

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-ID-B010-2012-0041-EA**

Highlands & Crane Ridge Trails

August 1, 2013

U.S. Department of the Interior
Bureau of Land Management
Four Rivers Field Office
3948 Development Avenue
Boise, ID 83705



**Environmental Assessment # DOI-BLM-ID-B010-2012-0041-EA
(Highland’s Trail)**

Table of Contents

1.0	Introduction.....	1
1.1	Need for and Purpose of Action.....	1
1.2	Summary of Proposed Action	1
1.3	Location and Setting.....	1
1.4	Conformance with Applicable Land Use Plan.....	2
1.5	Relationship to Statutes, Regulations, and Other Requirements.....	2
2.0	Description of the Alternatives	3
2.1	Alternative Development Process	3
2.2	Alternatives Considered But Not Analyzed in Detail	3
2.3	Description of Proposed Action and Alternatives.....	3
2.3.1	Alternative A - No New Trail Development.....	3
2.3.2	Alternative B – Highlands Trail & Bob’s Loop Trail.....	3
3.0	Affected Environment and Environmental Consequences	5
3.1	Soils/Watershed.....	5
3.1.1	Affected Environment – Soils/Watershed	5
3.1.2	Environmental Consequences – Soils/Watershed.....	5
3.1.2.1	Alternative A	5
3.1.2.2	Alternative B.....	5
3.2	Wildlife/Special Status Animals	7
3.2.1	Affected Environment – Wildlife/Special Status Animals	7
3.2.2	Environmental Consequences – Wildlife/Special Status Animals	7
3.2.2.1	Alternative A	7
3.2.2.2	Alternative B.....	7
3.3	Recreation.....	8
3.3.1	Affected Environment – Recreation	8
3.3.2	Environmental Consequences – Recreation.....	9
3.3.2.1	Alternative A	9
3.3.2.2	Alternative B.....	9
3.4	Visual Resources	9
3.4.1	Affected Environment – Visual Resources.....	9
3.4.2	Environmental Consequences – Visual Resources.....	9
3.4.2.1	Alternative A	9
3.4.2.2	Alternative B.....	10
3.5	Cumulative Impacts.....	10
3.5.1	Scope of the Analysis.....	10
3.5.2	Environmental Consequences – Cumulative Impacts – All Alternatives	10
3.5.2.1	Soils/Watershed	10
3.5.2.2	Wildlife/Special Status Animals.....	11
3.5.2.3	Recreation.....	11
4.0	Consultation and Coordination	12
4.1	List of Preparers	12
4.2	List of Agencies, Organizations, and Individuals Consulted.....	12
4.3	Public Participation	13

5.0 Literature Cited 13
6.0 Maps..... 14

Environmental Assessment # DOI-BLM-ID-B010-2012-0041-EA (Highlands & Crane Ridge Trails)

1.0 Introduction

1.1 Need for and Purpose of Action

Rising public demand for non-motorized recreational trail access in the Boise Foothills, and the loss of public access to an existing connecting trail across private land has created the need to re-establish a trail connection between Corrals Trail (#31) and Bob's Trail (#30) and to provide a short loop trail off Bob's Trail. This public demand was clearly expressed over the last few years from the recreating public, local citizens, and from public input as the City of Boise begins to update the Foothills Open Space Plan.

The purpose of this action is to:

- (1) meet the public demand to provide recreational trail opportunities in a frequently used area of the Boise Foothills,
- (2) re-establish a closed connection trail, and
- (3) provide a short loop opportunity off Bob's Trail.

1.2 Summary of Proposed Action

The proposed action consists of three components to provide 3 miles of new, non-motorized trail opportunities in the Boise foothills as part of the Ridge to Rivers Trail System.

- (1) Create a trail to connect Bob's Trail with Corrals Trail using a combination of existing trails and the construction of 0.9 mile of new trail.
- (2) Create a loop trail opportunity off Bob's Trail using an existing trail and an old two-track road. Three short sections of the two-track road (about 0.2 mile each) would require rerouting to avoid overly steep grades.
- (3) Designate these new trails as open to non-motorized recreational uses as part of the Ridge to Rivers Trails System.

1.3 Location and Setting

The project area is located in northern Ada County, Idaho, just outside the City of Boise, in the central portion of the Boise Foothills, bounded by Corral's Trail on the north, Bob's Trail on the south, and Bogus Basin Road on the west (Map 1). Elevations of the Foothills range from about 2,800 to 5,700 feet. The proposed trail is located between the elevations of 3,100 and 3,700 feet. The topography of the project area is moderately to severely steep slopes (20 to 60%) composed of erosion-prone, granite-derived soils that are easily disturbed. The project area is dissected by a number of small, unnamed drainages as well as Crane Creek. Portions of Crane Creek contain riparian vegetative communities and wildlife habitat.

The Boise Foothills are an 80,000+ acre area roughly bounded by State Highway 55 on the west, State Highway 21 on the East, the Boise Ridge Road on the north, and by a variable line where the foothills meet the valley floor on the south. About 12,000 acres of this area are managed by the BLM, 12,400 acres by the Forest Service, 2,100 acres by the City of Boise, 2,300 acres by Ada County, 3,200 acres by the Idaho Department of Lands, and 6,500 acres by the Idaho Department of Fish and Game. The remaining acreage is privately-owned.

