

Interagency Foothills Management Plan



DRAFT

Our Boise Foothills

2014

Interagency Foothills Management Plan

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ACRONYMS AND DEFINITIONS

ACEC	Area of Critical Environmental Concern
ACHD	Ada County Highway District
ACWPC	Ada County Weed and Pest Control
APA	Ada Planning Association
AUM	animal unit month
BLM	Bureau of Land Management
BMP	Best Management Practice
COMPASS	Community Planning Association of Southwest Idaho
DEQ	Division of Environmental Quality
FACA	Federal Advisory Committee Act
FACTS	Foundation for Ada-Canyon Trail System
GIS	Geographic Information Systems
ICL	Idaho Conservation League
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
ITD	Idaho Transportation Department
MOU	Memorandum of Understanding
OHV	off-highway vehicle
ORV	off-road vehicle
R2R	Ridge-to-Rivers
RA	Resource Area
SHPO	State Historic Preservation Office
SMS	Scenic Management System
SWIFT	Southwest Idaho Friends of Trails
SWIMBA	Southwest Idaho Mountain Biking Association
TMDL	Total Maximum Daily Load
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VQO	Visual Quality Objective
VRM	Visual Resource Management
WMA	Wildlife Management Area

EXECUTIVE SUMMARY

BACKGROUND TO FOOTHILLS OPEN SPACE PLANNING

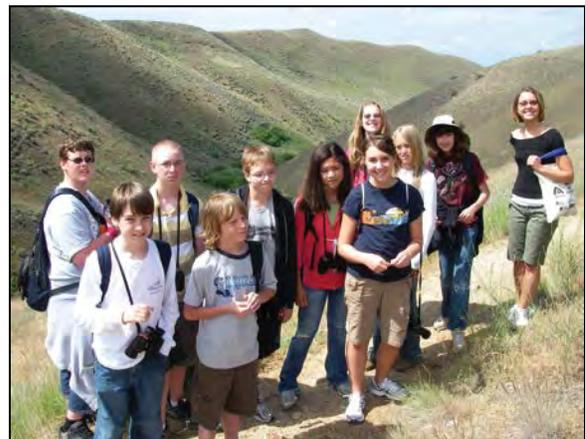
The foothills that rise above Boise (Foothills) offer a remarkable resource: a natural area supporting abundant wildlife, intact ecosystems, “out the backdoor” recreational access, and a distinctive open space backdrop to the Treasure Valley’s bustling, growing urban life.

With the goal of sustaining and enhancing the values of the Foothills, in 2000, Foothills land managers worked with the public to produce the *Public Land Open Space Management Plan for the Boise Foothills* (2000 Plan). The 2000 Plan established management actions for conservation, education, and public use of open spaces in the Foothills. The 2000 Plan relied heavily on direction from a 15-member community advisory committee with input from the following seven city, county, state, and federal agencies with public land management roles in the Foothills:

- City of Boise
- Ada County
- Boise County
- Idaho Department of Lands (IDL)
- Idaho Department of Fish and Game (IDFG)
- Bureau of Land Management (BLM)
- U.S. Forest Service (USFS)

The catalyst for the 2000 Plan was a 1999 Memorandum of Understanding (MOU) among the agencies recommending development of an open space management plan. The agencies entered the MOU in response to a policy of the *Boise Foothills Policy Plan (City of Boise)* adopted April 21, 1999 that says “the *Open Space Management Plan* shall be developed in cooperation with all of the agencies and governing bodies that have jurisdiction in the Foothills.”

The MOU indicated willingness by the seven public land management agencies to step outside traditional practices, transcend jurisdictional boundaries, and collaborate to administer public resources in the Foothills. The MOU signatories recognized the interconnectivity between all public



land parcels in the Foothills and the importance of addressing common resource management challenges together.

The 1999 MOU recommended that the agencies do the following:

- Develop and implement an integrated Open Space Management Plan for the Foothills public resources.
- Formalize and demonstrate a long-term commitment.
- Pursue and develop funding sources across jurisdictions.
- Address and understand issues of private landowners.
- Pursue an ongoing and meaningful public involvement and education process.
- Preserve existing public lands as open space.
- Acquire additional open space as appropriate to meet agency mission and function.

PROGRESS ON 2000 PLAN RECOMMENDATIONS

Much progress has been made on the recommendations of the 2000 Plan. Highlights include:

- Nature center
- New reserves

After more than 10 years of progress on goals in the 2000 Plan, the agencies began an updating process in 2012 that resulted in this revised 2014 Interagency Foothills Management Plan (2014 Plan). Through this process, the agencies again renewed their commitment to work in partnership on Foothills management issues as outlined in the new MOU.

OVERARCHING DIRECTION OF THIS 2014 PLAN

As Boise continues to grow, conservation of its Foothills open spaces will depend on the coordination and cooperation between public land management agencies, the public, and private landowners. The 2000 Plan needed to be updated to respond to changing issues, confirm previous directions, offer new approaches necessary to maintain a healthy open space system, and integrate conservation of wildlife, recreation uses, scenic vistas, natural areas, public uses, and cultural resources across public lands.

The overriding goal of the 2000 Plan, and this 2014 Plan, as identified by the agencies in their 1999 MOU, is as follows:

Local, State, and Federal agencies will cooperate to preserve, protect, enhance, perpetuate, and manage the resources of the Boise Front working together with private landowners.

This 2014 Plan recommends this overriding goal be implemented through the following critical actions:

- Establish a coordinating agency for Foothills open space stewardship.
- Educate citizens.
- Preserve public open spaces.

- Provide a range of sustainable public recreational opportunities.
- Conserve wildlife and beneficial vegetation.
- Provide for maintenance and conservation of public open space values.
- Work cooperatively with private property owners.

This 2014 Plan, like the 2000 Plan, looks first to establish goals for management of the public open spaces in the Foothills. Second, it identifies important values and recommends management strategies guiding decision makers toward publicly desired conditions. Third, it confirms previous and/or provides new recommendations for achieving and maintaining these conditions. And finally, this 2014 Plan allows for a highly flexible planning process essential to address the evolving needs and desires of the public.

NEED FOR THIS 2014 PLAN

Economic health and environmental well-being are not opposed, but are instead interwoven to produce a healthy region where the economy and community thrive. Boise's long-term success as a community relies on the health of its natural environment, economy, and civic culture.

The Community Planning Association estimates that the population of Boise will grow from roughly 205,671 to 290,891 by 2020. Ada County is predicted to grow from 392,365 to 514,844 by 2020 (U.S. Census 2010). The population of Boise County is likely to increase from 7,028 to 19,900 by 2020. Public open space values are affected by population growth. A review of available information suggests the population of the Treasure Valley, including residents of Boise, and emigrating people strongly support maintaining Foothills public lands for wildlife, aesthetic, recreational, cultural, and natural resources. In 2010, the City of Boise's survey showed XX% were in support of a second serial levy to conserve more land in the Foothills.

The Treasure Valley's population growth and economic expansion is driven in large part because of the area's renowned quality of life. This quality of life is enhanced by accessible recreation, abundant wildlife, and dramatic scenic open space resources provided in the Foothills. This 2014 Plan seeks to help preserve the valley's quality of life by developing a common vision for the future of the Foothills among Foothills public land managers and guiding interagency collaboration with private landowners. By undertaking this planning effort for public Foothills resources, Boise also strives to provide better stewardship for the surrounding open space.

Urban growth continues to affect public resources in the Foothills. Wildlife habitat, recreational uses, range fire management, and watershed conservation are just a few of the areas affected by growth. Public comments during the planning process indicate great public interest about whether and how Foothills natural resources can sustain their value in the face of growth and changing land use patterns.

While this 2014 Plan proposes management actions on public lands in the Foothills, it also recognizes the critical role of private landowners in resource conservation efforts since resource management issues address both public and private lands. This 2014 Plan respects private property rights and directs the agencies to work with willing landowners to protect and conserve resource values on private lands.

PLAN TOPICS

Traditional resource management plans, which are generally site specific, often do not consider how proposed actions fit into the context of the ecosystem. Under this 2014 Plan, the frame of reference is much broader. Although site-specific actions are necessary, they should be conducted in a broader ecosystem context and evaluated over a longer period. Because of the broader geographic approach taken by this 2014 Plan, private landowners and Boise County have been involved in its development.

This 2014 Plan specifically identifies goals, objectives, and recommendations for management of public lands in the Foothills. Those lands comprise approximately 47% (38,070 acres) of the total acreage in the Foothills planning area (Table 2). This 2014 Plan recognizes that public open spaces provide critical resources for both public use and protection and management of significant natural areas. This 2014 Plan also recommends that public land management agencies and private landowners work together to manage Foothills resources.

Public land management agencies should work collaboratively with citizens and private property owners to implement this 2014 Plan to ensure that long-term healthy conditions are met and that short-term demands are not simply accommodated. Foothills management decisions cannot be made by agencies only. Thus, this 2014 Plan specifically identifies the value and role of public participation in Foothills resource stewardship. While interagency collaboration is essential for conserving resource values in the Foothills, this 2014 Plan acknowledges and respects the responsibilities of each participating agency to follow its existing laws, rules, regulations, and agreements. This 2014 Plan also recognizes and respects the rights of private landowners.

LIMITATIONS OF THIS 2014 PLAN

This 2014 Plan is not a regulatory document. It does not regulate the private property rights of Foothills landowners, nor does it set firm regulatory requirements for individual public landowners. Rather, it seeks to help public agencies collaborate and work with willing private landowners to protect valuable Foothills resources. By working in partnership, the agencies and private landowners can enable the success of the 2014 Plan.

OPEN SPACE

As defined by this 2014 Plan, open spaces are areas that create our sense of place. They are dedicated to the preservation of our cultural heritage, protection of important resources, and provision of opportunities for recreation and other uses.

The following lists, based on input from the Citizens Advisory Committee, agencies, and the public, clarify what defines public open space as used in this document:

TABLE 1 OPEN SPACE AS DEFINED IN THIS 2014 PLAN¹

Open Spaces Include...	Open Spaces Are Not...
<ul style="list-style-type: none"> • Conservation lands that protect natural and wildlife resources 	<ul style="list-style-type: none"> • Residential subdivisions, or the scattered undeveloped parcels “leftover” in subdivisions or development agreements
<ul style="list-style-type: none"> • Lands that provide recreational opportunities 	<ul style="list-style-type: none"> • Commercial developments
<ul style="list-style-type: none"> • Lands that conserve high scenic quality and visual exposure 	<ul style="list-style-type: none"> • Golf courses
<ul style="list-style-type: none"> • Lands that protect natural hazard areas 	<ul style="list-style-type: none"> • Large parcel/40-acre residential developments
<ul style="list-style-type: none"> • Lands that protect significant heritage resources 	<ul style="list-style-type: none"> • Manicured and urbanized parks
	<ul style="list-style-type: none"> • Utility easements and rights-of-way

VISION FOR THE FUTURE

To ensure Foothills open spaces are conserved and available for future generations, the agencies developed this collaborative 2014 Plan. This 2014 Plan consolidates each agency’s planning documents into a single unified vision for Foothills public lands. The following statements summarize the collective vision of these agencies:

- We support an interconnected system of natural areas, recreation trails, and wildlife corridors that protect the integrity of public land values in the Foothills.
- We must make a long-term commitment to protect open space to preserve the character and diversity of the Boise Foothills public lands.
- We must commit to conserving and enhancing the ecosystems for wildlife that rely so heavily on the habitat found in the Foothills open space.
- We must commit to protecting and improving a full range of opportunities for the public to enjoy Foothills open space, including passive and active recreation.
- We must establish trail user rules and etiquette that protect Foothills resources and encourage good interactions for all trail users.
- We must build partnerships between private and public entities to take mutual responsibility in maintaining open space in the Foothills as an important place for people to learn, recreate, and rejuvenate.
- We must commit to educating open space users about the importance of open space for protection of habitat, water, soils, wildlife, views, and other conservation values so users understand and help protect these essential open space qualities
- We must commit to addressing a range of specific conservation, resource use, and land management issues ranging from the protection of viewsheds to protection of native vegetation and mitigate invasive species to new standards for trails and trailheads
- We must commit to using the recommendations and policies contained within this 2014 Plan to perpetuate the character of the Foothills. However, we must remain flexible in our planning approach to address situations as they arise.
- We must provide timely input on development applications in the Foothills.
- We must commit to new creative partnerships and strategies that can generate the resources needed to ensure the protection and ongoing use and enjoyment of the Foothills.

¹ While this 2014 Plan focuses on the larger blocks of public land as outlined in Table 2, it is important to note that lands in other ownerships, including subdivisions, golf courses, easements, and individual private residential properties, can contribute to the goals in this document. For example, residential developments, depending on their design, can have greater or lesser impacts on water quality, habitat, public recreation, or visual quality. Standards that address these issues are covered in local government zoning and subdivision codes.

Work is needed to expand the support and active assistance of the public, volunteers, user groups, nonprofits, and other entities to add to the resources needed to meet the goals presented in this 2014 Plan.

PROJECT LOCATION AND CHARACTERIZATION

The Foothills open space planning area includes approximately 80,467 acres located in both Ada and Boise Counties to the immediate north of Boise, Idaho. The Foothills project area boundaries include Hill Road and Warm Springs Avenue to the south, State Highway 21 to the east, State Highway 55 to the west, and Boise Ridge Road and the Ada County boundary to the north (see [Figure 1](#) for ownership information).

The Foothills are characterized as a transition between the valley floor, recognized by the arid lowlands surrounding the verdant ribbon of the Boise River, and the coniferous peaks of the Boise Ridge. Indigenous vegetation includes bunchgrasses and sagebrush, interspersed with concealed ribbons of riparian vegetation in drainages. The overall elevation gain from the valley floor is 3,965 feet, rising from an elevation of 2,610 feet near Hill Road to more than 6,575 feet mean sea level at Little Deer Point. The average precipitation is 12.1 inches near the valley floor and 18 to 20 inches near the Boise Ridge. Temperatures near the valley floor generally range between 21°F and 36°F for January and 58°F and 90°F for July.

An existing network of roads provides access to public and private lands in the Foothills. Dry Creek, Seaman Gulch, and Pierce Gulch Roads provide access to the western part of the project area. Eighth Street and Rocky Canyon, Cartwright, Bogus Basin, and Table Rock Roads provide access to the central portion of the project area. Access to the eastern part of the project area is seasonally limited on Shaw Mountain and Highland Roads. Approximately 42,397 acres in the Foothills are privately owned and 38,070 acres are held in public trust. Those lands in public ownership are the focus of this 2014 Plan (see [Table 2](#)).

TABLE 2 LISTING OF PUBLIC OWNERSHIP IN THE FOOTHILLS

Ownership	Acreage	Percentage of Total Foothills Planning Area Acreage
BLM	11,888.0	14.7
USFS	8,544.0	11.0
State of Idaho	7,151.0	8.8
IDFG	6,491.0	8.0
U.S. Army Corps of Engineers	860.0	1.0
Ada County	2,307.0*	2.8
Boise City	829.0	1.0
Total Public Land	38,070.0	47.3
Total Private Land	42,397.3	52.7
Foothills Planning Area	80,467.3	100.0

*Ada County Active Landfill.

DIRECTION OF PAST PLANNING EFFORTS

Following is a summary of events and past planning activities that contributed to this 2014 Plan.

Mid-1970s. Comprehensive planning for the Foothills started with the inception of the Ada Council of Government's (ACOG) *Concept Plan*.

Mid-1970s. Ada County and Boise City had comprehensive land use plans, but both plans were becoming outdated. At that time, many projects were developed in the county and later annexed into the city. City and county plans were inconsistent and the city had little control over design for county projects.

1975. The Boise City area of impact boundary was included in the Local Planning Act of 1975. The intent of the act was to give the city planning control over areas that would be annexed in the future.

1978. The *Boise City Comprehensive Plan (Metro Plan)* was being developed in 1978. The Metro Plan Steering Committee knew that it was physically impossible to make the downtown the geographic center. However, it could act as the demographic center by increasing densities in the southeast and northeast areas and by permitting development in the Foothills. Because of controversies centered on Foothills development, the decision was made to "permit Foothills development" instead of encouraging it. Based on the issues and concerns surrounding Foothills development, the Metro Plan Steering Committee recommended policies that were adopted and set forth in the *Metro Plan*.

The major issues facing the Metro Plan Steering Committee were the engineering aspects of Foothills development and the impact from traffic on the built community. Environmental concerns associated with wildlife, wetlands, and public open space were not addressed in detail.

The *Ada County Comprehensive Plan* had addressed the major wildlife concern over deer winter range habitat. The plan left individual projects with little guidance regarding transportation, environmental, aesthetic, recreation, and open space issues.

1984. Boise City adopted the *Foothills Ordinance*.

1988. The city and county adopted the Uniform Building Code (ICBO 1988). The city's *Hillside and Foothill Areas Development Ordinance*, county's *Hillside Regulations*, and *Uniform Building Code* generally protect public safety and mitigate the potential for property damage.

1989. The Boise Front Coalition was formed as an association of concerned citizens, private landowners from the Foothills, and governmental agencies responsible for the management of the public lands in the Foothills.

