilers as a rest stop. BLL serves lunch from 12:00 to 3:00 p.m, and during the 2001 winter season, they served 1,681 snowmobilers. Additional snowmobilers stopped to warmup but did not eat lunch. These numbers are in addition to the overnight guests that stayed at BLL.

BLL's use of recreational guiding and outfitting activities on National Forest System lands has been below the allocated use levels in the special use permit for most permitted activities. BLL has recently purchased a second outfitting and guiding special use permit. The summer use portion of this permit authorizes 200 temporary use days at undesignated sites in the Teton Wilderness, Bridger-Teton National Forest, between June 1 and September 15. The fall hunting use portion of this permit authorizes 170 temporary use days in the Bridger-Teton National Forest between September 1 and December 15 with overnight use at camp #115 at Cub Creek. This permit also has yearlong use at a transfer corral near Brooks Lake along Brooks Lake stream. However, BLL will operate this permit out of their existing facilities at the lodge. This will concentrate guest use at the existing BLL facilities and eliminate disturbance from the guests and employees adjacent to the Brooks Lake Creek riparian corridor. Since the corrals will no longer be needed, they will be removed and the area reclaimed. While combining the new permit with the existing BLL operation will probably not substantially affect the total number of people entering the backcountry, it would likely reduce the employee requirement and the number of independent groups entering the backcountry.

The nature of the economic environment for lodging facilities operating on National Forest System lands is most often based on the tourism industry. Due to the unique environment and scenic beauty of the Brooks Lake Lodge area many visitors are attracted to the site to recreate. As discussed, depending on the season, various recreational opportunities exist for the visiting guest. As the seasons change, visitation levels fluctuate depending on the recreational opportunities offered. The highest levels of visitation occur during the summer season, which results in the greatest economic stability for the operation. Along with the change in seasons, another factor affecting visiting guests is the weather. Since most activities occur in the outdoors, the weather patterns for each season can often result in changes to the levels of visitation. Managing these fluctuations and having the ability to accommodate guests during the most favorable periods helps to ensure the economic viability of each facility. Amenities offered by the lodging can also influence the level of visitation at these areas.

Other forces that can affect the economic viability of lodging facilities are the national or regional economies. When the economy slows, the public tends to recreate less, which results in lower visitation to the area. All of these factors combine to make the management of lodging facilities sensitive to these changes. The viability of each operation is reviewed at the time of permit issuance or at the time of permit renewal. Improvements of these areas typically result in favorable responses from the visiting public.

### **3.5.2 Environmental Consequences**

**No Action.** Under No Action, BLL would continue to operate with their existing facilities and amenities. The cabins, spa, and pond would not be constructed. Visitation during the peak summer season would see minimal increases due to lodging capacity constraints. However, total guest numbers could increase by increasing occupancy during September and during the winter period when existing capacity at the BLL is under-utilized. With the newly acquired outfitting permit, the BLL would like to offer guests pack trips into the Teton Wilderness, but other aspects of their guiding and outfitting would remain unchanged. The economic viability of

BLL would remain essentially unchanged from current levels.

**Proposed Action.** Under the Proposed Action, BLL would be authorized to construct two new cabins, a spa building, and a pond. The new cabins would increase the lodging capacity by 8 guests to 36 total overnight guests. This would be a 22 percent increase in overnight guest capacity. This increased capacity would likely be utilized initially during the summer peak visitation period when the demand for lodging may exceed the number of rooms available. However, during the late summer and winter season when current lodging capacity is under utilized, additional guest capacity would likely not affect the total number of guests. However, trends of increasing visitor days in the area are projected to continue. This trend would likely translate to increased demand at BLL during the winter season. The additional capacity provided by the cabins would then allow the number of overnight guests to be higher.

The construction of the spa facility would provide guests with additional amenities and enhance the quality of the experience of the guests that stay at the BLL. While the facility itself would not affect guest capacity, it would likely facilitate BLL in attracting additional guests to better utilize the capacity in the existing and new overnight accommodations, possibly attracting a slightly different component of the spectrum of potential clients.

The increased guest capacity at BLL, with a concurrent increase in the number of potential guests, associated with the Proposed Action would increase the economic viability of the facility by allowing better utilization of the existing facilities and infrastructure.