Rising north of Boise, the foothills of the Boise Front have evolved from a little-visited scenic backdrop into an important regional recreation asset for the expanding population of southwest Idaho. A 135+ mile trail and road system has been developed over the years that provide the public with opportunities for hiking, nature viewing, horseback riding, mountain biking, driving for pleasure, and off-highway vehicle (OHV) activities.

Since 1992, a group of five public agencies, the Ridge-to-Rivers Partnership, has provided coordinated management of recreation, wildlife, watershed, and residential growth in the Boise Front. The involved agencies signed a Memorandum of Understanding (MOU) in 1999 authorizing the development of an Open Space Management Plan to, "...preserve, protect, enhance, perpetuate, and manage the resources of the Boise Front, working together with private landowners." This coalition has produced several plans and other documents that propose zoning and management of land for a variety of uses. In 2010, the partners signed the updated Ridge-to-Rivers MOU, defining the goals and relationships of the involved agencies, and setting the protocols for unified management of the recreational trails system in the Boise Foothills.

1.4 Conformance with Applicable Land Use Plan

The Highlands Trail Project is in conformance with the BLM's Cascade Resource Management Plan (USDI 1988). The Plan recognized the importance of recreational use in the foothills by designating the Boise Front Special Recreation Management Area (pages 18 and 29). The Plan further states:

- (1) The Boise District will provide and maintain recreation opportunities and facilities on public lands. Recreation facilities are provided to meet existing or anticipated demand, for public safety, and to protect recreation facilities (page 58).
- (2) Within the 12,000 acre Boise Front Area of Critical Environmental Concern (ACEC), the following activities will receive management emphasis or resource use limitations to further protect resource values (page 2-53):
 - a. Motorized and non-motorized vehicle use will be limited to designated roads and trails;
 - b. The area will be managed to conform to Class II Visual Resource guidelines;
 - c. Installation of water control structures to reduce erosion where needed;
 - d. Closure and rehabilitation of certain roads.

1.5 Relationship to Statutes, Regulations, and Other Requirements

The project would be in conformance with the multi-agency adopted Public Land Open Space Management Plan for the Boise Foothills (2000) that lists a principal goal and related objectives for recreation use on the public lands of the Boise Foothills:

"Goal: Provide the public with a wide range of recreational opportunities compatible with other plan goals at appropriate places, while taking care to protect the ecological diversity of the Foothills.

Objective 1: Manage recreation uses to be compatible with the natural resources found in the Foothills;

Objective 2: Manage trails and trailheads to protect Foothills resources, take pressure off the Boise River Wildlife Management Area (WMA), reduce trail conflicts, and offer additional recreation opportunities;

Objective 3: Have recreational activities and improvements avoid or minimize impacts to important resource values;

Objective 4: If negative impacts to critical resources occur due to a recreational facility or use, seek to mitigate, relocate, or impose seasonal closures to address the impacts.”

Executive Order 13186 expressly requires that Federal agencies evaluate the effects of proposed actions on migratory birds (including eagles) pursuant to NEPA “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service.

Cultural Resources

Idaho BLM has the responsibility to manage cultural resources on public lands pursuant to the National Historic Preservation Act of 1966 (as amended), the 2012 Programmatic Agreement Among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers and the State Protocol Agreement Between the Idaho State Director of the BLM and the Idaho State Historic Preservation Officer (1998) and other internal policies.

2.0 Description of the Alternatives

2.1 Alternative Development Process

BLM developed the alternatives in this environmental assessment in coordination with internal staff, Ridge to Rivers Trail Coordinator, David Gordon, and adjacent private landowners (Highlands Inc.).

2.2 Alternatives Considered But Not Analyzed in Detail

No other alternatives were considered.

2.3 Description of Proposed Action and Alternatives

2.3.1 Alternative A - No New Trail Development

No new non-motorized connection trail would be constructed. No additional existing trails would be added to the Ridge to Rivers Trail System.

2.3.2 Alternative B – New Trails

The proposed action consists of several components that would provide 3 miles of trail opportunities in the Boise Foothills. A new 1.7 mile trail (Highlands Trail) would be created using a combination of existing trail (0.6 mile) and the construction of 1.1 miles of new single

track trail. The majority of the new trail would be constructed on BLM-managed land (0.9 mile); however, due to terrain constraints, a short section of new trail would cross private land (0.2 mile) (Map 2). The section crossing private lands has a revocable easement in place with the City of Boise to provide legal public access across the private land. The trail would link the existing non-motorized Corrals Trail with the non-motorized Bob's Trail to the south.

Additionally, a new 1.3 mile trail loop opportunity (Crane Creek Ridge Trail) would be created off Bob's Trail using two existing un-named trails. The entire trail would be on public lands administered by the Bureau of Land Management. Portions of the existing trail were constructed for motorized vehicle use and are too steep to be used or maintained for non-motorized use. This is where three new segments of trail would be constructed to bring the trail grade to less than 10 percent. Each of these new trail segments would be about 0.2 mile in length. The steep trail sections would be physically blocked to discourage use, and reseeded to promote vegetative recovery.

A total of 1.5 miles of new trail construction would occur on BLM land (0.9 Highlands Trail; 0.6 Crane Creek Ridge Trail). All of the new trails would be designated trails for non-motorized use only and would be incorporated into the Ridge to Rivers Trail System for management.