July 1992. IDFG Rare Plant and Riparian Vegetation Inventory of the Boise Foothills produced by Moseley, Mancuso and Hilty.

1992. Citizen efforts to purchase 100 acres and create Hulls Gulch Reserve.

February 1993, Boise City Heritage Preservation Committee, evaluating potential public preservation sites.

1993. The Ada County *Ridge-to-Rivers Pathway Plan* was adopted. The comprehensive pathway plan was designed to improve pathways in Ada County.

1994. The *Foothills Plan Background Report* was completed. The report described the resources associated with the Foothills, their context, and sensitivity.

February 1996. The seven federal, state, and local managing agencies in the Foothills signed a MOU.

August 26, 1996. A human-caused fire consumed 15,300 acres (22 square miles) of the Boise Foothills. The fire encompassed all of Hulls Gulch and a large portion near Bogus Basin. Rehabilitation work started immediately to mitigate possible flooding. The agencies spent \$3.3 million to reduce erosion and restore the watershed. A five-year monitoring program began shortly after rehabilitation efforts.

January 1997. The *Boise City Comprehensive Plan* was adopted. The plan set forth guidelines for achieving a community vision.

March 1997. The *Boise City Foothills Policy Plan* was adopted as an amendment to the *Boise City Comprehensive Plan*. The plan presented policies for continued development in the Foothills. The plan called for open space management to be developed.

July 20, 1998. The Boise City Council adopted the *Interim Foothills Transportation Plan* as an amendment to the *Boise City Comprehensive Plan*.

2000 *Public Lands Open Space Management Plan for the Boise Foothills*. The 2000 Plan, the earlier version of this 2014 Plan, set planning direction for the open space in the Foothills and focused on conserving natural resource values, educating the public, and providing sustainable recreation and resource use opportunities.

May 2001. \$10 Million Foothills Serial Levy Passes.

2002. Boise City Council created the Foothills Conservation Advisory Committee and the mayor appointed 12 members.

2003. Boise National Forest Forest Plan Revisions. ????

March 2006. Harris Ranch Wildlife Impact Assessment and Management Plan.

2007. Ada County Comprehensive Plan – includes chapters on natural resources and recreation.

March 2008. Establishment of Boise City Department of Arts & History.

April 2008. Ada County Open Space Advisory Task Force and Recommendations.

Spring 2009. Ada County Open Space and Trail Committee formed.

February 2010. Ada County Planned Community Subarea Development Regulations – (8-8-4A) Minimum Urban Public Service Level Standards, Natural and Developed Open Space.

May 2011. 10th Anniversary of the Foothills Serial Levy – 10,400 Foothills acres protected by donation, acquisition, exchange, and easement for \$10.8 million.

?????. Ada County Open Space and Trails Committee.

?????. 5,000-acre Legislated Land Exchange involving IDL, BLM, and USFS.

?????. BLM revisiting 4 Rivers Office Plan.

?????. Updated BLM Fire Management Plan.

?????. Serial levy vote.

2014 PLAN ORGANIZATION, PRIMARY GOALS, AND RECOMMENDATIONS

This 2014 Plan is organized into two main parts: the Goals, Objectives, and Recommendations section and Background section.

Part 1: Goals, Objectives, and Recommendations

This section of the 2014 Plan provides an overview of the plan, the principles under which it was developed, and goals, objectives, and recommendations. The proposed goals, objectives, and recommendations address the environment, recreation, and other resource uses; management and maintenance; and administration. The main goals of the 2014 Plan address the areas described below.

Environment

- Protect and restore native, special status, and other desirable vegetation.
- Protect soils to reduce erosion, repair erosion damage, and improve water quality.
- Manage watersheds through protection and enhancement of associated resources.
- Protect and enhance wildlife habitat and related corridors to sustain wildlife that depend on the Foothills for survival.

Resource Uses

- 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.
- Manage the Foothills for safe and sustainable sportsman opportunities.
- Work with managing agencies to ensure that transportation plans complement this 2014 Plan.
- Continue to operate and fully develop the landfill to meet municipal solid waste disposal needs of county residents.
- Identify and protect existing cultural sites and educate users about their importance to the history of the area.

- Manage grazing activities to be compatible with established management practices to ensure ecosystem sustainability.
- Retain, preserve, and enhance the natural scenic values of the Foothills.

Management and Maintenance

- Develop funding proposals to supplement limited resources for programs and projects recommended by this 2014 Plan.
- Establish a public involvement and education process.
- Preserve existing public lands as public open space.
- Identify private open space parcels that can enhance public environmental, recreational, and visual resource values within the Foothills.
- Ensure that public safety and resource conservation needs continue to be addressed through existing cost-effective coordinated mutual-aid agreements and by an enhanced public-agency presence in the Foothills.

Administration

- Establish an MOU between the seven land management agencies to implement this 2014 Plan.
- Improve Foothills public land administration and oversight.
- Coordinate public agency actions in the Foothills through selection and appointment of a coordinating agency to take a lead role in Foothills stewardship.
- Establish clear lines of communication between the public and the agencies.
- Enable the participation of citizens, private landowners, and users in Foothills public land decision-making processes.
- Minimize administrative costs to taxpayers.
- Optimize public resources available for Foothills stewardship.
- Maintain and continue to fund the Ridge-to-Rivers Trail Program.
- Ensure value for contributions from the agencies.
- Comply with all applicable legal requirements, particularly the Federal Advisory Committee Act (FACA).
- Commit to measuring management and stewardship performance.
- Assist agencies, nonprofits, private landowners, and private citizens interested in open space conservation in the Foothills.

Part 2: Background

The second part of this 2014 Plan provides extensive background information as follows.

Environment

Environmental reports address conservation of the natural resources located within the planning area and provide updated information about natural resource values found in the project area. Natural systems function on many levels. Given urban growth in the region, conserving those features requires higher levels of cooperation and interagency coordination than was needed in the past.

Resource Use

Recreational use of Foothills resources continues to increase, creating new management challenges for the agencies. Public land managers are faced with complex decisions regarding new trail construction, trail use, trail closures, hunting, visual and cultural resource conservation efforts, and conflicts between recreation, wildlife, and other resource uses.

Management and Maintenance

Upkeep, maintenance, and development of resources throughout the Foothills is an ongoing management challenge for the agencies. From funding and resource allocation to trail standards and construction, the maintenance activities discussed in this section are necessary for public resource management in the Foothills.

Administration

The ultimate success of this 2014 Plan depends on the coordination, cooperation, and collaboration among the agencies for Foothills public resource management. This section proposes that the agencies charter and support an open space management program to be administered by a coordinating agency chosen by the seven land management agencies. The coordinating agency leading the implementation of the plan would be critical to the successful implementation of the goals, objectives, and recommendations.

Through the established coordinating agency, the goals, objectives, and recommendations of this 2014 Plan stand a far greater chance of being implemented than if they were left to each agency to administer. One coordinating agency can draw from the knowledge, resources, staff, and success of the participating agencies to implement the plan. The plan also calls for increased citizen participation in the management decision-making process.

REFERENCES

International Conference of Building Officials (ICBO). 1988. Uniform Building Code.
U.S. Census Bureau. 2010.

1. BACKGROUND —ADMINISTRATION:

1-1 ESTABLISH A LONG-TERM COMMITMENT

This section proposes a structure by which local, state, and federal agencies involved in the Boise Foothills would cooperatively oversee and efficiently manage the resources of the Foothills. This section is based on Objective 2 of the 1999 Memorandum of Understanding (MOU) to: “develop a formal Memorandum of Agreement among local, state and federal agencies to cooperatively oversee and efficiently manage the resources of the Boise Front under the auspices of the Open Space Management Plan.”

This section identifies each agency’s leadership capabilities and potential. It does not recommend who should take this leadership responsibility. Instead, it provides the information necessary to enable interagency dialogue so that a decision can be made in a public forum. Ridge-to-Rivers (R2R) and Boise River Wildlife Management Area (WMA) programs provide good models for the development of the Foothills management structure. Based on the strengths and weaknesses of those programs, which serve as indicators for this organizational structure, the objectives of the Foothills administration structure will be to:

- Establish an MOU between the seven land management agencies to implement the *Public Land Open Space Management Plan for the Boise Foothills*.
- Improve Foothills public land administration and oversight.
- Coordinate public agency actions in the Foothills through selection and appointment of a coordinating agency to take a lead role in Foothills stewardship.
- Establish clear lines of communication between the public and the agencies.
- Enable the participation of citizens, private landowners, and users in the Foothills public land decision-making process.
- Minimize administrative costs to taxpayers.
- Optimize public resources available for Foothills stewardship.
- Maintain and continue to fund the R2R Trail Program.
- Ensure value for contributions from the agencies.
- Comply with all applicable legal requirements, particularly the Federal Advisory Committee Act (FACA).
- Commit to measuring management and stewardship performance.
- Assist agencies, nonprofits, private landowners, and private citizens to facilitate open space conservation in the Foothills.

DESCRIPTION OF AGENCIES, JURISDICTIONS, OWNERSHIP, AND ROLES AND RESPONSIBILITIES

Jurisdiction and ownership in the Foothills is divided among the following seven federal, state, and local agencies, all of which are participating in this Foothills planning effort:

- Ada County
- Boise City
- Boise County

1. BACKGROUND ADMINISTRATION:

- Boise National Forest of the USDA Forest Service (USFS)
- Cascade Resource Area of the U.S. Bureau of Land Management (BLM)
- Southwest Region of the Idaho Department of Fish and Game (IDFG)
- Idaho Department of Lands (IDL)

Ada County. Ada County is charged with the administration of the entire land area within its boundaries, except for incorporated cities and state or federally owned lands. In addition to general administration responsibilities, Ada County is required to establish and implement land-use controls and provide law enforcement services to areas in its jurisdiction.

Fire protection is not a function of the county, but such protection is provided through independent volunteer and professional fire districts within specific areas of the county. Ada County is authorized to make arrangements with other public agencies to perform or obtain services. Within the Boise City area of impact, Ada County coordinates and implements land-use control. An area of impact is that area within which a city expects to provide services and expand development. Both Ada County and Boise City coordinate with IDFG for input into land-use decisions involving wildlife and habitat issues in the Foothills.

Ada County's Parks and Waterways Department, under the direction of the Board of County Commissioners, is charged with "...providing water-based recreation facilities, regional and specialized parks, trails, pathways and natural open spaces" to enhance the quality of life of its residents. The department has a staff of seasonal workers and five full-time employees and a total budget of about \$1.4 million for fiscal year 2015. Ada County owns and manages 2,400 acres, including the Hidden Hollow Landfill, in the western Foothills. A number of recreational uses have been proposed for parts of the landfill property in recent years. Ada County expends about \$170,000 annually in the Foothills. Ada County's primary interests in the Foothills, therefore, include the provision of public open spaces and recreation, operation of the landfill, public safety, and coordination of urban development with Boise City.

Boise City. The City of Boise is established as a charter city by Idaho statute, giving it broader jurisdictional abilities than other general-purpose governments in the state. Boise City is charged with the administration of the entire area within its boundaries, including establishing and implementing land-use controls, law enforcement, fire protection, and other administration. Through an agreement with Ada County, Boise City also advises the county on land-use controls and implementation in its designated area of impact. In the Foothills area, Boise City's area of impact generally includes the mostly undeveloped areas between existing urban development and the northernmost power transmission line below the ridge of the Foothills. Boise City is authorized to contract with other agencies to provide or obtain public services. Boise City's annual expenditures in the Foothills are estimated at \$100,000 to \$125,000.

Through the Boise Parks and Recreation Department, Boise City manages 2,605 acres of land for various public park and recreation purposes, of which about 870 acres, or a third of the total, are within Boise City's Foothills planning area. The mission of the Boise Parks and Recreation Department is to:

- Provide parks, open space, and trails systems for Boise residents.

1. BACKGROUND ADMINISTRATION:

- Offer recreation programs and activities in a safe and efficient manner that meets all needs and desires.
- Enhance the urban appearance and environment using landscaping, trees, and open space.
- Foster and support citizen well-being and healthy community environments.

The Board of Parks and Recreation oversees the department under the direction of the Mayor and City Council. The Boise Parks and Recreation Department has a staff of 145 people and a proposed budget of about \$20 million for Year 2014.

Boise County. Boise County, like Ada County, is charged with the administration of the area within its boundaries, with the exception of incorporated cities and state or federal lands. As with Ada County, Boise County is charged with general administration of its lands, including land-use control and law enforcement. Also like Ada County, special fire districts provide fire protection with specific jurisdictions within the county. Unlike Ada County, Boise County has no administrative function for parks, recreation, or open space. Boise County is authorized to enter into agreements with other agencies to provide or obtain public services.

While Boise County's jurisdiction includes only the northernmost part of the Foothills, comprised mainly of USFS land, the county assists the USFS in its jurisdiction and is responsible for protecting life and property and for enforcing laws in the privately owned areas surrounding the Boise National Forest. Recreationists in this area often require the county sheriff's services. Law enforcement services and land use and development in Boise County will be affected by whatever direction of implementation and enforcement is determined for the Foothills.

Boise National Forest. The USFS, Boise National Forest's Foothills Management Area Unit lies primarily in Boise County, with small areas within Ada County. USFS jurisdiction extends beyond this unit, though that jurisdiction is outside the Foothills. The entire Mountain Home Ranger District encompasses about 750,000 acres. The total Foothills unit is 6,317 acres. The USFS mission is "...to achieve quality land management under the sustainable multiple-use management concept to meet the diverse needs of people". Federal land management agencies are charged with full management of natural resources within their jurisdictional boundaries, law enforcement, and fire protection, though the BLM is responsible for initial attack of wildfires in the Boise National Forest, which addresses most fires in the Foothills. The USFS is authorized to establish agreements with other public agencies to obtain or provide public services. The interests of the USFS, therefore, include access, use, protection of its lands and resources, and provision of enforcement and emergency services.

Bureau of Land Management. The BLM manages 6,000 acres of the Foothills. This area immediately adjoins private landownership within the jurisdiction of Ada County and the Boise City area of impact. The Foothills unit is part of the 600,000-acre Cascade Resource Area, which in turn is part of the 5.5-million-acre Boise District. The BLM's mission is "to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." The Foothills area has been designated as an area of critical environmental concern (ACEC) due to the sensitivity of the natural resources to human use; therefore, the BLM has established resource-use limitations for the area. The BLM has full responsibility for the area in its jurisdiction, including law enforcement and fire protection. Cooperative agreements, however, exist with Boise City, Ada

1. BACKGROUND ADMINISTRATION:

County, and independent fire districts in the area for law enforcement and fire protection of its lands and resources, control of access, and provision of emergency services because of the approaching urban interface. The BLM spends approximately \$300,000 annually on the Foothills; the largest amounts are for fire protection (\$164,000) and for staff and management support (\$40,000).

Idaho Department of Fish and Game. IDFG manages the 12,000-acre Boise River WMA (of which IDFG owns about 6,500 acres), divided among four management segments in Ada, Boise, and Elmore Counties. Management is conducted under a Cooperative Resource Management Plan with other state and federal agencies and private landowners. The Boise River WMA provides mule deer winter range, watershed protection, and upland game habitat. The Boise River WMA has an annual budget of about \$81,000 (about half of which is spent on the Foothills unit). About 15,000 acres of the Boise River WMA lie in the far east side of the Foothills. IDFG is under the direction of its commission, the members of which are appointed by the governor. IDFG's primary mission is "to preserve, protect, perpetuate and manage wildlife" throughout the state. Its jurisdiction, therefore, goes beyond the Boise River WMA. By ordinance, IDFG is required to be consulted regarding development in environmentally sensitive areas in Boise City, Ada County, and Boise County. This requirement is countywide in Ada County. IDFG's interests in the Foothills, therefore, include impacts of urbanization on wildlife habitat, management of the Boise River WMA, and acquisition of land rights to sustain wildlife.

Idaho Department of Lands. The IDL owns and manages approximately 6,000 acres in the Foothills and is responsible for 2.5 million acres statewide. The IDL answers to the State Lands Board, composed of the governor, attorney general, secretary of state, state controller, and superintendent of public instruction. The IDL is exchanging 2,000 acres of its lands in the Foothills for BLM lands in other areas of the state and would like to exchange all of its holdings in the Foothills. IDL's mission is to "manage the endowment lands in such a manner as will secure the maximum long-term financial return to the institution to which granted." Therefore, IDL's interests in its Foothills properties are for securing maximum long-term financial returns on its lands and the effects of public use on the land's values and for maximizing benefits to other resources. The IDL provides law enforcement and fire protection for its lands.

2-1 2013 UPDATES GOALS, OBJECTIVES, AND RECOMMENDATIONS ENVIRONMENT: GOALS, OBJECTIVES, AND RECOMMENDATIONS

The Boise Foothills are a diverse and complex ecosystem comprised of natural resources, all dependent on one another for proper function. These resources include the following:

- Watershed and Watershed Function
- Soils
- Vegetation
- Wildlife

Because conservation of these natural resources and consistency in planning efforts is crucial to maintain balance in this ecosystem, this section presents the goals, objectives, and recommendations for conserving the natural resources identified in the Foothills.