### 3.6 Cumulative Effects

This section addresses the cumulative effects of the Proposed Action when combined with other past, present, and reasonably foreseeable activities. Projects identified in the cumulative impact analysis include the Brooks Lake and Pinnacles campgrounds at Brooks Lake (totaling 34 campsites), the back country trail heads, the summer residences, changes in the winter use plans at nearby Yellowstone and Grand Teton National Parks (NPS 2000), and changes at BLL, including interior remodeling of the existing lodge and some of the cabins and support facilities, the relocation of propane storage tanks, and construction of a parking lot.

The Proposed Action is not expected to contribute cumulatively to impacts associated with past and present projects in the area. The expected additional capacity and use associated with the Proposed Action would be well within the permitted service days of the lodge. The level of visitation that the lodge generates is a fraction of the total visitation the area receives. The addition of 8 new beds would not noticeably increase BLL contribution to the existing level of recreation use in the area. The majority of use in the area is derived from the nearby campgrounds and dispersed recreation in the summer months, and by open public access by snowmobilers in the winter. Further, the Proposed Action is not expected to interact cumulatively with changes to the winter use plans in Yellowstone and Grand Teton National Parks. A Record of Decision has not been issued for the *Winter Use Plans Final Environmental Impact Statement Volume I* (USDI-NPS 2000), and thus the alternative that the Park Service intends to implement remains uncertain. However, mitigation inherent in the BLL operation, as discussed under Wildlife Resources, assures that the grizzly bear will be managed for a sustained population and that conflicts with humans will be minimized.

Perhaps the most important factor in the cumulative impact assessment is the fact that the Brooks Lake area is within the Primary Conservation Area identified in the Draft Conservation Strategy for the Grizzly Bear in the Yellowstone Area (ICST 2000). The objective of this strategy is to ensure that there will be no detrimental impact to grizzly bear due to the increases in the number of sites or expansion of existing sites. As a result of this

plan, present and future projects planned for this area that would contribute cumulative impacts are limited or otherwise required to be mitigated.

Cumulative impacts to the cultural resource would include many of the items discussed above. Construction that has occurred over the past few years has included renovations to existing structures. Some of these changes have not been in accordance with the character of the site. For example, rooflines to the lodge are not in accordance with the historic character of the lodge. Many of these concerns will be addressed in the maintenance agreement of the operating plan for future correction. That agreement will ensure that as changes are made in the future, adherence to the character of the area will be followed.

A watershed cumulative effect concern is present due to the proximity of the BLL to West Brooks Lake Creek, which is a degraded stream system. While its impaired condition needs to be validated by the Wyoming DEQ, the stream and riparian area near the lakeshore have been negatively impacted by past trail and horse pasture use linked to BLL.

There is a higher risk to the watershed in the selection of Alternative A (No Action) because of past and present ground disturbance, including the destruction of wetlands, improvised damming of the stream, road-stream crossings, connected disturbed areas, and lack of mitigating actions. Alternative B (the Proposed Action), could assist the recovery of the present watershed condition through the rehabilitation of disturbed areas, installation of proper erosion control, utilization of “best management practices”, and special mitigation measures to ensure instream flow below the pond. The special mitigation measures would require BLL to manage the pond and monitor and regulate water and sediment levels. Due to the time and attention this measure would require, it involves some risk. Assuming proper administration, compliance, and monitoring of the Proposed Action and the special use permit, only natural disturbance events beyond the design storm (50 year, 24 hour) could contribute, perhaps substantially, to watershed cumulative effects.