New trail construction would be accomplished using a motorized Kubota backhoe/tractor and hand tools. The trails would contour across relatively steep areas of the foothills, but would stay within a reasonable grade for trail users on foot or mountain bike.

On side slopes greater than 30 percent, a full bench trail tread would be cut. A full bench trail tread is a trail surface whose full width is cut into the side of a hill. In cross section, the full bench cut looks something like a park bench.

On slopes less than 30 percent, a $\frac{3}{4}$ -bench trail tread would be cut. The tread surface of a $\frac{3}{4}$ -bench is mostly established by a cut into the hillside, but is also created by using the soil from the cut to provide a portion of the tread surface on the lower (outside) edge of the trail.

Where prevailing grade runs would otherwise exceed 100 feet in length, grade reversals (slight ups or downs) would be incorporated into the trail design to reduce the velocity of water runoff. Finished trail tread width would be 30 inches, but the total width of the area affected (disturbed) during construction activities would be up to 10 feet on steeper slope areas. Where possible, trail tread surfaces would be gently out-sloped to avoid the accumulation of standing water on the trail surface. Straw wattles would be used during construction to trap sediment to minimize soil erosion into stream channels. Wattles would remain in place up to one year to help reseeded vegetation to become established.

Trails would have directional and informational signs placed at junctions with other trails, and at occasional intervals along its length. The trail would be periodically maintained using both mechanized and hand tools to knock down berms to reestablish drainage, repair washouts, and clear rocks or other obstructions from the tread surface. Using BLM-approved herbicides, invasive and noxious weeds would be controlled in disturbed areas along the trail as part of regular maintenance.

The trail would be managed in accordance with current Ridge to Rivers Trail System guidelines for non-motorized use, closing trails when they are wet or muddy or during periods of frequent freeze-thaw conditions, typically in late winter and early spring.

3.0 Affected Environment and Environmental Consequences

3.1 Soils/Watershed

3.1.1 Affected Environment – Soils/Watershed

Soils in the project area formed in residuum and alluvium from igneous rock on side slopes and hill tops. They are generally moderately deep to deep and well-drained. Surface textures are dominantly coarse with subsoils varying from loamy sands to clay loams. The hazard of erosion by water for these soils is high and slope is a critical factor in the soil's susceptibility to these forces. Annual precipitation averages 15 to 20 inches, with most infiltrating into the soils. Little water is yielded as overland flow except during high intensity events. Established and user-created trails up steep slopes have caused localized soil erosion.

Streams in the area are largely intermittent, with little or no summer flows in most years. Water sources are mainly derived from surface runoff, with few springs occurring in the area. The main drainage in the area is Crane Creek. Average stream gradients range from 300 to 400 feet per mile (6-8 percent) and streambeds tend to be relatively small in cross section. Floodplains for the drainages are narrow and restricted by the steep topography in these dissected granitic foothills. An existing section of trail crosses Crane Creek at one location and has a fine, gravel base with several large stones for stepping across. The existing trail parallels Crane Creek for about 900 feet and, except for the brief crossing, is located between 50 -100 feet uphill of the creek.

3.1.2 Environmental Consequences – Soils/Watershed

3.1.2.1 Alternative A - No New Trail Development

No new trail would be built, so actions associated with trail construction and recreational use that cause vegetation and soil disturbance and result in accelerated erosion would not occur. However, several sections of the existing user created trails and the old two track road that exceed sustainable grades would continue to be used and would continue to contribute to trail erosion.

3.1.2.2 Alternative B – New Trails

Construction of 1.5 miles of new single track non-motorized trail would result in disturbance of existing vegetation (total removal) and soils in the construction zone. This would result in both on-site and off-site accelerated erosion (dependent on the degree of disturbance and post disturbance climatic events). After the trail has seasoned (been compacted by use) and a regimen of regular trail maintenance has begun, initial erosion rates would be greatly reduced. The proposed Highlands Trail would cross Crane Creek and several intermediate feeder tributaries. Trail construction leading to and crossing the creek and tributaries has the potential to increase sediment into the system. This would be most apparent during and immediately following construction. Post construction recreational use would involve a creek crossing by users, and this has the potential to be a minor, but steady source of sediment to these systems.

3.2 Vegetation/Special Status Plants

3.2.1 Affected Environment – Vegetation/Special Status Plants

Native upland vegetation in the project area consists of an overstory of scattered big sagebrush, antelope bitterbrush, and rabbitbrush with a variable understory composition including bluebunch wheatgrass, Idaho fescue, bottlebrush squirreltail, Sandberg bluegrass, lupine, and arrowleaf balsamroot. Much of the project area has burned, sometimes repeatedly, and annual and perennial invasive plants are now common throughout the area, including cheatgrass, medusahead, tumble mustard, and rush skeletonweed.

Riparian vegetation is found primarily along Crane Creek and the un-named drainage to its north, and commonly consists of an over story of willows, alder, red-osier dogwood, golden currant, cottonwood, water birch, chokecherry, and ninebark, with a mixture of grasses, sedges, and horsetail in the understory.