As private land uses and ecosystems change, sustainability of ecosystem functions will become more difficult and emphasize collaboration between the public land managers and private landowners across jurisdictional boundaries.

Natural systems function on many levels. Therefore, the recommendations outlined in this section seek to protect or improve natural areas. The following principles were used to develop these recommendations:

- Protect and restore native, special status, and other desirable vegetation.
- Protect soils to reduce erosion, repair erosion damage, and improve water quality.
- Manage watersheds through protection and enhancement of associated resources.
- Protect and enhance wildlife habitat and related corridors to sustain wildlife that depend on the Foothills for survival.

WATER RESOURCES RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Manage watersheds through protection and enhancement of associated resources.	#1 Develop and implement an integrated watershed plan.	<ul style="list-style-type: none"> • Establish watershed health standards to create a monitoring scheme using indicator species. • Regularly monitor streams within the watershed in developing the baseline and collecting trend data. • Update floodplain data map that illustrates streams in the Foothills when new data become available.
	#2 Coordinate with all landowners (private and public) to manage watersheds for long-term health.	<ul style="list-style-type: none"> • Provide a link on Boise City's website for landowners (private and public) where relevant watershed information (plants, chemicals, and water quality results) is located.
	#3 Protect drinking water recharge areas (work should be completed to identify these areas).	<ul style="list-style-type: none"> • Keep current on further identification and mapping of recharge areas by the Idaho Department of Water Resources (IDWR). • Provide a link or a map on Boise City's website identifying recharge areas.
	#4 Protect ground water from pollutants and contaminants.	<ul style="list-style-type: none"> • Post on Boise City's website the IDWR and Department of Environmental Quality (DEQ) representative responsible for locating, identifying, and monitoring contaminated areas in the Foothills. • Teach citizens and user groups about contamination levels of various pollutants and proper storage and disposal of these pollutants.
	#5 Consider watershed values when designing new public facilities.	<ul style="list-style-type: none"> • Coordinate with public land managers to ensure proper siting of roads, trails, and recreation facilities that respect watershed values prior to commencing work projects; require inclusion of stormwater Best Management Practices (BMPs). • Identify and map where trails and surrounding features are eroded and/or causing excessive erosion. • Consider design modifications, relocation, or closure of identified eroded areas.
	#6 Teach users about the importance of restoring, maintaining, and protecting the proper functioning condition of a watershed.	<ul style="list-style-type: none"> • Create trailhead signage, brochures, and awareness programs to teach users about watersheds and their function.

[Ongoing recommendations in blue](#)

SOILS AND GEOLOGY IN THE BOISE FOOTHILLS RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Protect soils to reduce erosion and repair erosion damage.	#1 Identify and control erosion and provide for active monitoring and management.	<ul style="list-style-type: none"> • Identify and list erosion-control methods and tools. • Avoid disturbing areas with high erosion potential. • Use existing soils and geologic maps to assist in developing trails. • Use BMPs to address soil erosion and ground pollution and contamination.
	#2 Avoid geologic hazards, such as landslides and faults.	<ul style="list-style-type: none"> • Use mapping to avoid geologic hazards.
	#3 Protect native and desirable vegetation.	<ul style="list-style-type: none"> • Seed disturbed areas with a native and desirable plant mix to prevent erosion. • Use Integrated Pest Management (IPM) to control invasive plant species.
	#4 Use proper trail design techniques.	<ul style="list-style-type: none"> • Refer to Ridge-to-Rivers 2011 Trail Operations Plan for trail BMPs.
	#5 Reduce impacts on soils and vegetation through proper planning and direct coordination between all public land managers and private landowners.	<ul style="list-style-type: none"> • Develop educational opportunities between private landowners and public land managers to discuss soil management practices. • ?
	#6 Teach users about the importance of restoring, maintaining, and protecting the proper functioning condition of the ecosystem.	<ul style="list-style-type: none"> • Continue educational outreach programs at the Jim Hall Foothills Learning Center. • Create a brochure that discusses and illustrates the importance of the major environmental components (including water, soils, vegetation, and wildlife). • Use trail signage to discuss and illustrate the importance of the major environmental components. • Enhance community public relations by teaching Foothills work crews about environmental issues that they can share with the public.
	#7 Reduce the likelihood of new erosion scars or defined geologic features.	<ul style="list-style-type: none"> • Protect or avoid areas with unique geology, such as rock outcrops and erosive ridgelines that provide scenic values.

Ongoing recommendations in blue

PLANT COMMUNITIES, RARE PLANTS, AND WEEDS RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Protect and restore native, special status, and other desirable vegetation.	#1 Inventory and monitor the composition and distribution of plant communities in the Foothills.	<ul style="list-style-type: none"> • Update the composite map identifying the composition and distribution of plant communities in the Foothills. • Visit new sites in the Foothills to assess rare plant populations.
	#2 Maintain biological diversity in the Foothills by protecting and improving a variety of habitats, including native and special status plant species.	<ul style="list-style-type: none"> • Protect special status species and native plant communities through new reserves, special management prescriptions, trail mitigation measures, or other management actions. • Monitor the composition of vegetation and habitat across the Foothills to ensure biological diversity.
	#3 & #4 Teach Foothills users about special status species, native plant communities, and noxious weed invasions.	<ul style="list-style-type: none"> • Establish a program to teach Foothills users and landowners about the protection of special status species, native plant communities, and noxious weed invasions. • Monitor and demonstrate, through studies, progress made to enhance and manage special status and native plant communities. • Create seed mix and list of suppliers for desirable native plant species for landscaping and restoration projects.
	#5 Manage the spread of invasive and noxious weeds throughout the Foothills.	<ul style="list-style-type: none"> • Develop a coordinated interagency program for weed management that includes Ada County Weed and Pest Department, public land managing agencies, and private landowners. • Map noxious weed populations on all public lands in the Foothills. • Establish a funding source for noxious weed control and look for grant opportunities. • Seek opportunities to use IPM tools to control known noxious weed populations.

[Ongoing recommendations in blue](#)

WILDLIFE RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Protect, enhance, and rehabilitate wildlife habitat to sustain wildlife in the Foothills.	#1 Manage Foothills open space for wildlife habitat.	<ul style="list-style-type: none"> • Identify and quantify vegetation habitat areas by size and function. • Identify and map wildlife linkage corridors. • Secure open spaces that connect with surrounding native habitat.
	#2 Minimize human disturbance.	<ul style="list-style-type: none"> • Secure as many large areas of native habitat as possible when negotiating for purchase or exchange of Foothills properties. • Minimize road construction and trails in areas of highly sensitive wildlife habitat as identified by agencies. • Identify and mitigate potential impediments to wildlife movements and sources of additional habitat fragmentation. • Identify and remove unnecessary rangeland fences. • Ensure new fences in wildlife migration corridors allow for safe passage of wildlife. • Implement seasonal closures of R2R trails in areas of high wildlife value where appropriate. • Develop and implement a strong dog leash policy in the Foothills, to meet plan goals, including minimizing recreational conflicts and protecting areas designated by IDFG as high value to wildlife.
	#3 Teach users about the importance of maintaining wildlife habitat and wildlife corridors.	<ul style="list-style-type: none"> • Conduct educational seminars on Foothills wildlife and habitat, including special status species. • Create interpretative signage illustrating the Foothills ecosystem and corresponding wildlife values. • Create a brochure, complete with illustrations, describing wildlife and special status species found in the Foothills. • Use technology to engage users. • Host special on-site projects with the public to rehabilitate wildlife habitat.
	#4 Promote growth of native and desirable grasses, forbs, and shrubs.	<ul style="list-style-type: none"> • Improve forage conditions by establishing seedlings or plantings of bitterbrush and other palatable shrub species. • Identify and map winter range in need of rehabilitation and improve forage conditions.

2-1 2013 UPDATES
GOALS, OBJECTIVES, AND RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
	<p>#5 Protect riparian, sagebrush steppe, and mountain shrub species dependent on these habitats.</p>	<ul style="list-style-type: none"> • Monitor riparian obligate or dependent species. • Monitor and evaluate the ecological condition of wildlife habitat in the Foothills. • Provide alternative water sources where human impacts on natural sources can be avoided (such as flood-control ponds, guzzlers, and exclosures). • Identify and monitor sagebrush obligate or near-obligate species in the Foothills. • Identify and map sagebrush steppe habitat.
	<p>#6 Minimize disturbances to wintering big game populations by seasonally limiting access to winter range.</p>	<ul style="list-style-type: none"> • Reduce environmental impacts of trail use and impacts on trails by having agency managers close specific trails or trail segments in response to changes in weather, on a seasonal and/or daily basis. • Institute permanent or seasonal road closures where problems exist or are expected.
	<p>#7 Take steps to prevent large-scale wildfires that would result in the further establishment of exotic annual grasses and degradation of wildlife habitat.</p>	<ul style="list-style-type: none"> • Create an interagency wildland fire prevention agreement and outline annual Wildland Urban Interface mitigation projects in the Foothills.

Ongoing recommendations in blue

2-2 2013 UPDATE GOALS, OBJECTIVES, AND RECOMMENDATIONS

RESOURCE USE IN THE BOISE FOOTHILLS: GOALS, OBJECTIVES, AND RECOMMENDATIONS

As recreational use of Foothills resources continues to increase, public land managers must strike a balance between sustainable recreational opportunities and traditional uses and natural resource conservation. While use of the Foothills can create conflicts with conservation goals, including protection of water, soil, and wildlife, public activities can also support these goals. Direct support for conservation can occur, for example, through programs that enlist volunteers to help eradicate noxious weeds, or rebuild eroding trails. Indirect support comes, for example, through recreational use of open space that creates a stronger sense of stewardship and greater willingness to support agency policies and funding needed for management of Foothills resources.

The goals, objectives, and recommendations presented in this section provide guidance and focus on the need to balance these conservation efforts across the Foothills through a coordinated process. Seven key management goals are identified in this section: Recreation – 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.

- Hunting and Trapping – Manage for safe and sustainable sportsman opportunities.
- Transportation – Work with managing agencies to ensure that transportation plans complement the Interagency Foothills Management Plan.
- Solid Waste – Continue to operate and fully develop the landfill to meet municipal solid waste disposal needs of county residents.
- Cultural Resources – Identify and protect existing cultural sites and educate users about their importance to the history of the area.
- Grazing – Manage grazing activities to be compatible with established management practices to ensure ecosystem sustainability.
- Visual Resources – Retain, preserve, and enhance the natural scenic values of the Foothills.

RECREATION RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
<p>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.</p>	<p>#1 Manage recreation uses to meet growing and changing public recreation needs and be compatible with the natural resources found in the Foothills.</p>	<ul style="list-style-type: none"> • Maintain and expand recreational opportunities, including improving access to recreation destinations, improving trail connectivity, and providing better facilities. • Locate and design new trails to meet recreational needs, create more sustainable trails, and avoid compromising sensitive plant species, wildlife habitat, water quality, and aesthetics. • Seek opportunities to conserve property with ecological diversity. Develop ways for the public to interact and learn about the ecological resources on properties where trails are not compatible with resource protection. • Assess existing recreational uses to ensure compatibility with ecological diversity (soil, plants, and wildlife) of conserved property. • Encourage R2R (R2R) to work with trail user groups on seasonal closures. <p><i>Implementation Actions</i></p> <ul style="list-style-type: none"> • Continue to fund the R2R Program. • Leverage local volunteer resources for the maintenance and construction of trails and other recreation facilities before considering contracting.
	<p>#2 Manage trails and trailheads to maintain and improve recreational opportunities while protecting Foothills resources, taking nonwildlife-based recreational pressure off the Boise River WMA, and reducing trail conflicts.</p>	<ul style="list-style-type: none"> • Provide opportunities for a variety of trail experiences (e.g., pedestrians only, no dogs, and downhill mountain bikers). • Encourage a variety of passive trail uses – wildlife viewing, art classes, and historical and ecological education. • Work with Bogus Basin Resort and Boise National Forest to seek opportunities for nonmotorized trail and trailhead expansion. • Establish trail access agreements with willing private landowners to maintain trail connectivity and prevent unmanaged trail use; partner with private owners to provide trail etiquette information. • Work with neighboring private landowners and the public to encourage Foothills users to respect private property. • Educate trail users about the importance of the WMA, the impacts people can have on these resources, and why no new trails will be created within or connecting to the WMA. <p><i>Implementation Actions</i></p> <ul style="list-style-type: none"> • Identify present and future trail users and involve them in a process of avoiding and resolving conflicts as early as possible.

GOAL	OBJECTIVES	RECOMMENDATIONS
		<ul style="list-style-type: none"> • Seek ways for IDFG to become a funding partner of R2R. • Encourage all Foothills land management agencies to conduct user surveys and counts and collaborate in decision making.
	<p>#3 Guide recreational activities and improvements to avoid or minimize impacts on important resource values.</p>	<ul style="list-style-type: none"> • Identify and implement parking areas that are in scale with the amount of use appropriate for that area. Avoid large regional facilities in favor of smaller, dispersed facilities. • Where appropriate, designate pullouts and trailheads for day use activities only, as needed to address fire hazards, “partying,” or other land management issues. • Work collaboratively with developers to provide and protect public access into the Foothills. • Monitor the ongoing effectiveness of programs implemented (e.g., adopt a trail, volunteer rangers, and dogs off-leash). • Coordinate with existing developments to reduce multiple unmanaged access routes into the Foothills. • Ensure land managers communicate to neighborhood and homeowners associations the need to access the trail system from access points and trailheads only. • Use proper planning, design, education, and mitigation measures to minimize the potential negative impacts on wildlife caused by Foothills users. • Guide Foothills users to stay on designated routes. • Redesign/reroute current erosion-prone trails to minimize impacts on resources. <p><i>Implementation Actions</i></p> <ul style="list-style-type: none"> • Develop a <i>R2R Trail Management Plan</i> to assist managers in maintaining existing trails, plan and design new trails/trailheads, guide mixed/separated use, and determine parking and restroom needs. • Create and publicize policies that address special events, over use areas, and organized group trail use. Educate the public about the rule. • Coordinate with the Idaho Outfitters and Guides Licensing Board for those applying for guide licenses in the Foothills.

GOAL	OBJECTIVES	RECOMMENDATIONS
	<p>#4 Develop and implement a trail signage program focused on education, management, trail etiquette, and proper use.</p>	<ul style="list-style-type: none"> • Use signage to educate users of recreational etiquette and guide trail users to appropriate areas. • Survey the effectiveness of interpretive signage and trailhead/kiosk signage. • Create identities for special areas, such as reserves and wildlife management areas, using trailhead and entry signs. • Encourage private landowners to use signage and physical barriers to reduce unmanaged off-road activities on private lands. • Educate users about fire and its effect on the Foothills resources and recreation. • Where possible, provide interpretive (ecological, historical, and cultural) signage to discuss valuable resources in the Foothills. <p><i>Implementation Actions</i></p> <ul style="list-style-type: none"> • Work with partner agencies to develop a commercial use policy in the Foothills.
	<p>#5 Address seasonal closure dates for roads and trails to mitigate potential conflicts at Foothills resources.</p>	<ul style="list-style-type: none"> • Develop and implement seasonal trail closures to minimize trail damage, trailside vegetation loss, and erosion and protect wintering big game. • Develop an outreach strategy to educate the public on seasonal closures. • Enforce seasonal closures when established on Boise WMA to protect wintering wildlife. • Provide signage at closed trailheads to provide trail users with other opportunities. • Implement new ways to alert trail users of daily trail conditions prior to them arriving in the Foothills.
	<p>#6 Address and manage for the presence of dogs in the Foothills.</p>	<ul style="list-style-type: none"> • Review the distribution of dog off-leash, dog on-leash, and no dog trails across the R2R system and consider redistribution. • Expand the number of animal control officers and partner amongst agencies on policy language and enforcement. • Create new ways to educate trail users/dog owners on impacts of off-leash dogs and dog waste left in the Foothills. • Provide education about the importance of dog leash requirements during ground bird nesting season, wintering big game, trapping season, and along riparian corridors.
	<p>#7 Develop and fund a land management program.</p>	<p><i>Implementation Actions</i></p> <ul style="list-style-type: none"> • Establish funding for City of Boise reserve restoration projects, long-term monitoring, and regular management activities and coordinate with other public agencies. • Seek new funding opportunities for Foothills management. • Hire staff to actively manage the natural

GOAL	OBJECTIVES	RECOMMENDATIONS
		<p>resources in City of Boise reserves and work with neighboring landowners on similar resource goals.</p> <ul style="list-style-type: none"> • Work with interested citizens to create a <i>Friends of the Boise Foothills Group</i> to assist with projects not easily accomplished by governmental agencies. • Create a volunteer base to aid in restoration and management activities. • Schedule several restoration-focused volunteer projects annually.
	<p>#8 Develop a monitoring program to regularly evaluate programs, restoration projects, and impacts of recreational activities on natural resource values in the Foothills.</p>	<ul style="list-style-type: none"> • Evaluate current experiences and desired vision of trail users. • Use photographic data (photopoint) to evaluate resource impacts and restoration efforts (such as plantings, noxious weed control, and trail repair). • Create a position for a professional monitoring coordinator to create and oversee a balanced scientific program. • Partner with trail users and other community recreation groups to carry out needed monitoring. • Create a contact list of citizens interested in recreational issues in the Foothills to contact regularly with updates.