## Chapter 4 References

- Bilodeau, M. A. 2000. Program Manager, Wyoming Regulatory Office, Army Corp of Engineers. Letter to Rick Lee, Manager, Brooks Lake Lodge. August 25.
- BL Properties. 2000. Master Development Plan, Brooks Lake Lodge, Fremont County, Wyoming. Prepared for the US Forest Service, Shoshone National Forest, Wind River Ranger District, Dubois, Wyoming. Prepared by BL Properties, Dubois, Wyoming. August 14.
- Campbell, T. M., III. 2000. President, Biota Research and Consulting, Inc. Letter and attachments to M. A. Bilodeau, Program Manager, US-ACOE. October 9.
- CES (Cirrus Ecological Solutions, LC). 2001. Biological Assessment and Biological Evaluation for the Proposed Brooks Lake Lodge Expansion. Logan, UT.
- Fertig, Walter. 1994. Wyoming Rare Plant Field Guide. Published by the Bureau of Land Management, Lead Agency. Cheyenne, WY.
- Forest Service 1986. Shoshone National Forest Land and Resource Management Plan. Rocky Mountain Region.
- Greater Yellowstone Winter Visitor Use Management Working Group (Working Group). 1999. Winter Visitor Use Management: A Multi-Agency Assessment. Final Report of Information for Coordinating Winter Recreation in the Greater Yellowstone Area.
- Hinschberger, M. 2001. Wildlife Biologist, Shoshone National Forest. Electronic mail communication with Don McIvor regarding sensitive species list for the Shoshone National Forest. March 27.
- Interagency Conservation Strategy Team (ICST). 2000. Draft Conservation Strategy for the Grizzly Bear in the Yellowstone Area. Public review draft.
- Metcalf Archaeological Consultants (MAC). 2001. Brooks Lake Lodge (48FR1818), Fremont County, Wyoming: Assessment of Effect and Management Recommendations for Proposed New Construction. Prepared by Metcalf Archaeological Consultants, Inc. Anne McKibben, Principal Investigator. Eagle, Colorado. July.
- National Park Service. 2000. Winter Use Plan Final Environmental Impact Statement, Vol. I. Prepared for the Yellowstone and Grand Teton National Parks and the John D. Rockefeller, Jr., Memorial Parkway.
- Rosgen, D.L. 1996. Applied River Morphology. Wildland Hydrology/Printed Media Companies. Minneapolis, MN.
- USDA-FS. 2001. Letter regarding Brooks Lake Lodge archaeological survey from Rebecca R. Aus, Forest Supervisor, Shoshone National Forest, Cody, Wyoming to Judy Wolf, State Historic Preservation Office, Cheyenne, Wyoming. September 18.

USDA-FS. 2000. Special Use Permit for BL Property LLC. Issued June 4, 2000.

USDA-FS (U.S. Department of Agriculture Forest Service). 1986. Land and Resource Management Plan Shoshone National Forest. Cody, Wyoming: USDA-FS, Rocky Mountain Region, Shoshone National Forest. January.

## Chapter 5 Agencies and Persons Consulted

### 5.1 Forest Service Personnel

#### 5.1.1 Project Management

**Burnie Davison**

Title: District Ranger  
Project Responsibility: Administration and oversight.

**Skip Shoutis**

Title: Project Coordinator  
Project Responsibility: Project administration and oversight; public involvement; NEPA oversight; facilitate communication between Forest Service specialists, other agencies, consultants, and proponent.

#### 5.1.2 Specialists

**Mark Hinscheberger**

Title: Wildlife Biologist  
Project Responsibility: Project wildlife biologist; review of wildlife and threatened, endangered, and Forest Service Sensitive species reports; and consultation with US Fish and Wildlife Service.

**Kent Houston**

Title: Soil Scientist  
Project Responsibility: Project soil and vegetation scientist; review of vegetation and wetlands sections.

**Mark King**

Title: NEPA Coordinator  
Project Responsibility: Review NEPA documentation; monitor project NEPA compliance

**Allen Madril**

Title: Archeologist  
Project Responsibility: Project archaeologist; review of cultural resources report; and consultation with State Historic Preservation Office.

**Liz Oswald**

Title: Hydrologist  
Project Responsibility: Project hydrologist; and water resources section.

## 5.2 Consultants

### 5.2.1 Cirrus Ecological Solutions, LC

#### Scott Evans

Title: Project Manager  
Project Responsibility: Project oversight; NEPA oversight; public involvement; development of project description and purpose and need for project; coordination with agencies; document review.

#### John Stewart

Title: Wetland and Vegetation Specialist  
Project Responsibility: Wetland, vegetation, and recreation resource sections; public involvement; and biological evaluation.

#### Don McIvor

Title: Wildlife Biologist  
Project Responsibility: Wildlife resource section, biological assessment and biological evaluation.

#### Sonya McBride

Title: Wildlife Biologist  
Project Responsibility: Biological assessment and biological evaluation.

### 5.2.2 Metcalf Archaeology

#### Anne McKibbin

Title: Archaeologist  
Project Responsibility: Cultural resource report; and coordination with State Historic Preservation Office.

## 5.3 Brooks Lake Lodge Representatives

#### Jinifer Ables

Title: General Manager  
Project Responsibility: Project oversight and development.

## 5.4 Other Agencies Consulted

U.S. Fish and Wildlife Service  
Wyoming State Historic Preservation Office