Based on information from the Idaho Fish and Game Heritage Program and a botanical survey by the BLM, *Allium aaseae*, Aaseae's onion, a BLM Type 2 Special Status Species, and its habitat, were historically found in the immediate project area. However, thorough surveys along the proposed route and entire surrounding area failed to find any *A. aaseae* plants. Much of the proposed project area is currently dominated by thick mats of *Bromus tectorum* (cheatgrass) and *Taeniatherum caput-medusa* (medusahead). Open sandy areas are rare and are usually the result of past OHV traffic.

3.2.2 Environmental Consequences – Vegetation/Special Status Plants

3.2.2.1 Alternative A - No New Trail Development

No new trail would be built, so actions associated with trail construction and recreational use that cause vegetation and soil disturbance and result in accelerated erosion would not occur.

3.2.2.2 Alternative B – New Trails

Construction of 1.5 miles of new single track non-motorized trail would result in the loss of existing vegetation (total removal of up to 1.8 acres) in the construction zone. This would result in an increased risk of establishing invasive, weedy plants in the disturbed areas, and accelerated erosion, both on-site and off-site, degrading habitat for a variety of native plant species in a localized area in the vicinity of the trail. After the trail has seasoned (been compacted by use) in one to two years and a regimen of regular trail maintenance including weed treatments has begun, erosion rates would be greatly reduced and impacts to vegetation would be low over the long term. Additionally, seeded species would become established on the up and downslope sides of the trail, reducing the potential for invasive and noxious weeds over the long term.

The proposed trail would cross Crane Creek and other unnamed intermittent drainages to the north and south. New trail construction leading to and crossing would only occur on the un-named north drainage. This has a small potential to increase sediment into the system, negatively affecting riparian vegetative communities downhill along Crane Creek. This would be most apparent during and immediately following construction. The incorporation of best management practices such as the use of straw wattles to trap sediment in drainages during the construction

phase would aid in minimizing this problem (Levinski 1982). Wattles would remain in place for up to one year to allow reseeded vegetation to become established. Trail crossings at Crane Creek and the un-named south drainage are existing trails. Post construction recreational use would involve a creek crossing by users, and this has the potential to be a minor, but steady source of sediment to these stream systems. This would in turn have a negligible, adverse impact to riparian vegetation along Crane Creek over the long term.

The project area was thoroughly surveyed and it was determined that the current project will have no impact on *A. aaseae* or its habitat.

3.3 Wildlife/Special Status Animals

3.3.1 Affected Environment – Wildlife/Special Status Animals

The project area is within mule deer winter range. Numerous other large and small mammals are found within the project area, including black bear, mountain lion, and coyote. The area also contains numerous upland game birds (e.g. California quail, mourning dove, chukar, gray partridge), non-game birds, (e.g. western meadowlark, chipping sparrows, rock wren, vesper sparrow, sage thrasher, willow flycatcher, song sparrow, yellow breasted chat, yellow warbler, lazuli bunting), and a variety of raptors (e.g. golden eagle, Cooper's hawk, sharp-shinned hawk, red-tailed hawk, northern harrier, American kestrel), and reptiles such as gopher snake, western rattlesnake, rubber boa, and sagebrush lizard. Amphibians including long-toed salamander and western toad are found in riparian areas. No threatened or endangered animals are known to inhabit the area.

Historically, mountain quail (*Oreotyx pictus*), occupied the Boise Front; however, the last recorded observation was in 2005. Several sensitive species of bats are known to occur in the vicinity of the project area including fringed myotis, pallid bat, Western small-footed bat, long-legged myotis, and Townsend's big-eared bat.

3.3.2 Environmental Consequences – Wildlife/Special Status Animals

3.3.2.1 Alternative A - No New Trail Development

No new trail would be built, so actions associated with trail construction and recreational use that result in disturbance to wildlife would not occur.

3.3.2.2 Alternative B – New Trails

Construction of 1.5 miles of new trail would result in a slight to moderate increase in both direct and indirect adverse impacts to several species of terrestrial wildlife, most notably mule deer and birds (both upland game species and nesting passerine birds). Direct impacts to these species may include temporary displacement of animals as recreational trail users pass nearby, resulting in disruption of breeding, nesting, and foraging activities, including exposure of eggs and young to predation and weather due to flushing and avoidance or abandonment of areas near heavily-used trails.

Jalkotzy et al. (1997) found that travel corridors (such as roads or trails) had six major effects on wildlife. These included individual disruption, social disruption, habitat avoidance, habitat disruption or enhancement, direct or indirect mortality, and population effects. Deer and many

other species are most susceptible to human disturbance during winter and early spring when energy reserves are lowest and the energy and nutritional demands of pregnant females are greatest. The proposed new trail would have little recreational use in the winter, but that use would increase substantially beginning in early spring through late June, declining to a lower level through the hottest period of the summer and resuming at a relatively high level again through the fall.

Deer herds would be only slightly affected by construction and subsequent use of the trail because they generally occupy higher elevation areas of the foothills above the proposed trail during the periods of greatest recreational use.

Ridge to Rivers Trail maps and signs at trail kiosks prominently discuss appropriate ethical behaviors for trail users, including the importance of avoiding harassment of wildlife, and keeping dogs on leash or under control on trails. Ridge to Rivers officials have stated that public compliance with rules has been generally good, so impacts to wildlife from trail use would be expected to be slight and localized.