[Ongoing recommendations in blue](#)

HUNTING AND TRAPPING RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Manage for safe and sustainable sportsman opportunities (hunting and trapping).	#1 Teach the public about sportsman practices in the Foothills.	<ul style="list-style-type: none"> • Acknowledge hunting and trapping as an activity to be maintained in the Foothills. • Create different methods to educate the public of the type, season, and scope of hunting and trapping opportunities in the Foothills. • Provide links to hunting and trapping information and the range of unit 39, which encompasses portions of the Foothills. • Work with Ada County to improve public safety by restricting discharge of firearms within proximity to residential developments. • Advocate brightly colored clothing by trail users during hunting season for public safety reasons. • Establish contacts with key representatives of hunting and trapping groups using the Foothills.

[Ongoing recommendations in blue](#)

TRANSPORTATION RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Work with managing agencies to ensure that transportation plans complement the 2000 Boise Foothills Management Plan.	#1 Coordinate with the Ada County Highway District (ACHD), BLM, and USFS to reduce erosion from road runoff.	<ul style="list-style-type: none"> • Monitor and repair erosion on damaged roads. • Develop methods for reducing erosion from roads in the Foothills. • Consider redesign of designated roads with ongoing erosion concerns.
	#2 Coordinate with ACHD and COMPASS to develop a final Foothills Transportation Plan.	<ul style="list-style-type: none"> • Work with COMPASS to update the technical data related to the Foothills. • Ensure ACHD shares and maintains roads for the safety and benefit of recreationists. • Ensure transportation planning efforts are coordinated with Foothills land managing agencies and addresses the effects of new and existing roads on wildlife, cultural resources, vegetation, air and water quality, and recreation.
	#3 Minimize noxious weeds found adjacent to roads.	<ul style="list-style-type: none"> • Coordinate with public land managing agencies, ACHD, and the Ada County Department of Weed and Pest to prevent and reduce noxious weeds along established or new roads in the Foothills.

Ongoing recommendations in blue

SOLID WASTE RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Continue to operate and fully develop the landfill to meet municipal solid waste disposal needs of county residents.	#1 Understand that the active areas of the 2,700-acre Ada County Landfill property is exempt from the 2000 Boise Foothills Management Plan.	<ul style="list-style-type: none"> • Encourage the landfill to manage buffer areas for protection of wildlife, rare plant populations, cultural resources, and visual quality. • Partner with the landfill and USFWS to protect rare plant species occurring within landfill buffer areas. • Recognize that human and dog use of buffer area is not compatible with priorities of buffer area; wildlife habitat and plant species of concern. • Coordinate with Ada County to ensure that landfill operations do not negatively impact other public lands managed for conservation purposes.
	#2 Educate the public about solid and hazardous waste management in Ada County.	<ul style="list-style-type: none"> • Encourage more public educational opportunities at the landfill: on-site tours and lessons. • Post interpretive signage of landfill operations at trailheads adjacent to the landfill.

Ongoing recommendations in blue

CULTURAL RESOURCES RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Identify and protect existing cultural sites and educate users about their importance to the history of the area.	#1 Consult with the State Historic Preservation Office (SHPO) early in project planning for any new work projects in the Foothills.	<ul style="list-style-type: none"> • Identify proposed trail, trailhead, and other facilities involving ground disturbance for review by SHPO and tribes. • Coordinate with SHPO before building any proposed roads in the Foothills.
	#2 Teach users about the importance of cultural resources and their protection.	<ul style="list-style-type: none"> • Develop cultural interpretation signs for trailhead kiosks and along trails as appropriate. • Provide public education about cultural resources in the Foothills through programs and lessons at Jim Hall Foothills Learning Center.
	#3 Secure open spaces with known significant cultural resources.	<ul style="list-style-type: none"> • Conduct cultural resource surveys in the Foothills. • Develop a strategy for limiting the probability of vandalism to known cultural resources. • Work with landowners and provide incentives for protecting known cultural sites on their lands.

Ongoing recommendations in blue

GRAZING RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Manage grazing activities to be compatible with established management practices to ensure ecosystem sustainability.	#1 Coordinate with local, state, and federal agencies.	<ul style="list-style-type: none"> • The BLM, USFS, and IDFG are the lead agencies with respect to managing livestock grazing in the Foothills. These agencies should share livestock grazing plans with other agencies in the Foothills on an annual basis. • Adopt grazing techniques and/or programs with proven results.
	#2 Manage grazing activities to be compatible with natural resources.	<ul style="list-style-type: none"> • Manage sagebrush steppes, riparian habitats, and other sensitive landscapes to prevent degradation from grazing. • Work with agency managers and grazing lessees to use practices that limit soil-disturbing practices. • Use erosion-control guidelines and techniques to stabilize soils disturbed by grazing. • Manage for improvement of native plant communities. • Work with volunteers and among land management agencies to plant native plant species in areas disturbed by grazing, specifically riparian corridors. • Incorporate the life cycle key plant species important to wildlife into livestock grazing management.
	#3 Use grazing in a targeted manner to reduce noxious weeds, improve wildlife habitat, and reduce fuels.	<ul style="list-style-type: none"> • Set up a pilot project in the Foothills where targeted sheep grazing could be used to reduce noxious weed populations. • Monitor the pilot project with photographs and data to be used for future grazing management decisions. • Create list of BMPs for different types of targeted environmental management-oriented grazing in the Foothills. • Use grazing to reduce fuel loads in and around “anchor points” in the Foothills. These anchor points would be identified by the BLM fire managers.
	#4 Teach Foothills user groups about grazing-related issues.	<ul style="list-style-type: none"> • Involve the Idaho Rangeland Resource Commission in discussions involving rangeland and grazing education. • Create an environmental education lesson on Foothills grazing. • Create and install grazing interpretive signs. • Post information on the R2R website and at trailheads about current grazing activity in the Foothills.

Ongoing recommendations in blue

VISUAL RESOURCES RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Retain, preserve, and enhance the natural scenic values of the Foothills.	#1 Protect unique and highly valued visual resources.	<ul style="list-style-type: none"> • Identify scars altering the scenic value of the Foothills. • Coordinate restoration and clean-up efforts working with a lead agency, volunteers, and/or private landowners to restore or maintain scenic values. • Work with enforcement agencies to deter illegal activity. • Incorporate visual resource interpretation into signage.
	#2 Monitor chosen viewpoints from the 2000 Boise Foothills Management Plan.	<ul style="list-style-type: none"> • Revisit chosen viewpoints for photographic data every two years to determine restoration needs and encourage agencies to make management changes in problem areas.
	#3 Coordinate with utility companies to reduce visual intrusions on the landscape.	<ul style="list-style-type: none"> • Coordinate with utility companies to mitigate resource damage associated with construction, placement, and maintenance of utilities. • Require regrading and reseeded of temporary utility access roads to reduce visual and other environmental impacts.
	#4 Coordinate with road managing agencies when maintaining existing or planning new roads in the Foothills. Use mitigation techniques to reduce the visual contrast created.	<ul style="list-style-type: none"> • Discourage and/or reduce the visual impacts of new development in highly visible areas, such as ridgelines. • Identify roads to be modified or realigned to reduce their visual impact on the landscape and improve their sustainability. • Coordinate with road maintaining agencies to reduce fugitive dust contributing to visual air pollution in the Foothills.

Ongoing recommendations in blue

2-3 2013 UPDATE GOALS, OBJECTIVES, AND RECOMMENDATIONS MANAGEMENT AND MAINTENANCE IN THE BOISE FOOTHILLS: GOALS, OBJECTIVES, AND RECOMMENDATIONS

This section of the plan focuses on management and maintenance of both the resources and uses of the Foothills. Funding, cooperation, and consistency in planning efforts are key to the success of this 2014 Plan. Therefore, the recommendations presented in this section focus on the groundwork that is involved in maintaining the Foothills as a safe public space. Five key management goals are identified in this section:

- Develop funding proposals to supplement limited resources for programs and projects recommended by this 2014 Plan.
- Enhance the public involvement process and environmental education programs.
- Preserve existing public lands and create connectivity between these properties.
- Acquire additional open space as appropriate to agency mission and function.
- Ensure public safety and wildfire concerns are met through cost-effective and coordinated efforts in the Foothills.

DEVELOP FUNDING PROPOSALS RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Develop funding proposals to supplement limited resources for programs and projects recommended by this 2014 Plan.	#1 Provide staffing and funding to support activities and programs.	<ul style="list-style-type: none"> • Seek funding for staff and support activities through cost-saving supplemental funding programs and projects. • Seek new partnerships and new relationships with current and possible future open space supporters; work to expand the base of supporters for open space goals.
	#2 Develop a cost-effective plan to fund maintenance and development of lands, trails, and facilities provided for public use.	<ul style="list-style-type: none"> • Create a 10-year Capital Improvement Plan for the Foothills and research potential new impact fees. • Encourage the creation of a fund or trust managed by the Friends of the Foothills and the Idaho Community Foundation.

Ongoing recommendations in blue

ENHANCE THE PUBLIC INVOLVEMENT AND EDUCATION PROCESS RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
<p>Establish a public involvement and education process.</p>	<p>#1 Provide public information and outreach, for education and to encourage active support for plan implementation and volunteer programs.</p>	<ul style="list-style-type: none"> • Continue public education programs about the importance of the Foothills, the benefits the Foothills bring to the community, and the need for protection and restoration of open space, environmental challenges, responsible stewardship, and citizen involvement in addressing these issues. • Promote volunteers to actively engage in the implementation of the Open Space Plan; create new and more enticing strategies to enlist volunteers in trail maintenance and other stewardship activities. • Involve neighboring communities in public forums to discuss management decisions affecting the use of the Foothills to promote consistency in planning efforts, educational opportunities, and public awareness. • Work with the business community to actively engage in the implementation of the Open Space Plan; in particular, seek out business partners with a strong stake in the future of the Foothills such as the Chamber of Commerce and outdoor gear business. • Continue to evaluate, develop, and update lesson plans for public and private schools that incorporate the concepts of this 2014 Plan. • Continue to work with environmental education groups to use public open space areas for environmental instruction. • Enhance year-round education programs for the Foothills. • Establish partnerships with public and private landholders, community land trusts, conservation organizations, user groups and organizations, and “friends” groups throughout the region.
	<p>#2 Provide a one-stop location for information on Foothills natural history, recreational opportunities, upcoming events and programs, and volunteer programs.</p>	<ul style="list-style-type: none"> • Use the Jim Hall Foothills Learning Center to house open space operations, enforcement personnel, environmental educators, maintenance staff, and natural resource specialists. This site will: <ul style="list-style-type: none"> ▪ Serve as the information center for the Foothills where maps, electronic files, and other information could be stored, updated, and disseminated. ▪ Serve as an education facility to provide education and environmental awareness programs and demonstration projects about such topics as Firewise and Xeriscape

GOAL	OBJECTIVES	RECOMMENDATIONS
		<p>landscaping.</p> <ul style="list-style-type: none"> ▪ Provide a location for reporting criminal activity, ecological observations, trail-related issues, maintenance issues, and other concerns. • Create new online and social media platforms to share information with the public, both residents and prospective visitors.
	<p>#3 Establish an interpretive program focused on creating resource awareness.</p>	<ul style="list-style-type: none"> • Identify social trends and how they relate to natural resource management. • Develop programs to address social trends. • Develop a series of themes for specific purposes, such as at Table Rock or on trail loops. Examples of themes that could be addressed using interpretive signage or other tools include: <ul style="list-style-type: none"> ▪ Table Rock ▪ Military Reserve ▪ Boise River WMA ▪ Castle Rock ▪ Shoshone tribes ▪ Overland Stage Services ▪ Rocky Canyon Toll Road ▪ Unexploded ordinance ▪ Boise Fires of 1959 and 1996 ▪ Fire rehabilitation ▪ Poisonous plants ▪ Noxious and invasive plants ▪ Wildlife in the Foothills ▪ Trailing sheep ▪ Urban interface ▪ Geothermal resources ▪ Watershed
	<p>#4 Increase coordination and administration efforts among agencies for public involvement and education.</p>	<ul style="list-style-type: none"> • Organize annual meeting among public agencies, representatives, and partners to heighten awareness of public involvement and education efforts. • Schedule annual open house to highlight accomplishments, upcoming projects and management issues, and opportunities for future public involvement.

Ongoing recommendations in blue

PRESERVE EXISTING PUBLIC LANDS AS PUBLIC OPEN SPACE RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Preserve existing public lands and create connectivity between these properties.	#1 Facilitate the transfer of ownership from state lands to other public agencies to preserve open space.	<ul style="list-style-type: none"> • Create a prioritized list of IDL parcels with ranked resource values and uses for potential sale or exchange. • Work with other public land agencies to identify possible receiving agencies for IDL parcels. • Initiate further group discussion with public land agencies on future land ownership scenarios to meet this objective.
	#2 Provide resources as necessary to expedite the land transfer process.	<ul style="list-style-type: none"> • Identify specific resources to be allocated to facilitate land transfer of IDL parcels including planning, funding, staffing, and mediation. • Educate and build partnerships with local non-governmental organizations, interest groups and citizens to create momentum to conserve IDL parcels as public open space.
	#3 Institute additional measures to ensure public open spaces are preserved for future generations as public open spaces.	<ul style="list-style-type: none"> • Encourage City of Boise leadership to take steps to have third-party conservation easements on all properties where Foothills Levy Funds have been used for long-term open space conservation. • Pursue third-party conservation easements on all City of Boise-owned properties in the Foothills.
	#4 Acquire public access to existing public open space parcels where compatible with other resource values.	<ul style="list-style-type: none"> • Work with private landowners to acquire access easements for recreational connectivity.

[Ongoing recommendations in blue](#)

ACQUIRE ADDITIONAL OPEN SPACE AS APPROPRIATE TO AGENCY MISSION AND FUNCTION RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Acquire additional open space as appropriate to agency mission and function.	#1 Establish a permanent Foothills Council consisting of public and citizen representatives.	<ul style="list-style-type: none"> • Use established agency practices and the goals and objectives of this 2014 Plan to clarify criteria for decisions on land acquisitions, exchanges, easements, and other actions that could modify or expand the Foothills public land base. Considerations in such decisions include impacts on goals for conservation, recreation and other uses, fiscal health, and changes in service requirements; a particular consideration is features that cross lands under multiple ownership such as drainage, trail, and wildlife corridors. • Educate the public about the mixed ownership (public and private) across the Foothills.

Ongoing recommendations in blue

ENSURE PUBLIC SAFETY AND WILDFIRE CONCERNS ARE MET RECOMMENDATIONS

GOAL	OBJECTIVES	RECOMMENDATIONS
Ensure public safety and wildfire concerns are met through cost-effective and coordinated efforts in the Foothills.	#1 Have emergency management services continue mutual-aid efforts to protect public safety through shared resources to enforce laws and manage wildfire concerns.	<ul style="list-style-type: none"> • Urge agencies to continue to support and fund cooperative agreements for fire protection and law enforcement. • Encourage cooperation among local governments and fire protection districts as they evaluate the costs and benefits of acquiring specialized fire suppression equipment and funding supplemental staff during the peak fire season.
	#2 Continue to improve interagency coordination, cooperation, and communication to advance public safety and wildfire concerns.	<ul style="list-style-type: none"> • Encourage public agencies to communicate regularly with public safety and law enforcement representatives and medical personnel serving the Foothills. • Provide assistance with emergency response needs and communications as needed, such as gate keys, staging areas, and special trail equipment. • Stay engaged with U.S. Army Corp of Engineers on mapping, detection, education, and mitigation of unexploded ordinances in the Foothills. • Consider use of trails as potential locations for firebreaks when needed. • Encourage agencies to work collectively when seeking funds for wildfire mitigation projects within the Foothills. • Update the 2012 Wildfire Mitigation Memorandum of Understanding (MOU) every five years and meet semiannually with MOU signatories to prioritize project ideas and discuss funding options.
	#3 Educate the community about public safety and wildfire concerns.	<ul style="list-style-type: none"> • Encourage homeowners within the Wildland Urban Interface to create defensible space. • Provide resources to encourage neighborhoods to become Firewise communities. • Create and post signage educating Foothills users about wildfire concerns and the wildfire role in the Foothills environment. • Provide nonemergency contact information (police, fire, agencies, and R2R) at designated R2R trailheads and in a variety of media formats.

Ongoing recommendations in blue

3. BACKGROUND—ENVIRONMENT

3-1 WATER RESOURCES IN THE BOISE FOOTHILLS

The Boise Foothills and the water resources they support are an important part of the Lower Boise River watershed. The stream and gulches of the Foothills function as paths for transporting precipitation that falls in the higher elevations down to the Boise River and the valley's aquifers, the primary sources of drinking water for Boise residents. Ground water and surface water flows provide a critical water supply to the area's wildlife and maintain riparian and wetland habitat communities. New information now demonstrates the hydrologic connection between the Foothills and the surrounding aquifers.