Impacts to passerine birds and upland game birds in critical riparian areas during breeding and nesting periods would be expected to be slight. The proposed trail would parallel Crane Creek for only 900 feet at a distance of 50-100 feet uphill and would cross the creek via a short, direct route rather than traveling along it for extended distances, exposing birds in the vicinity to only brief, localized encounters with recreational users. Also, a small amount of indirect disturbance to riparian dependent wildlife species would be expected because non-motorized traffic along Crane Creek could increase with the completion of the new connecting trail.

3.4 Recreation

3.4.1 Affected Environment – Recreation

As the regional population has grown, the Boise foothills have become more popular for non-motorized, trail-based recreation activities, including hiking, running, mountain biking, bird watching, and nature viewing. The Ridge to Rivers Trail System provides more than 135 miles of trails for recreational use. There is also more than 100 miles of non-Ridge to Rivers Trail System trails across the Boise foothills that are used by recreationists. Though direct recreation use observations for the project area are not available, BLM estimates that dispersed recreation use for the 12,000 acres of the Boise Front that it manages was about 50,000 visits in 2012. Recreation in the vicinity of Miller Gulch near the project area was estimated by BLM at around 15,000 visits in 2012 (USDI RMIS 2012).

For many years, a trail, mainly on private land, provided a connection between Corrals and Bob's Trails. An ownership change removed this trail from public use. There are other trail segments in the area that provide access between these two trails (Map 1). Some of this existing trail meets trail standards for tread width and grade; however, some of the existing trail was user created and is not in a location or condition that is sustainable for steady trail use. Though not currently a part of the Ridge to Rivers Trail System, these existing trails receive regular use. A connecting trail section, off Corrals Trail, was closed to use several years ago but continues to receive use.

Similarly, the ridgeline section of the loop trail proposed off Bob's Trail was created by a bull dozer as part of a fire break. While portions of this trail are level or gently sloping, short sections follow the ridge down very steep slopes. This trail also receives regular use but is not maintained as part of the Ridge to Rivers Trail System.

3.4.2 Environmental Consequences – Recreation

3.4.2.1 Alternative A - No New Trail Development

Not constructing a connecting trail between Corrals and Bob's trails would not provide a maintained trail opportunity to connect sections of the Ridge to Rivers Trail System. Some users may use portions of the existing trails in the area but this would require users to travel cross-country for some distances or use old trail segments that are too steep for safe travel. This can have adverse impacts to users overall recreational experiences when compared to use of other trails in the Ridge to Rivers Trail System.

3.4.2.2 Alternative B – New Trails

Construction of 1.5 miles of new single track trail would enhance recreation experiences for non-motorized users by providing trail connections that create loop and connection opportunities in this portion of the foothills. The Highlands Trail would re-establish an approximate 6 mile loop option with Corrals and Bob's trails that was lost with the loss of access across private land.

Construction of the Crane Creek Ridge Trail would provide a 2 mile loop opportunity off Bob's Trail for those seeking a shorter, quicker trail experience. Adding these trails to the Ridge to Rivers Trail System would bring existing unmaintained trails into the trail system which would receive regular maintenance and be more sustainable for steady trail use. These improved trail conditions provide a better trail experience for most users. Mountain bikers typically view single track trail as providing a more desirable recreation experience than wider and rougher multi-use trails.

3.5 Visual Resources

3.5.1 Affected Environment – Visual Resources

The project area is managed as Visual Resource Management (VRM) Class II. BLM's management objective for this VRM Class is to retain the existing character of the landscape. The appropriate level of allowable change to a Class II landscape should be moderate, where management activities may draw attention, but should not dominate the view of the casual observer.

3.5.2 Environmental Consequences – Visual Resources

3.5.2.1 Alternative A - No New Trail Development

No new trail would be built, so actions associated with trail construction that cause obvious vegetation and soil disturbance and result in a localized, short term degradation of visual quality would not occur.

3.5.2.2 Alternative B – New Trails

Construction of 1.5 miles of new single track non-motorized trail would result in disturbance of existing vegetation (total removal of up to 1.8 acres) and soils in the construction zone, and would result in noticeable short-term impacts to visual quality in a localized area of the Boise Front, but because the trail follows a sinuous route, appearing and disappearing to the viewer as it contours around hillsides, these impacts would be brief and discontinuous, and would not dominate the view of the casual observer. Over time, as disturbed soils re-vegetated, the obvious scars along the route of the trail would soften and become less visible. Therefore, the Class II character of the area would be maintained over the long term.

3.6 Cumulative Impacts

Cumulative impacts are those impacts on the environment that can result from the incremental impacts of the actions adopted in this document, added to other past, present, and reasonably foreseeable, related future actions. The National Environmental Policy Act (NEPA) requires that federal agencies include an analysis of cumulative impacts in their environmental assessments.

As discussed in the Environmental Consequences sections above, there would be no impacts to Watersheds, Special Status Plants, or Visual Resources, therefore, these resources do not warrant further consideration and analysis. In Section 3.1, the impacts to Soils/Watersheds were discussed separate from Vegetation/Special Status Plants (Section 3.2). Soils and Vegetation are so closely related and dependent on each other the cumulative impacts of these two are combined into a Soils/Vegetation discussion.