Maintaining the subwatersheds of the Foothills in their proper functioning condition is critical to the health of the larger watershed. Not only does the Foothills watershed contribute to Boise's drinking water supply and wildlife survival, but if its natural functions are maintained, it also protects the area from catastrophic flooding. However, these functions can be impaired by major events that alter the landscape as well as by the cumulative impacts of ongoing human activities. Reducing the extent of surface-disturbing activities that reduce the watershed's ability to effectively absorb precipitation can help reduce risks of major flooding.

WATER RESOURCES IN THE BOISE FOOTHILLS

WATERSHEDS

A watershed is defined as the land surrounding a common set of streams and rivers that drain into a single larger body of water. The Foothills are an important part of the Lower Boise River watershed and recharge the shallow and deep aquifers as well as the Boise River. The Foothills watershed comprises primarily of ephemeral and intermittent streams with a few larger perennial streams, such as Dry Creek and Cottonwood Creek, that support minor irrigation diversions and healthy riparian zones. Isolated springs recharge some stream channels, providing an important source of surface water to wildlife. Most of the Foothills streams enter engineered structures at the base of the Foothills where they are routed beneath the city to the Boise River. Temperature and precipitation vary across the watershed, but generally precipitation increases with the elevation - from less than 12 inches per year on the valley floor to 20 inches per year at the Boise Ridge - while daily temperatures decrease with elevation (Boise Planning and Community Development Department 1994).



Watersheds have three basic landform components: ridges, hillslopes, and drainage channels. These landforms could be used to divide the Foothills watershed into smaller subwatersheds based on how water moves across the surface of the land. [Table 3](#), taken from the 1994 *Foothills Plan*

3. BACKGROUND ENVIRONMENT

Background Report, describes the general size and elevation gain of these subwatersheds, and [Figure 2](#) shows their locations. The proper functioning of each subwatershed is important to the overall health of the larger watershed. A healthy watershed absorbs runoff from precipitation, and this absorption reduces flood potential and stores water throughout the year to support base streamflows and provide the water critical to many plant and animal species. These watershed functions can be changed or impaired by major events or the cumulative effects of less dramatic events such as road and trail construction, urban runoff, gully and rill erosion, overgrazing by livestock, and the gradual loss of the native vegetative cover. To maintain the health of each subwatershed and of the larger watershed, cumulative impacts of existing and proposed land uses must be considered.

TABLE 3 AVERAGE SIZE AND LENGTH OF FOOTHILLS GULCHES GEOGRAPHICALLY FROM WEST TO EAST

Subwatersheds	Size (acres)	Center Line Length (miles)	Elevation Gain (feet)
Valley Creek	1,585	1.5	515
Dry Creek Valley	20,096	14.4	4,040
Daniels Creek	3,950	4.9	2,800
Goose Creek	984	1.3	610
Eagle	1,167	1.4	610
Seaman Gulch	1,311	2.7	650
Pierce Gulch	1,960	2.9	960
Polecat Gulch	916	2.0	920
Stewart Gulch	6,034	7.6	3,310
Crane Creek	5,502	6.9	3,230
Hulls Gulch	3,011	6.3	3,120
Freestone Creek	3,307	4.5	2,830
Cottonwood Creek	7,990	6.6	2,880
Table Rock Area	2,018	1.4	930
Warm Springs Gulch	3,646	4.9	2,740
Squaw Creek	1,978	3.0	2,410
Maynard Gulch	1,545	3.6	2,690
Section 27	390	1.4	1,190
Highland Bench	1,860	3.3	3,160
Diversion Dam	1,688	1.7	1,420
Lucky Peak Reservoir	10,265	5.8	1,900

GROUND WATER AND AQUIFERS

The presence and movement of ground water in the Foothills depends on the surficial geology. Ground water depths vary considerably across the Foothills, depending on the physical characteristics of an area and location within the watershed (Boise Planning and Community Development Department 1994). Several of the gulches (Crane Creek, Hulls Gulch, Freestone Creek, and Cottonwood Creek) are recharge areas for shallow aquifers that ultimately connect to the Boise River and to deeper aquifers that ultimately connect to the Boise River and to deeper aquifers (Squires, pers. comm. 2000). The gulches are paths for surface and subsurface water moving downslope from the ridgetops to the Boise River. Therefore, contaminants entering the gulches could be transported via ground water to areas, such as deep aquifers, not commonly associated

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with the pollution source. This movement can take many years since ground water flow is often very slow as it moves toward the deep aquifers.

The ground water provides a base flow to many drainages and supports springs, seeps, and wetlands. These areas provide water sources and riparian habitat critical to wildlife populations in the Foothills. To maintain the wildlife and overall health of the Foothills ecosystem, the watershed must be able to absorb precipitation and produce ground water flows that can sustain these areas during the dry summer months. Activities that create impervious surfaces or increase surface runoff should be carefully evaluated for their impacts on the recharge areas and ground water supply.

Sedimentary and volcanic aquifers are found throughout the Boise Foothills. These aquifers contain a mixture of loose gravels, sands, silts, and clays that comprise valley fill aquifers intermixed with areas containing basalt, shale, and sandstone rocks that have a more consistent structure. Various types of aquifers are located throughout the Foothills and in and around the Boise River including confined and unconfined, fractured, sedimentary, and perched. An aquifer is a natural underground area where large quantities of ground water fill the spaces between rocks and sediment. In an aquifer, ground water can move sideways, up, or down in response to gravity, differences in elevation, difference in pressure, and differences in the physical properties of the aquifer. Depending on the aquifer, the water can move from very fast (as much as hundreds of feet per day in fractured rock aquifers) to very slow (as little as a few feet per year in very fine-grained sedimentary aquifers) (Idaho Department of Environmental Quality 2014).

The State of Idaho has embarked upon a planning process known as the Comprehensive Aquifer Management Plan (CAMP). One of the anticipated drivers of future needs and supply constraints for water in the eastern Treasure Valley is to provide additional storage capacity to mitigate the effects of altered patterns of runoff from mountain snow packs in and around the Foothills.

The Aquifer Planning and Management Program is designed to provide the Idaho Water Resource Board and IDWR with the necessary information to develop plans for managing ground and surface water resources into the future. The program has two phases:

1. A technical component to characterize the surface and ground water resources of each basin.
2. A planning component that will integrate the technical knowledge with an assessment of current and projected future water uses and constraints.

DRINKING WATER

The Foothills watershed contributes to the two primary sources of drinking water for Boise residents: the Boise River and the Boise Valley's deep aquifers. Precipitation falling on the Foothills watershed travels down the Foothills gulches as surface and subsurface flow and ultimately reaches either the Boise River or the deep aquifers. The drainage basins in the southeastern portion of the planning area contribute water to the Boise River above the intake for the water purification plant at the end of Marden Lane in east Boise. The hydrologic connection between the Foothills

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watershed and this deep aquifer, which is tapped for most of Boise's drinking water, is still being studied.

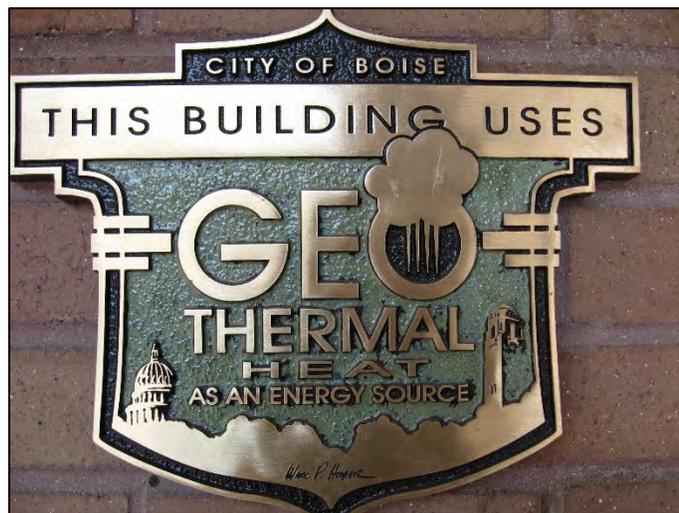
United Water and the Idaho Department of Environmental Quality (DEQ) are developing source water programs for protecting drinking water wells under the reauthorization of the Safe Drinking Water Act. Any additional information on the role of the Foothills watershed in Boise's drinking water supply will be incorporated into this report as it becomes available.

WATER QUALITY

The water quality of Foothills streams is not regularly monitored (Finch, pers. comm. 1999). In 1998, Cottonwood Creek, from its headwaters to its confluence with Freestone Creek, was added to the list of streams and rivers that do not meet state water quality standards. These assessments are based on a rapid screening protocol conducted by the DEQ. It could be several years before further studies can determine the causes of impaired water quality (Horsburgh, pers. comm. 1999). The Total Maximum Daily Load for the stream segment is not scheduled for completion until 2006.

GEOHERMAL WATER

The geothermal aquifer is a fractured media ground water system that produces hot artesian water from the network fractures of the Boise Frontal fault system and the fractured, layered rhyolites and interbedded sediments of the Idavada Group, and from fracture zones within the Idaho batholith. Prior to 1982-1983, the system appeared to have been at or near equilibrium. However, increases in production since that time have resulted in a general decline in recovery levels, and a pattern indicating interconnection between the Capitol Mall-Reserve Park (below ground level) portion of the aquifer system and the Warm Springs portion is emerging (IDWR 1987).



This geothermal deep aquifer found in the Boise Valley produces water that ranges from 106°F to 175°F. This aquifer is more than 1,000 feet deep and is partially fed by water seeping through deep faults in the Foothills. The geothermal water is used for heating residential and government buildings (Boise Planning and Community Development Department 1994).

FLOODING

The Foothills could flood at any time throughout the year, despite the ephemeral nature of many of the streams. Intense summer storms can cause flash flooding in the gulches, a situation that can be aggravated by the loss of vegetative cover or a decrease in soil permeability within a subwatershed. Flooding from rain or snow events can also occur, but such flooding is less frequent and of less magnitude. Floodplains for some Foothills gulches were designated for Federal Emergency Management Flood Insurance Maps dated December 1991. These 100-year flood maps have not been updated (Hortness, pers. comm. 1999). [Figure 2](#) shows the location of these designated flood hazard areas.



Healthy watersheds are generally in equilibrium with prevailing weather patterns and can absorb precipitation from low- to moderate-intensity storm events. Flood probabilities have been developed based on watershed conditions and the amount and intensity of precipitation. The possibility of flooding could increase with a decrease in the proper functioning of the watershed. For example, the 1996 fire outside Boise dramatically changed watershed conditions by removing the vegetative cover and, in some areas of high burn intensity, reducing the permeability of the soil. Under normal circumstances, precipitation is intercepted by vegetation and absorbed by the soil, reducing and slowing water flow on the surface of the ground. Vegetation losses and reduced soil permeability has increased surface runoff, erosion, and the likelihood of flooding in the affected watersheds.

In 1959, a Foothills wildfire was followed by what is estimated as a 50- to 100-year storm event. The severity of the flood was magnified because the fire had limited the absorption capability of the soil. North and east Boise neighborhoods and the downtown were inundated by mud flowing from Foothills gulches (Interagency Fire Team 1996).

Following the 1996 fire, revegetation and nonstructural techniques were used to repair some of the watershed damage. In addition, structures were built to reduce flooding potential. Flood-control dams and detention basins were constructed in Stewart Gulch, Crane Creek, and Hulls Gulch. The existing flood-control ponds on Cottonwood Creek were modified, and a flood-overflow channel was created in Fort Boise Park (Stuebner, pers. comm. 1998).

Other Foothills sediment basins are maintained by Boise Public Works in neighborhoods bordering the Foothills, including lower Stewart Gulch near Hillside Junior High School, lower Crane Creek near Bogus Basin and Hill Roads, lower Hulls Gulch, and Foothills East. A homeowners' association maintains a sediment basin on Crane Creek near the Crane Creek Golf Course (Boise City Public Works, 1999). All of the sediment basins have required increased maintenance and cleaning since the Foothills fire. Damage to the watershed above the City has long-term impacts on flooding potential, sediment movement, and water quality for residents of Boise.

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Fire is just one of the watershed changes that could increase flooding. Any activities that remove vegetation and expose bare soil reduce the proper functioning condition of the watershed and leaves it vulnerable to increased surface runoff, sedimentation downstream, and the potential for flooding. Impervious surfaces created by development, paving, or extreme soil compaction from recreational use also reduce a watershed's ability to absorb precipitation and increase surface runoff and flood potential. Cut-and-fill slopes associated with the construction of building sites, roads, and trails increase flood potential because they remove vegetative cover and change the natural contours of the watershed. These changes alter the surface and subsurface flow patterns.



THREATS TO WATER RESOURCES

Surface and ground water resources are at risk from numerous human activities in the Foothills, which could affect the quantity and quality of the water resources.

- Contamination—Many potential sources of contamination (septic systems, pesticides and herbicides, petroleum, fecal material, and sediment from increased erosion) exist. Gulches could conduct such contamination to ground water and the Boise River, which are both used for drinking water.
- Construction in the Foothills—In addition to increasing potential contamination, residential construction introduces impervious surfaces, which increase the rate and concentration of runoff and could cover recharge areas. Development could change the gradient of slopes and expose bare soil, which would further increase erosion and sedimentation.
- Fire—Catastrophic wildfire damages vegetation, impairs the soils' ability to absorb water, and increases erosion.
- Overgrazing—Livestock trampling of streambanks and riparian areas changes stream channels by downcutting the banks and increasing erosion. Fecal matter also contaminates streams.
- Roads and Trails—Construction of roads and trails could impair watershed functions because it creates cut-and-fill slopes and impervious surfaces that change runoff patterns.

EXISTING MANAGEMENT POLICIES FOR WATER RESOURCES

Land management agencies work to protect and enhance water resources within the Boise Foothills. The Agency Resource Working Group used existing agency policies to develop objectives and recommendations for this 2014 Plan (see Goals, Objectives, and Recommendations). Similarities and differences among agency policies are described in this section across four topic areas: ground water protection, floodways, surface water, and standing water. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land.

Instead, the recommendations offer an overarching direction for approaching management of water resources in the Foothills as a whole. [Tables 4, 5, and 6 at the end of the chapter lists the agency policy statements related to water resources.](#)

GROUND WATER PROTECTION

State water quality standards are used as a baseline by all agencies except Ada and Boise counties. Ada County requires that any planned community application be accompanied by a plan that includes goals, policies, and development standards and administration information. In these cases, Boise and Ada counties require developers to provide descriptions of impacts on the environment, including impacts on ground water quality.

All agencies have established policies addressing ground water pollution and strive to maintain high standards for ground and surface water. Ada County specifically addresses the solid waste disposal facility in the project area and also requires independent studies for subsurface sewage disposal with separate studies for each development.

City and county agencies have specific ground water policies for development on private lands. To protect water quality, the IDL and the IDFG have policies requiring direct coordination with private property owners. The Agency Working Group supports efforts to maintain and enhance Foothills ground water resources to ensure that those resources are not degraded in the future.

FLOODWAYS

Generally, all agencies require the floodways to be protected for the maintenance of their proper function. Each agency except Boise County requires that any resources within floodways be restored after they have been altered through natural events or human activity, such as floods and fires. Ada County requires that any planned community application be accompanied by a plan that includes goals, policies, and development standards and administration information. The developer must provide a description of impacts on the environment, including impacts on the floodway and appropriate mitigation measures.

To protect resources, public safety, and water quality, Boise City and Ada and Boise counties prohibit all structural development within the floodway. Boise City and Ada County specifically require floodways to remain as open space or parks.

Boise City, Ada and Boise counties, and IDL require coordination with other agencies and private landowners to ensure that water resources are considered in planning activities.

SURFACE WATER

Idaho Department of Water Resources and the Department of Environmental Quality manage surface water issues. All agencies require direct coordination with private and public landowners to effectively manage and protect surface water. Each agency provides specific policies and uses best management practices to protect water quality and restore beneficial uses. Beneficial use for the purposes of this 2014 Plan include factors such as coldwater aquatic life and primary and

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secondary contact recreation. (See State Code; Water Quality Standards 58.01.02.010.08 Beneficial Use.)

STANDING WATER

None of the agencies identified have specific policies to address standing water. Boise City has identified standing water in its *8th Street Fire Addendum to the Reserves Master Plan* (EDAW et al. 1996) and made recommendations and design guidelines for flood and detention basins. Specifically, the plan addresses the Hulls Gulch/Camel's Back Reserve and the Military Reserve. Techniques include education, roadside barriers, signs, firebreaks, and zoning codes. Refer to the *Reserves Master Plan* (EDAW et al. 1996) for more information.

REFERENCES

POLICY DOCUMENTS

Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.

Boise City Public Works. 1999.

EDAW, CH2M Hill, Jensen-Belts Associates, Zabala Giltzow Albanese Architects. July 18, 1996. Reserves Master Plan (Hulls Gulch/Camel's Back Reserves).