3.6.1 Scope of the Analysis

For purposes of this analysis, the geographic area of consideration for cumulative impacts is the 80,000 acre Boise Front. Its proximity to Idaho's largest urban area and its relatively good road access make it the area where the most intensive front country trail-related recreation is occurring. The baseline for comparison is considered the current conditions as discussed in the affected environment section for each resource. The period of consideration is six years, extending from the present (2013) back to 2010, when the access across private land was lost, forward to 2016, when most of the direct impacts from trail construction would occur.

3.6.2 Environmental Consequences – Cumulative Impacts – All Alternatives

3.6.2.1 Soils/Vegetation

The 19th century introduction and subsequent proliferation of non-native, highly flammable plants in the Boise Foothills, notably cheatgrass, medusahead, rush skeletonweed, and others, increased the probabilities of more frequent, and severe wildfires, and in the aftermath of these fires, soil erosion and loss of native vegetation tended to be extensive and enduring. In recent years, successful rehabilitation of extensive burned areas from a composition of predominantly annual invasive species to a mix of perennial grasses and shrubs has been fairly successful in some locations on the Boise Front, helping to stabilize erosive slopes and reduce fire danger in those areas.

Grazing pressure has declined substantially from earlier decades, and this too has helped native and other desirable perennial species to recover and thrive in some areas of the Boise Front. In

recent years, aggressive, coordinated fire protection and suppression efforts by managing agencies have often helped to limit burned acreage on the Boise Front. Recent climatic trends across the West have seen rises in average temperature and declines in annual precipitation, and this suggests that despite gains in rehabilitation and improvements in suppression efforts, large fires may be more likely to occur on the Front over the next five years. Should a fire on the scale of the 1996 Eighth Street Fire occur, the small and localized effects of any of the two alternatives on soils and watershed, positive or negative, would, in the context of the 80,000 acre Boise Front, contribute negligible additional cumulative impacts.

3.6.2.2 Wildlife/Special Status Animals

Over the ten year analysis period, ongoing subdivision and development of the private lands in the foothills around the project has, and would continue to displace some terrestrial wildlife and birds into less-developed areas of the foothills, including the relatively undeveloped area of the Crane Creek watershed. Impacts to wildlife as a result of the Proposed Action, or the no action alternative, considered in isolation, are likely to be slight to moderate. When considered in conjunction with ongoing development of other areas of the foothills, it is likely that wildlife populations would continue to experience more disturbance and interaction with humans, more competition for resources, and rising pressure on the productivity of their habitats.

As development of the foothills advances, other planned trail projects are likely to be constructed by the public agencies in the Ridge to Rivers Partnership, and by private developers or home owners associations. If properly planned and located to minimize disturbance to wildlife populations, such projects can help to reduce the impacts of residential development on wildlife.

One of the goals of the Foothills Open Space Plan (Boise Parks and Recreation Department 2000) is to zone the foothills in order to accommodate rising public demand for recreation access while providing areas that protect wildlife from disturbance. The Boise River Wildlife Management Area (WMA) in the southeastern portion of the foothills is managed to protect wildlife habitat in the foothills and to provide a refuge for wildlife from encroaching development and human disturbance. The segregation of large areas of the foothills like the WMA from recreational or residential development while allowing limited, controlled recreational development in other areas, mitigates, but does not eliminate, the inevitable adverse effects of rapid human population growth and development on adjacent wildlife populations.

The small and localized effects of either of the two alternatives on wildlife, positive, or negative, would, in the larger context of the 80,000 acre Boise Front, contribute negligible additional cumulative impacts.

3.6.2.3 Recreation

As human population and recreation demand in the region increase over the next five years, providing trail access would help channel this rising use onto signed and managed corridors that occupy areas best able to sustain such use. The alternative to planned, engineered trail systems is an unplanned, user-built system.

Under Alternative A, no new trail would be built, so a minor proportion of the rising public demand in the region for diverse, non-motorized trail-based recreation would remain unmet. If

governing agencies fail to satisfy rising public demand for additional managed, maintained trails elsewhere across the Boise Front, it could lead to a proliferation of user-built trails. Such user-built systems have been created in the project area and have a variety of negative features including steep fall line routes that can result in erosion and high maintenance costs, unintentional disruption or displacement of plant or animal populations, and increased social friction between public land users.

Under Alternative B (Proposed Action), recreational use of the project area would rise with the addition of the new trail and its related connections, but use of the trail is expected to remain moderate compared to the more popular foothills trail complexes closer to Boise and would not contribute appreciable additional positive or negative impacts to recreation in the context of the entire Boise Front.

4.0 Consultation and Coordination

4.1 List of Preparers

Larry Ridenhour	Recreation/VRM, Team Lead
Joe Weldon	Wildlife
Mark Steiger/Amy Stillman	Botany
Allen Tarter	Soils, Watershed
Dean Shaw	Cultural Resources

4.2 List of Agencies, Organizations, and Individuals Consulted

City of Boise/Ridge-to-Rivers
Idaho Department of Fish and Game/Boise River Wildlife Management Area
Ada County Parks and Recreation
Boise National Forest, Mountain Home Ranger District
Highlands Inc.
Southwest Idaho Mountain Bike Association

Native American Consultation

BLM is required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, *BLM Manual Handbook H-8120-1*). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources, which are referred to as “cultural resource authorities,” and under regulations that are not specific, which are termed “general authorities.” Cultural resource authorities include: the *National Historic Preservation Act of 1966*, as amended (NHPA); the *Archaeological Resources Protection Act of 1979*; and the *Native American Graves Protection and Repatriation Act of 1990, as amended*. General authorities include: the *American Indian Religious Freedom Act of 1979*; the NEPA; the FLPMA; and *Executive Order 13007-Indian Sacred Sites*. The proposed action is in compliance with the aforementioned authorities.

Southwest Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and the Northern Paiute. In the latter half of the 19th century, a reservation was established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. Today, the Shoshone-Paiute Tribes residing on the Duck Valley Reservation actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Other tribes that have ties to southwest Idaho include the Bannock Tribe and the Nez Perce Tribe. Southeast Idaho is the homeland of the Northern Shoshone Tribe and the Bannock Tribe. In 1867 a reservation was established at Fort Hall in southeastern Idaho. The Fort Bridger Treaty of 1868 applies to BLM's relationship with the Shoshone-Bannock Tribes. The northern part of the BLM's Boise District was also inhabited by the Nez Perce Tribe. The Nez Perce signed treaties in 1855, 1863 and 1868. BLM considers off-reservation treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on the BLM-administered lands for all tribes that may be affected by a proposed action.

4.3 Public Participation

Initial input for this project was provided by public users through the Ridge to Rivers Partnership, and adjacent landowners (Highlands Inc.). Input has also been provided by members of the Southwest Idaho Mountain Bike Association. The general public was notified about this project through a NEPA log posting on the BLM Idaho web page starting August 7, 2012.

5.0 Literature Cited

Boise City Parks and Recreation Department. 2000. Public Land Open Space Management Plan For the Boise Foothills. Report on file, Boise, Idaho BLM.

Jalkotsky, M., G.P.I. Ross, and M.D. Nasserden. 1997. The effects of linear developments on wildlife: A review of selected scientific literature. Prepared for the Canadian Association of Petroleum Producers. Arc Wildlife Services Ltd., Calgary.

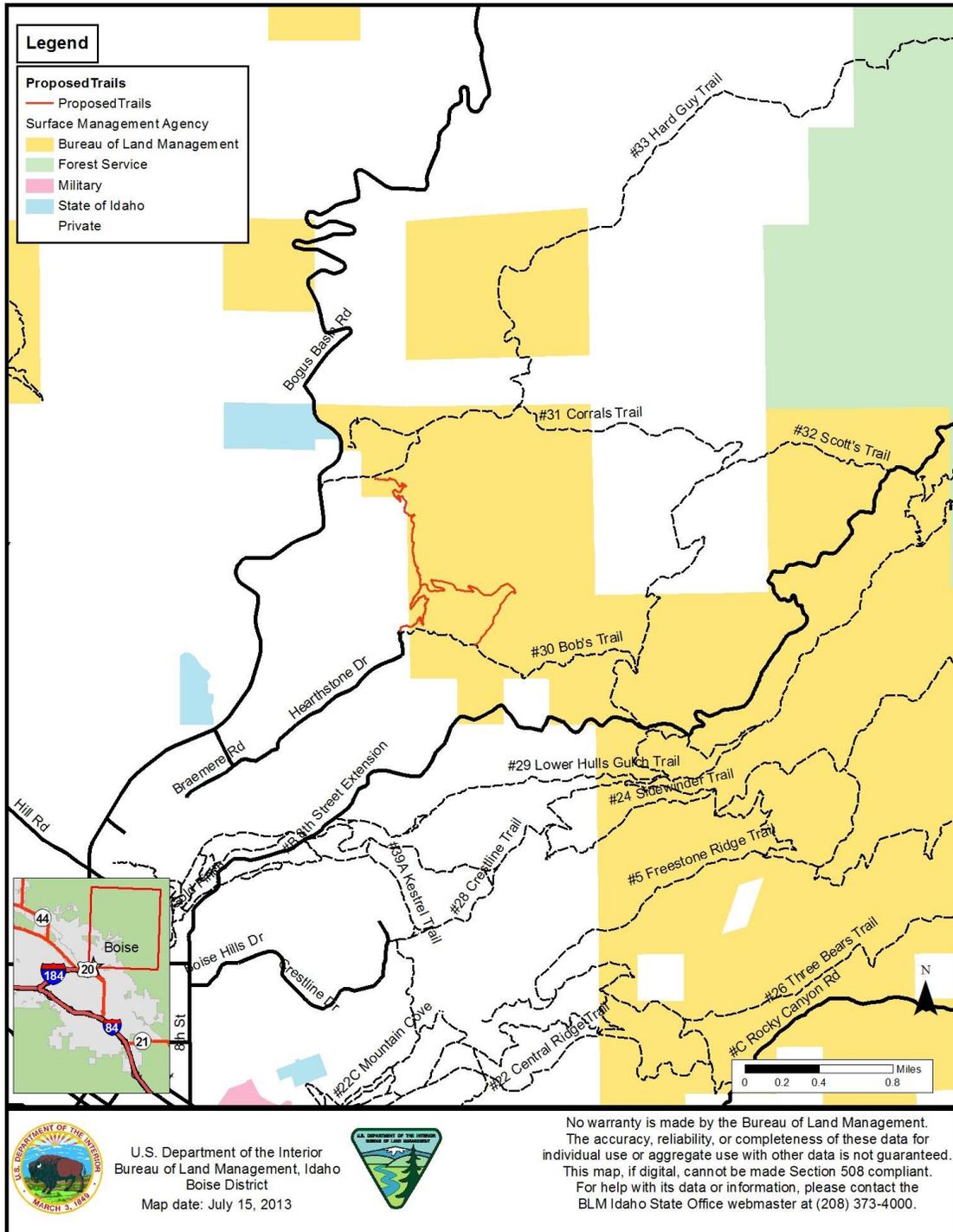
Levinski, Carla L. 1982 Best Management Practices for Road Activities, Vol. 1 Idaho Department of Health and Welfare Division of Environment, Boise Idaho.