Interagency Fire Team. 1996. Interagency Fire Rehabilitation Report. 43 pp. September.

Stuebner, Stephen. 1998. Wildfire in Boise Foothills Spurs Flurry of Flood-control Projects in Four Gulches. Pacific Builder & Engineer. January 19.

U.S. Department of Agriculture, Forest Service. 2010. Boise National Forest Land and Resource Management Plan.

Waag, C.J. 1987. Evaluation of the Boise Geothermal System. Idaho Department of Water Resources, Boise, ID. December.

INTERVIEWS AND OTHER SOURCES

Finch, Robbin. 1999. Boise City Public Works, Environment Department. Personal communication. December.

Horsburgh, Brian. 1999. Senior Water Quality Analyst, Idaho Division of Environmental Quality. Personal communication. December.

Hortness, John. 1999. U.S. Geological Survey. Personal communication. December.

Idaho Department of Environmental Quality. 2014. Aquifers. Available at: <<https://www.deq.idaho.gov/water-quality/ground-water/aquifers.aspx>>. Last accessed: September 25, 2014.

Squires, Ed. 2000. Hydro Logic Inc. Personal communication. January.

Weston, Cheyne. 2012. Personal communication with Catherine Chertudi, City of Boise Environmental Program Manager, regarding geothermal aquifers in the Foothills Management Planning Area. June 27.

Weston, Cheyne. 2012. Personal communication with Sean Vincent, Hydrology Section Manager, IDWR. July 5.

3. BACKGROUND ENVIRONMENT

Weston, Cheyenne. 2012. Personal communication with Ed Hahen, Water Quality Manager, DEQ. July 5.

Weston, Cheyenne. 2012. Personal communication with Marti Bridges. Stream and Lake Water Quality regarding beneficial uses in the Boise Foothills. July 9.

EXISTING MANAGEMENT POLICY SUMMARY TABLES

TABLE 4 GROUND WATER

Agency policy statements about ground water in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS

TABLE 5 FLOODWAYS

Agency policy statements about ground water in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS

TABLE 6 SURFACE WATER

Agency policy statements about surface water in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS

3-2 SOILS AND GEOLOGY IN THE BOISE FOOTHILLS

The Boise Foothills soils are found on predominately rolling to very steep hills. These hills grade to steep and very steep mountains in the northeastern portion of the Foothills. The major drainage in this area is Dry Creek, which originates near Little Deer Point. Numerous smaller streams run south or southwest through the canyons and gulches at regular intervals across the area. The soils of the Foothills can be separated into three major groups: granitic, lacustrine (lakebed), and fluvial soils. The Soil Survey of the Boise Front Project, Idaho, provides the most recent field data and should be the reference for soil maps, soil classifications, and land interpretation. The combination of steep slopes and highly erosive soils in the Foothills makes the area extremely sensitive to rill and gully erosion. Vegetative cover and organic matter in the soil are major factors in reducing erosion potential. Several areas of the Foothills are also susceptible to landslides and slope failures.

A few outcrops of hard rock are found within the project area. These rock outcrops provide scenic value and unique wildlife habitat. Several faults also underlie the Foothills. Hazards from slope failures triggered by earthquakes should be considered a potential problem in the Foothills.

SOILS AND GEOLOGY IN THE BOISE FOOTHILLS

SETTING

The Boise Foothills soils are found on predominately rolling to very steep hills. These hills grade to steep and very steep mountains in the northeastern portion of the Foothills. Gently rolling to hilly fan remnants, structural benches, butte summits, and landslides comprise the central and southeastern portions of the foothills. Draw bottoms, alluvial fans, and gently to moderately sloping stream terraces adjoin drainages at lower elevations (Harkness 1997)

The major drainage in this area is Dry Creek, which originates near Little Deer Point. Numerous smaller streams run mainly south or southwest through the canyons and gulches at regular interval across the area. These streams include Cottonwood Creek, Crane Creek, Currant Creek, Daniels Creek, Hulls Gulch, Stuart Creek, and Warm Springs Creek (Harkness 1997).

GENERAL SOILS

The soils of the Foothills can be separated into three major groups: granitic, lacustrine, (lakebed), and fluvial soils. These soils are moderately deep (20 to 40 inches [50.8 to 101.6 centimeters]) to very deep (more than 60 inches [1.5 meters]) although the soils on southern slopes are generally low in organic content and easily erode (Harkness, pers. comm. 2000).



Granitic Soils

Granitic soils occur at the middle to highest elevations (3,000 to 6,500 feet) of the Foothills. The soils, found on sloping to very steep hillsides, are well drained and moderately deep to very deep. Granitic soils are generally formed from the Cretaceous granitic rocks of the Idaho Batholith (see Figure 4). The surface textures for lower (3,000 to 5,700 feet) granitic soils include gravelly and nongravelly, loamy coarse sand and sandy loams. Surface textures for upper granitic soils (5,700 to 6,500 feet) are gravelly sandy loam and gravelly loams. The primary uses of mountain soils include rangeland, woodland, wildlife habitat and recreation (Collett 1980; Harkness 1997; Interagency Fire Team 1996).

Lacustrine Soils

Lacustrine soils occur at the lower to middle elevations (2,800 to 3,400 feet) and are generally described as nearly level to very steep. These soils are very deep and well drained to excessively drained and are generally formed from deposits of sand or silt (see Figure 4). The surface textures are sandy loams, loams, and silt loams. The primary uses of these soils are rangeland, wildlife habitat, and recreation. A few areas with less slope are cultivated (Collett 1980; Harkness 1997; Interagency Fire Team 1996).



The hills in these areas are sometimes capped with arkosic sandstone, lava flows, or fan remnants made of late Pliocene volcanoclastic sediments (see Figure 4). These landforms are associated with landslides and slips (Harkness 1997).

Fluvial Soils

The soils in this group occur at the lowest elevations in the Foothills (below 2,700 feet) on nearly level to sloping alluvial fans, drainageways, draws, and stream terraces. These soils are very deep and somewhat poorly drained or well drained. The surface textures range from silt loam to gravelly sand. The parent material for these soils is recent alluvium from weathered granite and mixed sediments (see Figure 4). The primary uses for these soils are farming, urban development, and recreation (Collett 1980; Harkness 1997).

SOIL CLASSIFICATIONS

The soils in the Foothills are diverse and development depends on factors such as parent materials, elevation, slope, aspect, location, climate, vegetation, and time in place. The Soil Survey of Ada County Area, Idaho (Collett 1980) and Soil Survey of Boise Front Project, Idaho (Harkness 1997) provide detailed analysis of these soils. These surveys include data on soil types, mapping units, conditions, and suitabilities for different land and engineering uses. The Soil Survey of the

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Boise Front Project, Idaho (Harkness 1997) provides the most recent field data and should be the reference for soil maps, soil classifications, and interpretations.

EROSION

The combination of steep slopes, sparse vegetative cover on south-facing slopes, and highly erosive granitic and sedimentary soils in the Foothills makes the area highly susceptible to erosion. As a result, any disturbance of vegetation and soil surface leads to rill and gully erosion, which is now evident in the Foothills. Erosion can quickly advance a small rill to a large gully with a heavy climatic event. This type of erosion reduces soil stability, watershed function and values, and ground water recharge potential, and impacts riparian vegetation. Scars from severe erosion can also reduce the attractiveness of the area as a scenic backdrop for viewers from the Boise vicinity and can reduce the quality of recreational activities (often by degrading trails).



Surface-disturbing activities including unrestricted motorized and nonmotorized vehicle use, unauthorized trails, road construction and maintenance, mineral extraction, certain rights-of-way, overgrazing, fire occurrence, and suppression activities can lead to undesirable vegetative changes and erosion.

No comprehensive documentation of erosion sites in the Foothills exists. Such information is needed to identify areas that need rehabilitation, to prevent further erosion damage, and to provide information that could be used to plan erosion-control areas. In many cases, unauthorized trails, overgrazing, and off-road vehicle use leaves soils exposed to erosion and invasion by noxious weeds (see also Recreation and Grazing chapters).

SLOPE

Slope is a major factor in determining erosion potential in the Foothills. As slope increases, so does erosion potential and other environmental concerns related to erosion. Disturbance to the soil surface or vegetation increases erosion potential, especially on steeper slopes. The slope classification units and potential for erosion are discussed below (see also [Figure 3](#)):

- Slopes of 0 to 8% have fairly low erosion potential. The mapped distribution of this slope unit in the Foothills indicates that flatter areas mostly occur in gulches and on foot slopes and benches (Boise City Community Planning and Development Department 1994; Harkness, pers. comm. 2000).
- Slopes of 8 to 15% are more susceptible to moderate erosion. The mapped distribution of this slope unit in the Foothills indicates that these slopes mostly occur on broad hill

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summits (Boise City Planning and Development Department 1994; Harkness, pers. comm. 2000).

- Slopes of 16 to 25% are widely distributed across the Foothills. These areas are susceptible to erosion. Any soil disturbance in these areas requires grading, drainage, and erosion control. The resulting cuts and fills increase the potential for environmental problems (Boise City Community Planning and Development Department 1994).
- Slopes greater than 25% are considered highly erosive (Interagency Fire Team 1996). A slope angle of 14 degrees (slope grade of 25%) or greater appears to be the critical slope on which landslides can occur in the Foothills (Boise Community Planning and Development Department 1994).

A Foothills map is presented in [Figure 3](#) showing slope classification units: 0 to 8%, 8 to 15%, 15 to 25%, and greater than 25%. [Table 7](#) provides a breakdown of Foothills acreage by slope, total area per unit, and percentage of total area.

TABLE 7 SLOPE CLASSIFICATION BY ACREAGE AND PERCENT OF TOTAL AREA

Percent Slope	Erosion Potential Based on Slope	Total Acres	Percentage of Total Area
0 to 8	Fairly low	6,045.0	7
8 to 15	Susceptible to moderate erosion	11,731.0	14
15 to 25	Susceptible to erosion	24,150.3	30
Greater than 25	Highly erosive	38,541.0	48

Based on the data presented in Table 1, high percentages of area in the Foothills contain soils that are highly erosive and susceptible to erosion. Options for addressing erosion control in these areas should be considered a high priority for *the Boise Foothills Management Plan for Public Lands*.

VEGETATION

Vegetative cover and organic matter in the soil are major factors in reducing erosion potential. Vegetation holds the surface soils in place with roots, slows runoff, and reduces the chance of rill and gully erosion. Good plant growth also increases the amount of organic matter in the soil, which also reduces erosion potential. Areas in the Foothills where vegetation has been disturbed or removed by fire or that have been overgrazed or affected by vehicles or other recreational activities are susceptible to erosion. Protection of the vegetation in the Foothills should be a high priority to planners to prevent soil erosion.



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Aspect affects the vegetation density on slopes and should also be considered during planning. Steep south- or west-facing slopes are commonly sparsely vegetated, which results in soils with low organic matter accumulations. The lack of vegetation can be attributed to drought conditions caused by shallow soils, southern exposure, and runoff. The sparse vegetation, combined with slope, makes these soils highly erosive. Conversely, north- or east-facing slopes have deep, dark loamy soils protected by thicker vegetation. Vegetative growth results from the better soil-moisture regime related to a more favorable north or east exposure. These soils are more resilient to erosion because organic matter and vegetation are present.

The difference in aspects reflected through vegetation creates a lower potential for erosion on the north and east slopes than on the south- and west-facing slopes. Based on these observations, aspect is an important characteristic of the Foothills area, and specific standards, based on exposure, might need to be developed for activities that impact soils, (Boise City Community Planning and Development Department 1994; Harkness, pers. comm. 2000).

LANDSLIDES

Several areas of the Foothills have experienced landslides in historic times, and there are several prehistoric landslide areas of uncertain stability. The volcanic materials of the eastern Foothills are particularly susceptible to slope instability; however, sedimentary materials underlying the western Foothills are also subject to slope failure under certain conditions. A slope angle of 14 degrees (slope grade of 25%) or greater appears to be the critical slope on which landslides may occur in the Foothills (Boise City Community Planning and Development Department 1994). See [Figure 3](#) for the location of landslides.

SLOPE FAILURES

Slope failures can be caused by excavating cuts or placing fills; altering drainage of water, drainfields, or wastewater disposal; irrigating landscaped areas; or having water lines that break. More often, movement is triggered by saturation of soils by water during storms or years of unusually high precipitation, such as in 1983 and 1984. Earthquakes can also trigger landslides, although the Boise area has not been subjected to intense shaking that would trigger slope failures within the 120-year historical record (Boise City Community Planning and Development Department 1994).

GEOLOGY

The geology of the Foothills area can be subdivided into three general types: 1) upland areas underlain by the Idaho batholith granitic rock, 2) eastern Foothills partly underlain by volcanic materials, and 3) southwestern Foothills underlain mostly by friable silt and sand sediment. There are a few outcrops of hard rock within the project area. The most scenic examples are Table Rock, Castle Rock, and Quarry View; along Clubview and Crestline Drives; Stuart Gulch; Rocky Canyon; Dry Creek Valley; and Stack Rock just outside the planning area boundaries. Two sizable basalt lava flows exist - one east of Table Rock and the other north of Dry Creek and west of Bogus Basin Road. The rest of the Foothills are rounded, fairly steep hills (Boise City Community Planning and Development Department 1994). These rock outcrops provide scenic value and unique wildlife habitat. A geometric surface map is presented in [Figure 4](#).



The Foothills contain several faults, some having displacements of a few inches and others having displacements of 100 to 800 feet. Fault movement has occurred in the Boise Valley within the last 500,000 years. There is no evidence that these faults have moved within the last 11,000 years, nor have a significant number of small earthquakes occurred on any of the Foothills faults (Boise City Community Planning and Development Department 1994). While information about faults and landslides is used primarily when planning for residential and other forms of development, it was considered in the plan to aid in planning recreation components such as trails. In many cases, avoidance of these areas is the best action. [Figure 3](#) exhibits the fault lines in the Foothills.

The hazard from seismic shaking from an earthquake in a zone of more active faults, about 30 miles north of Boise, is presented. Hazards from slope failures in the Foothills triggered by earthquakes should be considered a potential problem in the Foothills (Boise City Community Planning and Development Department 1994). These areas are identified and mapped in [Figure 3](#).

THREATS TO SOILS AND GEOLOGY

The Foothills are susceptible to erosion because of existing slope, sparse vegetation, and easily erosive soils. Impacts on soil include activities that disturb the soil surface, deplete vegetation, or channel water that will accelerate erosion. Potential threats to soils are:

- Damage to existing vegetation— Damage or removal of existing vegetation increases soil erosion potential.
- Construction— Construction, including roads, removes existing soils and creates water drainages that can contribute to soil erosion.

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- Improper drainage—Drainages that are not properly installed (such as culverts) can cause scouring and channelization that could develop into rill-and-gully erosion.
- Off-road and off-trail motorized and nonmotorized use—Off-road vehicles and off-trail activities can negatively affect vegetation and soil structure and initiate soil erosion.
- Rangeland livestock grazing—Domestic livestock can have negative impacts on plant populations and decrease soil stability.
- Wildfires—Wildfires remove vegetation and increase the potential for soil erosion.
- Surface disturbances—Surface disturbances such as mining or excavations can initiate soil erosion.
- Weed invasions—Establishment of weeds can increase erosion and affect the natural fire cycle.
- Transportation design—Road and trail placement and construction can increase vulnerability of slopes to erosion.
- Trail use—Overuse or misuse of trails can damage adjacent plant communities that help stabilize soils and prevent erosion.

EXISTING MANAGEMENT POLICIES FOR SOILS AND GEOLOGY

The Agency Resource Working Group used existing agency policies to develop objectives and recommendations for this 2014 Plan (see Goals, Objectives, and Recommendations). Similarities and differences among agency policies related to stability and erosion potential are described in this section. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land or policies that may be developed in the future. Instead, the recommendations offer an overarching direction for approaching management of erosion and soil stability in the Foothills as a whole.

A description of the similarities and differences for each agency is presented first, followed by the agency policy table (see [Table 8](#)).

STABILITY AND EROSION POTENTIAL

Each agency considers erosion a serious problem. Generally, each agency has policies to address erosion. Federal and state agencies provide a broader approach to erosion control by implementing policies covering all managed lands. City and county agencies have policies that address site-specific requirements for development of public and private lands.

Long-term Sustainability

Boise County, BLM, and USFS have policies to manage resources for long-term sustainability. However, it is generally a goal of all agencies to manage their lands for long-term use.

Coordination

IDFG require open communication with agencies and private landowners to reduce erosion and adjacent property runoff.

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Revegetation

Boise City, Ada County, and BLM require that areas disturbed during construction activities be revegetated. Ada County specifically requires revegetation of disturbed lands within one year.

Boise City, Ada County, BLM, and USFS require proper design of facilities and developments to reduce erosion and on-site runoff.