USDI. 1988. Cascade Resource Area Resource Management Plan. Boise, Idaho BLM.

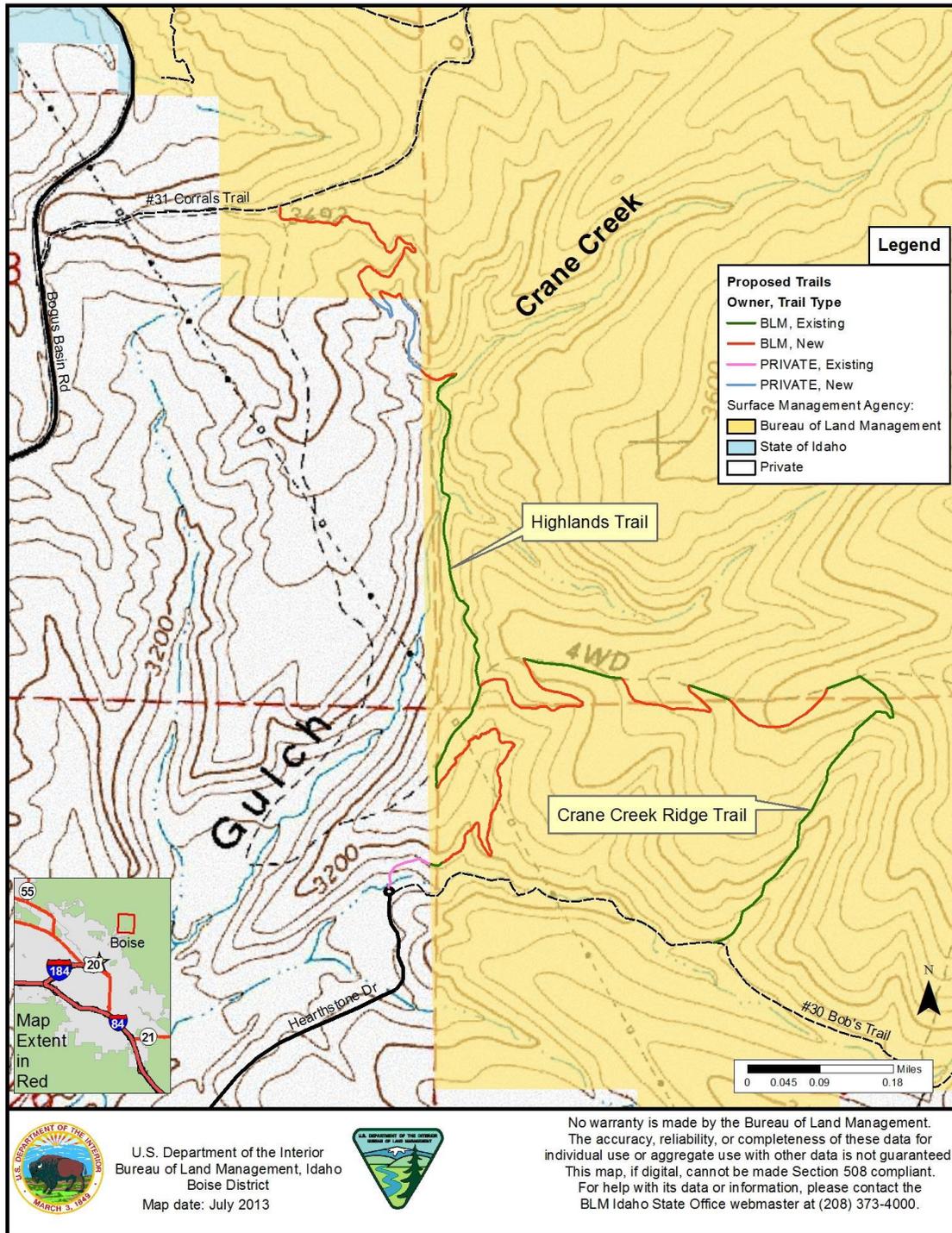
USDI RMIS. 2012. Recreation Management Information System (online computer database).

6.0 Maps

Map 1 - Project Area for Highlands & Crane Creek Ridge Trails



Map 2 - Proposed New Trails



U.S. Department of the Interior
Bureau of Land Management, Idaho
Boise District
Map date: July 2013



No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed. This map, if digital, cannot be made Section 508 compliant. For help with its data or information, please contact the BLM Idaho State Office webmaster at (208) 373-4000.