In addition, Boise Parks and Recreation Department has identified the following in its *Reserves Master Plan* to reduce erosion:

- Prohibit off-trail use.
- Provide seasonal-use restrictions to reduce impacts on soils and vegetation.
- Provide signs to educate users.
- Reduce noxious weeds to enhance native plant species populations.
- Reclaim disturbed areas through revegetation and rehabilitation to reduce erosion and slow surface runoff.

REFERENCES

POLICY DOCUMENTS

Boise City Community Planning and Development Department, 1994. Foothills Plan Background Report.

Collett, Russell A. 1980. The Soil Survey of Ada County Area, Idaho. U.S. Department of Agriculture.

Harkness, Alan. 1997. Soil Survey of Boise Front Project, Idaho. U.S. Department of Agriculture. 192 pp.

INTERVIEWS + OTHER SOURCES

Harkness, Alan. 2000. Natural Resource Conservation Service, U.S. Department of Agriculture. Personal communication to David Kordiyak, Special Dynamics. January 20.

Interagency Fire Team 1996.

EXISTING MANAGEMENT POLICY SUMMARY TABLES

TABLE 8 STABILITY AND EROSION POTENTIAL

Agency policy statements about stability and erosion potential in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS
<p>Development designed to avoid hazards and engineered to minimize risk to structures and life. <i>21(02:1)</i></p> <p>Avoid or mitigate hazards associated with geotechnical, geological, geomorphic, and hydrologic characteristics of proposed Foothills development. <i>21(02:1:1)</i></p> <p>Lands shall be revegetated for water erosion control. <i>21(02:1:2)</i></p>	<p>Tributary floodways shall not be altered so that they would increase flood damage by lateral erosion. <i>35(6:2-8)</i></p> <p>Require runoff by development to be controlled on-site or integrated into a watershed plan to maintain natural runoff rates, reduce erosion and flooding, and maintain area's water quality. <i>35(6:3-5)</i></p>	<p>Erosion along the county's streams and riverbanks is a major problem. Monitoring of sedimentation in stream bottoms may be useful in determining whether efforts in mitigation are practicable and should be undertaken. <i>27(p 42)</i></p> <p>Objective— Manage Resource for long-term sustainability. <i>27(p 43)</i></p>	<p>The department will maintain effective channels of communication with others concerned with managing Idaho's land and water resources, to ensure that fish and wildlife resources are considered in planning activities. <i>42(p. 19)</i></p> <p>The department will support and participate in efforts to eliminate nonpoint source pollution to Idaho's waters, restore water quality where needed, and protect or restore beneficial uses. <i>42(p. 19)</i></p> <p>The department will strive to ensure that adequate flows remain in Idaho streams to protect aquatic and riparian resources and provide fish and wildlife-oriented recreation. <i>42(p. 19)</i></p>	<p>Soil will be managed to maintain productivity and to minimize erosion. <i>34(p. 14)</i></p> <p>Project-level planning will consider the sensitivity of soil, water, and air resources in the affected areas on a site-specific basis. Stipulations will ensure project compatibility with soil, water, and air resource management. All construction of management facilities and land treatments will be designed to minimize adverse impacts on the soil, water, and air resources. Areas disturbed during project construction will be reseeded with a mixture of grasses, forbs and shrubbery when necessary. <i>34(p 14)</i></p>	<p>Goal: Implement management activities to minimize short-term impacts on soil and water resources and to maintain or enhance long-term soil productivity and water quality and quantity. <i>33(IV-65)</i></p> <p>Goal: Develop basic soil and water inventories to a level that facilitates sound management decisions. <i>33(IV-65)</i></p>

3-3 PLANT COMMUNITIES, RARE PLANTS, AND NOXIOUS WEEDS IN THE BOISE FOOTHILLS

Plant Communities. The plant communities in the Boise Foothills can be divided into six major types: grasslands, upland shrub, mountain shrub, forested, riparian, and planted woodland groves. Grassland and upland shrub communities are found on the lower and mid-elevation slopes, mountain shrub and forested vegetation on the higher elevation slopes, riparian communities on the floodplains and in gulches, and planted woodland groves near the City. The locations of these community types are shown in Figure 5.

Plant communities are important because they provide the following:

- Wildlife habitat
- Aesthetic values
- Erosion control
- Cultural values
- Water quality protection

Riparian Areas. Riparian plant communities are ecologically important in the Foothills. Riparian plant communities provide wildlife habitat, diverse plant communities, water quality protection, and flood control. In the past, the riparian areas in the Foothills were disturbed by overgrazing livestock, fires, off-road vehicles, recreational uses, and urban development. In addition, riparian vegetation zones that protect streams and provide habitat for wildlife have been lost. This loss is also a concern because of possible impacts on flood control and aquifer recharge.

The major drainages and numerous smaller drainages support riparian vegetation in the Foothills. Although all riparian areas in the Foothills are valuable, the best examples are located primarily in the longer and deeper Foothills gulches that support perennial streams.

Rare Plants. Rare plants are an important biological resource due to their uniqueness and should be protected. Once rare plant populations are seriously disturbed or destroyed, they seldom recover. Therefore, protecting existing populations in the Foothills is the best method for conserving these species.

The following rare plant species can be found in the Foothills:

- Mulford's milkvetch (*Astragalus mulfordiae*)
- Slick-spot peppergrass (*Lepidium papilliferum*)
- Aase's onion (*Allium aaseae*)

Weeds. Weeds are exotic plant species that invade and displace native vegetation. Once established, some weeds aggressively out-compete desirable native plants for moisture, nutrients, space, and sunlight. Weeds are currently spreading in the Foothills. Without weed management programs, these aggressive plants will continue to degrade the Foothills ecosystem by replacing native vegetation and changing the fire ecology.

PLANT COMMUNITIES IN THE BOISE FOOTHILLS

The Foothills consist of predominantly rolling to very steep hills. Gently and moderately sloping stream terraces, draw bottoms, and alluvial fans adjacent to the drainageways at the low elevations grade to steep and very steep mountain. These topographic features provide a variety of conditions that support different native plant communities. Plant communities of the Foothills area can be divided into six major types: grasslands, upland shrub, mountain shrub, forested, riparian, and planted woodland groves. Grassland and upland shrub communities are found on the lower and mid-elevation slopes, mountain shrub and forested vegetation on the higher elevation slopes,

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riparian communities on the floodplains and in gulches, and planted woodland groves near the City. A general map of the Foothills vegetation is shown in [Figure 5](#).

These plant communities provide wildlife habitat, erosion control, and water-quality protection. The ecological condition of the vegetation in the Foothills ranges from poor to excellent. Generally, on the lower slopes of the Foothills, much of the native vegetation has been depleted from heavy grazing that occurred primarily in the late 1800s and early 1900s and more recently by frequent fires. In contrast, the rangelands and forests at higher elevations are more likely dominated by native vegetation. Annual grasses and other weeds have since replaced much of the native vegetation (United States Department of Agriculture 1997).

MAJOR VEGETATION TYPES

The six major vegetation types in the Foothills are described below.

Grasslands

Grasslands are a dominant plant community on the lower elevation slopes and are composed of lacustrine, or lakebed, soils. Grazing and fire on the lower slopes has eliminated much of the former native shrub and grass vegetation, leaving dense stands of annual grasses. These annual grasses include cheatgrass on sandy soils and medusahead on soils with higher clay content. Exotic species and state-listed noxious weeds have also impacted the grasslands. The most significant noxious forb is rush skeletonweed (Interagency Fire Team 1996).

Remnants of native vegetation remain in some lower Foothills areas where upland shrub and grass communities include bitterbrush, sagebrush, and rabbitbrush as the primary shrub species. Perennial grasses include threeawn, Sandberg's bluegrass, and bluebunch wheat grass (EDAW et al 1996).

Upland Shrub Communities

The sagebrush and bitterbrush upland shrub communities are prevalent on mid-elevation grazing and fires have altered the native composition of these communities. Thus, the existing shrub communities are represented in a patchwork of remnant native shrub communities. Herb compositions of these shrub communities range from native to exotic species. Upland shrub populations on the northeast aspects appear to be more resilient to burns and weed invasions (Mancuso 1999).

The Interagency Fire Rehabilitation Report (1996) identified shrub communities in good to excellent condition that included big sagebrush/bluebunch wheatgrass-Thurber's needlegrass on many south aspects and bitterbrush/bluebunch wheatgrass on shallow, rocky areas with south aspects. North aspects supported a big sagebrush/Idaho fescue community type. Vegetation determined to be in poor to fair



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condition was characterized by increased coverage of threeawn grass, Sandberg's bluegrass, and rabbitbrush. With increasing elevation, granitic soil plant community types become mixed shrub/grassland complexes dominated by rose, ninebark, buckbrush, chokecherry, and mountain sagebrush. Forb diversity in these transitional communities was high.

Forested

Forested areas are present in the upper elevations of the Foothills on granitic soils. The Interagency Fire Rehabilitation Report (1996) found that plant community compositions in the forested areas included Douglas fir/ninebark communities on the north aspects, while ponderosa pine with understories of bitterbrush, bluebunch wheatgrass, and Idaho fescue were found on dry or rocky sites.

Mountain Shrub

Mountain shrub areas are frequently adjacent to forested areas in the upper elevations of the Foothills. These shrub communities are dominated by chokecherry, bitter cherry, bitterbrush, and bluebunch wheatgrass. Mountain shrub communities also include ceanothus, aspen, serviceberry, mountain maple, ninebark, and snowbrush.

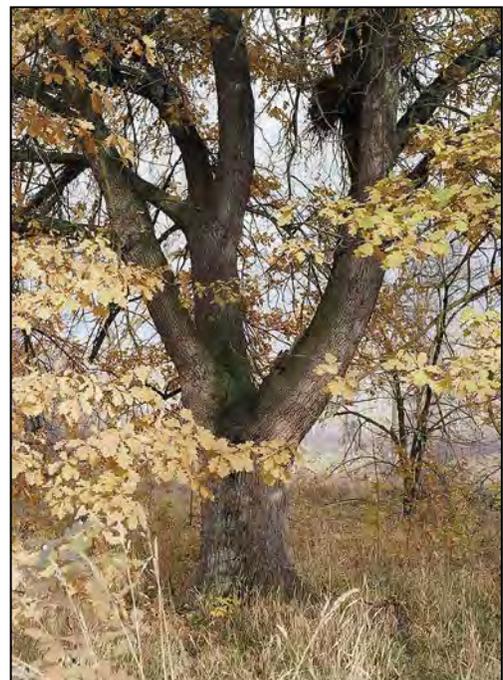
Riparian

Riparian plant communities are associated with perennial and intermittent streams throughout the Foothills. Lower elevation riparian zones generally have tree canopies dominated by black cottonwood with box elder, elm, water birch, and peach leaf willows. The shrub layer is dominated by willows (coyote and arroyo), golden currant, thin-leaf alder, black hawthorn, red-osier dogwood, poison ivy, honeysuckle, and Woods' rose. Riparian zones in the mid-to upper elevations generally do not have a tree canopy, but are dominated by the willows and shrubs listed above. Detailed compositions of several riparian plant communities are documented in Moseley et al. 1992.

Emergent wetlands are also found within the riparian zones in the Foothills. Willows, cattails, and sedges generally dominate the vegetation in these areas. Standing water can be found in some areas. Grazing and drought have reduced the extent of the wetlands (*Reserves Master Plan: Hulls Gulch/Camel's Back Reserve and Military Reserve* 1996). National Wetland Inventory maps for the Foothills are available, but were not reviewed for this effort.

Planted Woodland Groves

Planted woodland groves, consisting of exotic tree plantings, are located in the lower Foothills adjacent to the city. Tree species that occur in this mix include black locust, silver maple, tree of heaven, Scotch pine, linden, Norway maple, and oak. One example of this community type is restricted to the flats east of the lower water tank in Hulls Gulch. Introduced trees in the groves show little evidence of regeneration. The understory is primarily a mixture of annual and perennial grasses (*Reserves*



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Master Plan: Hulls Gulch/Camel's Back Reserve and Military Reserve 1996).

The plant communities described above give a general overview of vegetation diversity in the Foothills. The native communities should be protected to provide native vegetation, wildlife habitat, erosion control, and water-quality functions in the ecosystem. The vegetation map provided in Figure 5 illustrates the locations of the major plant communities in the Foothills and can be used as a tool for open space planning. Further research needs to be conducted to classify existing vegetation in detail. Such an analysis would provide important planning information including locations of important native plant populations, existing high- and low-quality wildlife habitat, potential erosion-control areas, and possible fire hazards.

Additional research would also provide further information on the following climax plant communities, those that are stable and self-perpetuating, that soils data indicate could exist in the Foothills (Boise Front CRMP 1996):

- Basin big sagebrush/bluebunch wheatgrass
- Basin big sagebrush/bluebunch wheatgrass- Thurber's needlegrass
- Basin big sagebrush/big basin wild rye
- Basin big sagebrush-bitterbrush/needle-and-thread grass
- Sagebrush-bitterbrush/bluebunch wheatgrass
- Sagebrush/bluebunch wheatgrass
- Sagebrush/Idaho fescue

The identification of these climax communities would indicate additional areas to preserve.

SENSITIVE PLANT COMMUNITIES

Riparian

The major drainages and numerous smaller drainages support riparian vegetation in the Foothills. The quality, variety, length, width, and distribution of these riparian communities depend on the availability of water, drainage topography, aspect, and extent of surface disturbance in the riparian zone. The best-developed examples are primarily located in longer and deeper Foothills gulches that support perennial streams. Riparian areas are shown in Figures 5 and 12.

Riparian plant communities are ecologically important in the Foothills. Because they provide wildlife habitat, diverse plant communities, water quality protection, and flood control, these communities should be preserved. In the past, the riparian areas in the Foothills have been disturbed by overgrazing livestock, fires, off-road vehicles, recreational uses, and urban development. In addition, riparian vegetation zones that protect streams and provide habitat for wildlife have been lost. This loss is also a concern because of possible impacts on flood control and aquifer recharge (Boise City Community Planning and Development Department 1994).

Bitterbrush/Needle-and-thread Grass Community Type

The bitterbrush/needle-and-thread grass (*Purshia tridentata/Stipa comata*) community type is restricted to the Columbia Basin in Washington, Oregon, and adjacent British Columbia, and is scattered along the northern edge of the western Snake River Plain. Humans have significantly disturbed bitterbrush/needle-and-thread grass communities throughout their range. Therefore,

occurrences of high ecological quality are rare. Small ecologically viable stands of this community could still occur in the Foothills, but Moseley et al. (1992) did not find any large examples in the lower Foothills.

RARE PLANT SPECIES

Three rare plant species, Aase's onion (*Allium aaseae*), Mulford's milkvetch (*Astragalus mulfordiae*), and slick-spot peppergrass (*Lepidium papilliferum*), are found in the Foothills. Wilcox's Primrose (*Primula wilcoxianana*), previously considered rare, is now considered *Primula cusickiana*, a very common primrose species in Idaho. In addition, one rare lichen species, Compact earth lichen (*Catapyrenium congestum*) is found in the Foothills. Most of the known populations of these plants occur below the contact between the granitic rocks of the Idaho batholith and the sediments of the lower Foothills. All three rare plant species and the lichen are susceptible to disturbance and do not regenerate easily. Once a rare plant population is disturbed or destroyed, it seldom recovers. Therefore, protecting the existing populations is the best method for conserving these species. The plants are an important biological resource due to their rarity and uniqueness.

Descriptions

Aase's Onion (Allium Aaseae). Aase's onion populations in the Foothills comprise approximately half of the global distribution of the species in terms of both area and numbers. Aase's onion is restricted to steep, well-drained sandy slopes in the lower Foothills between Boise and Weiser. Populations of Aase's onion are found on many of the undeveloped, sandy, south-facing slopes. These populations can be quite dense, but the total area occupied by the onion is relatively small. Habitat loss and degradation caused by development and other activities are the main threats to this species (Moseley et al. 1992). See [Figure 6](#) for Boise Foothills locations of Aase's onion populations.



Mulford's Milkvetch (Astragalus mulfordiae). Mulford's milkvetch is a deep-rooted member of the pea family found in three widely separated areas in southwestern Idaho and adjacent Oregon. It occurs on sandy south- to west-facing slopes. Habitat loss and degradation caused by development and other activities are the main threats to this species (Moseley et al. 1992). See [Figure 6](#) for Foothills locations of Mulford's milkvetch populations.

Slick-spot Peppergrass (Lepidium papilliferum). Slick-spot peppergrass is one of Idaho's highest priority plant conservation concerns. This small annual and biennial plant species in the mustard family, endemic to southwestern Idaho, was thought to be extinct until the rediscovery in the Foothills in 1972. Its primary range is the western Snake River Plain and adjacent Foothills. Slick-spot peppergrass is restricted to small openings called nitric sites, mini-playas, playettes, or slick

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spots in the region's sagebrush- grassland ecosystem. Much of the native habitat has been destroyed or seriously degraded by agricultural conversions, housing developments, weed invasions, wildfires, and pasture seeding (Mancuso et al. 1998). See [Figure 6](#) for Foothills locations of slick-spot peppergrass populations.

Wilcox's Primrose (Primula wilcoxiana). This plant was previously considered rare, but the most updated taxonomic data (2001) no longer supports this as a separate species. It is now considered *Primula cusickiana*, a very common primrose species in Idaho. *Primula wilcoxiana* is no longer recognized by the Idaho Native Plant Society (INPS). Since it is a common and stable species, INPS and IDFG does not track or list *Primula cusickiana* as a rare plant species. However, INPS feels that the Boise Foothills populations of this species grow in a unique habitat compared with other occurrences and that it contains important genetic diversity for the species as a whole. Ultimately, the species is stable and very common through the rest of Idaho.

Compact Earth Lichen. There are only six records of this very rare lichen in Idaho. One of the occurrences is in the Boise Foothills. Otherwise, it has only been found once in Utah and Wyoming. The lichen is a biological crust and occurs in the upland shrub plant community with sagebrush. It is restricted to barren, slightly nitric soil habitat similar to slick-spot peppergrass. This species is currently ranked 'S2' priority by INPS and is a BLM sensitive species. It is currently under threat of livestock trampling and other disturbances to the biological crust layer.

Status

Aase's onion and Mulford's milkvetch are presently listed as federal species of concern and BLM sensitive species. Compact earth lichen is also listed as a BLM sensitive species. A species is listed as a federal species of concern when available information supports tracking the status and any threats to its livelihood. Sensitive species are species of conservation concern for the BLM. However, in August 2012, a federal judge ordered slick-spot peppergrass to be removed from the listing and be reevaluated by the USFWS. INPS still considers this a rare and threatened plant species. A species is designated a candidate species when sufficient biological vulnerability and threat information is on file to support the issuance of a proposed rule to list the species under the Endangered Species Act.

NOXIOUS WEEDS

Noxious weeds are exotic plant species that invade and displace desirable native vegetation. Noxious weeds in the Foothills are typically spread through the dispersal of seed or plant parts. Wind, water, animals, machinery, and people carry seeds/ plant parts from one location to another, broadening the range where weeds establish. Roads, farming, grazing, logging, urban development, natural erosion, dog waste, and recreation disturb soils in the Foothills. The disturbed soil provides prime habitat for weeds. After taking hold, these weeds aggressively compete with native plants for moisture, nutrients, space, and sunlight. Established weed populations damage the ecosystem because they form monocultures that eliminate diverse native communities, increase erosion, diminish native forage production for herbivores, reduce native wildlife habitats, and alter natural fire frequencies and intensities. In addition, some species have toxins that harm wildlife. Currently, weeds are spreading in the Foothills; without weed management programs, these aggressive plants will continue to degrade the Foothills ecosystems.

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According to Environmental Conservation Services' 2008 report to the City of Boise and Ada County Weed Control (ACWC), infestations of noxious weeds in the Foothills include rush skeletonweed, whitetop, Canada thistle, Scotch thistle, field bindweed, puncturevine, poison hemlock, houndstongue, saltcedar, jointed goatgrass, and purple loosestrife. In addition, the Boise Parks and Recreation Department has identified cornflower/bachelor's button. Of these species, rush skeletonweed is the most pervasive, and causes the most damage to the Foothills ecosystem (Environmental Conservation Services Inc., 2008). Also, exotic grasses such as medusahead and cheatgrass, have proliferated within the Foothills ecosystems and are now the dominant plant species (Environmental Conservation Services Inc., 2008). Cheatgrass and medusahead significantly increase both the frequency and intensity of wildfires by providing annually abundant, continuous, and extremely flammable fuel early in the fire season (Wilbur 1999). Both of these annual grasses thrive in recently burned areas or disturbed areas and quickly establish before native plant communities recover. This sets up a rapid cycle of wildfire (disturbance) and cheatgrass/medusahead advancement across the Foothills.

Controlling the spread of noxious weeds is ACWC's primary objective. Public land management agencies in the Foothills use ACWC, internal resources, and other contractors for weed control, consultation on best practices for dealing with infestations, and population mapping in the Foothills. Currently, the City of Boise employs a number of techniques for managing weeds within the Foothills. These techniques include, but are not limited to, herbicide applications, hand pulling, mechanically removing (e.g., mowing and weed whacking), and strategic grazing.

All of ACWC's vehicles are equipped with GIS/GPS technology to help workers quickly identify and track noxious weed infestations throughout Ada County. Some of the Foothills Management Area includes Boise County. Spotted knapweed is the most prevalent noxious weed in that county. Spotted knapweed has only been found in small pockets in Ada County such as along Shingle Creek and Highway 21 in the Boise River WMA.

In 2008, the City of Boise conducted a weed survey of eight City-owned reserves/properties totaling 2,547 acres to better understand the variety of species found and their extent on City property. BLM has a program to develop best management practices for the control of rush skeletonweed. Initial studies are using infrared mapping techniques and seed trial plot data to identify infestations. Overall, proper weed management in the Foothills will depend on completion of a weed survey across all public lands and reducing the spread of established species while eliminating the infestations of any new species.

RESERVES

Because of their proximity to Boise, native grassland, upland shrub, and riparian plant communities in the Foothills have been affected by grazing, weeds, fire, and development. Reserves are one way of conserving rare plants and native plant communities to ensure that some quality habitat can be protected. Moseley (1996) designed a system of eight conservation reserves. Five of these are within the boundaries of the Foothills project area. All have high-quality habitat containing large populations of one to three rare species, and except for one, all have public land at their cores and have never been developed. These reserve areas are listed in [Table 9](#).

TABLE 9 CONSERVATION RESERVES IN THE BOISE FOOTHILLS PROJECT AREA

Site Name	Land Status
Military Reserve	City-owned Military Reserve BLM land and unprotected private land
Hulls Gulch Reserve	City-owned Hulls Gulch Reserve and unprotected private land
Stewart Gulch	BLM land and unprotected private land
Seaman Gulch	Ada County land (Hidden Hollow Landfill), BLM land, and unprotected private land
Cartwright Canyon – Polecat Gulch Reserve	City of Boise-owned Polecat Gulch Reserve, BLM – ACEC (area of critical environmental concern) land, and unprotected private land

The Boise City Heritage Committee completed a study in 1993. The ensuing report identified and prioritized parcels that should be preserved as public open space because of available wildlife habitat or because of their unique environmental, recreational, aesthetic, or historical characteristics or value. The study identified 19 parcels associated with rare plants, riparian vegetation, or wildlife habitat in the Foothills that should be considered for preservation. However, the report only identified parcels within the Boise City Area of Impact of 1993. Refer to the *Potential Public Preservation Sites* report for a description of these sites.

The Boise City Heritage Committee study and Moseley’s 1996 research indicate areas of opportunity for the preservation of native plant communities, rare plants, wildlife habitat, and open space. These areas were recommended for conservation as natural reserves.

THREATS TO PLANT COMMUNITIES

Grazing, urbanization, and irrigation have already contributed to the degradation, fragmentation, and conversion of native sagebrush steppe. In addition, development in the Foothills threatens the rare plant populations and native plant communities. The following threats were identified by Moseley (1989), Mancuso and Moseley (1991), Rosentreter (1992), and Moseley et al. (1998) and continue to affect the native plant communities and rare plant populations in the Foothills:

- Off-highway vehicle recreation—Off-road and off-trail activities harm populations of rare species by compacting soils and initiating erosion.
- Urban developments—Residential construction, including roads, destroys existing habitat for rare plant species.
- Weed invasions—Competition from weeds, including exotic grasses, reduces vigor and excludes native plant populations. Weeds also contribute to a loss of native wildlife habitats because they compete with native vegetation, increase erosion, displace native species, and affect the natural fire cycle.
- Rangeland livestock grazing—Grazing and trampling by domestic livestock disturb rare plant populations.
- Mining—Populations have been threatened in areas by silica sand mining operations.
- Wildfires—Wildfires convert sagebrush to annual grasslands that replace native communities.
- Mechanical disturbances—Mechanical disturbances to the soil caused by rehabilitation efforts such as tilling and reseeded can harm rare species populations.

EXISTING MANAGEMENT POLICIES FOR PLANT COMMUNITIES

The working group referenced existing agency policies to develop objectives and recommendations for this 2014 Plan (see Goals, Objectives, and Recommendations). Similarities and differences among agency policies are described in this section across three topic areas: plant communities, rare plants, and weeds. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land. Instead, the recommendations offer an overarching direction for approaching plant communities in the Foothills as a whole. Tables 10 and 11 at the end of the chapter list the agency policy statements related to plant communities.

PROTECTION OF NATIVE AND SENSITIVE PLANTS

Each agency recognizes the importance of protecting native and sensitive plants for maintaining natural heritage, reducing erosion, protecting water quality, and providing cover for wildlife (see [Table 10](#)). The BLM and USFS designate riparian buffer zones and restrict streamside activities to protect water quality and riparian diversity, while allowing activities outside those buffer zones. Boise City and Ada County encourage the use of native plants in landscaping projects adjacent to Foothills open lands and the protection of existing riparian species.

All agencies recognize the importance of the riparian areas. However, the BLM and USFS provide specific policies on the protection of this area. The BLM was the only agency identified that requires that wetland and riparian areas meet state and federal standards; however, in its land and resource management plan, the USFS does identify resource standards that meet or exceed state water quality standards. All other agencies, however, have policies that require protection of riparian areas or direct coordination with adjacent landowners for riparian protection.

There are two different interpretations of the riparian buffer zone. The BLM restricts nearly all activities from the riparian area, dependent on the foreseeable risks posed by activities. For example, the BLM does not allow new roads, grazing, or timber harvest activities within 100 feet of streams, nor is mineral extraction or petroleum exploration allowed within 500 feet, though the probability of these activities occurring in the Foothills is low. The BLM withholds areas with endangered, threatened, or sensitive species from agricultural use such as grazing, since such use could further jeopardize those species. The BLM also recommends fencing or artificial off-stream pools for livestock watering to prevent livestock from accessing open waters.

The USFS opposes new road construction within the buffer zone, but allows activities compatible with existing riparian areas. In this way, the USFS embraces multiple uses, with its emphasis on active agency management and use of resources.

The IDFG, IDL, Boise and Ada Counties, and Boise City do not recognize or advocate the development and implementation of buffer zones. Rather, activities are reviewed on a site-specific basis.

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Boise Parks and Recreation Department has also identified the following recommendations in the *Reserves Master Plan* for species protection. These policies will be used as a reference point for the development of an updated Reserves Plan, to be developed in late 2014-15.

- Prohibit swimming and human use in all ponds to protect riparian areas and riparian-dependent wildlife habitat.
- Provide bridges to protect riparian areas and the stream channel.
- Use signs to educate.
- Use fencing.
- Encourage reserves users to stay on marked trails to reduce impacts on soils, vegetation, and wildlife.
- Avoid rare plant sites.
- Consider seasonal or daily reserve closures where necessary to reduce erosion or threats to rare or sensitive plant communities.
- Rehabilitate disturbed areas by planting native species.
- Control noxious weeds and exotic plants by removing them.
- Prevent wildfire by coordinating with adjacent landowners and providing education.

NOXIOUS WEEDS

The city, state, and federal agencies advocate cooperation with county-level agencies on the inventory and identification of noxious weeds and steps for control and eradication. However, Ada and Boise Counties and the IDFG do not have policies related to noxious weed control (see [Table 11](#)).

Federal agencies recommend close cooperation with other agencies on noxious weed removal and control, including state, county, and local organizations, where applicable. Depending on the plant species and the local environment, recommended means for weed control include physical removal, reintroduction of native plants, and use of herbicides.

REFERENCES

POLICY DOCUMENTS

- Ada County Weed and Pest Control (ADWPC). 1999. Comprehensive & Coordinated Program for the Prevention, Eradication and Management of Noxious and other Undesirable Weeds. Working document.
- Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.
- Boise City Heritage Preservation Committee. February 1993. Potential Public Preservation Sites. 22 pp.
- Boise Front CRMP Report. 1996. Report for the Cooperative Development of a Wildlife and Landscape Watershed Analysis for the Boise Foothills. Unfinished draft report.
- Bureau of Land Management (BLM). March 1999. Areas of Critical Environmental Concern. Unpublished report. Boise District Office, Boise, ID.
- Debolt, Ann and Roger Rosentreter. 1998. An Illustrated Guide to Sensitive Plants of the Boise District Bureau of Land Management. Technical bulletin. Idaho BLM.

3. BACKGROUND ENVIRONMENT

EDAW, CH2M Hill, and Jensen-Belts Associates. July 1996. Reserves Master Plan, Hulls Gulch/Camel's Back Reserve and Military Reserve.

Environmental Conservation Services, Inc. 2008. Boise Parks and Recreation Foothills Noxious Weed Inventory.

Interagency Fire Team. September 1996. Interagency Fire Rehabilitation Report. 43 pp.

Mancuso, M. and R. Moseley. 1991. Field Investigation of *Allium aaseae* (Aase's Onion) on the Boise National Forest. Conservation Data Center, Nongame/Endangered Wildlife Program, Idaho Department of Fish and Game.

Mancuso, M., C. Murphy, and R. Moseley. 1998. Assessing and Monitoring Habitat Integrity for *Lepidium papilliferum* (Slick-spot Peppergrass) in the Sagebrush-Steppe of Southwestern Idaho. Prepared for the State of Idaho, Military Division.

Moseley, R. 1989. Report on the Conservation Status of *Astragalus mulfordiae* in Idaho. Natural Heritage Section, Nongame Fish and Wildlife/Endangered Species Program, Idaho Department of Fish and Game.

Moseley, Robert. 1996. Conservation Reserves for Threatened Plants in the Boise Foothills. Unpublished report.

Rosentreter, Roger. 1992. Displacement of Rare Plants by Exotic Grasses. Presented at Symposium of Ecology, Management and Restoration of Intermountain Annual Rangelands. 6 pp.

U.S. Department of Agriculture. 1997. Soil Survey of Boise Front Project, Idaho. 192 Pages.

U.S. Department of Agriculture, Forest Service. 2010. Boise National Forest Land and Resource Management Plan.

INTERVIEWS AND OTHER SOURCES

Fulkerson, Justin. 2012. Personal communication through the Idaho Native Plant Society to Julia Grant, City of Boise. September.

Mancuso, Mike. Idaho Department of Fish and Game. December 13, 1999. Personal communication to David Kordiyak, Spatial Dynamics.

Wilbur, Brian. Ada County Weed and Pest Control. December 16, 1999. Personal communication to David Kordiyak, Spatial Dynamics.

EXISTING MANAGEMENT POLICY SUMMARY TABLES

TABLE 10 NATIVE AND SENSITIVE PLANTS

Agency policy statements about native and sensitive species in the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Goal FH-CCN 6: Preserve the wildlife habitat and scenic values of the Foothills viewed while providing for buildable slopes and base unit density.</p> <p>FH-CCN 6.1: CLUSTER DEVELOPMENT</p>	<p>Encourage preservation of existing healthy trees and rare plant species. 35(6.1-8)</p> <p>Prohibit construction and development in geologic</p>	<p>Objective—Management Resource for long-term sustainability. 27(page 43)</p>	<p>Coordinate with the users and other agencies to ensure protection or enhancement of vegetation resources. (Memo Dec 6, 1999—DS)</p>	<p>The department will maintain effective channels of communication with others concerned with managing Idaho's land and water resources to ensure that fish and wildlife resources are</p>	<p>Riparian and wetland habitat have a high priority for protection improvement in accordance with state and national policy.</p> <p>Provide a minimum 100-foot riparian buffer zone from the edge of any riparian</p>	

3. BACKGROUND ENVIRONMENT

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>FOR HABITAT The practice of clustering of development and preserving the open spaces shall be used to maintain environmental and wildlife features, such as wetlands, threatened plant species, riparian areas, big game winter range, and sensitive wildlife habitats. All open space credited for density bonus purposes (Figure 18) must remain in a primarily natural condition with the goal to maintain it for wildlife habitat and recreational uses. Open space areas shall be located to form continuous corridors subject to the review and recommendation of the IDFG within the mapped Wildlife Habitat Areas (Figure 19). Such areas may remain as private open space, may be used for public trail easements, or may be dedicated to a public land trust or other group for conservation management purposes, with preference given to public access recommended and implemented through the Foothills Ordinance.</p>	<p>and environmental hazard areas unless otherwise proven that it can occur without threatening public health and safety. 35(6.8-1)</p>			<p>considered in planning activities. 42(p. 19)</p> <p>The department will strive to ensure that adequate flows remain in Idaho streams to protect aquatic and riparian resources and provide fish and wildlife-oriented recreation. 42(p. 19)</p>	<p>habitat to protect riparian vegetation, fisheries, and water quality. Use this zone for the general exclusion of the following activities. 34(pg. 22):</p> <p>New road construction Timber harvest activities Spraying of herbicides/pesticides Gravel extrusion</p> <p>Lands where rare, endangered, threatened, or sensitive species of plants or animals are known to live will be found unsuitable for disposal for agriculture, unless mitigation is possible.</p> <p>Use a 500-foot buffer zone from the edge of any riparian habitat for the total exclusion of the following activities. 34(pg. 22)</p> <p>Oil and gas occupancy of an exploration development.. Introduction of chemical toxicants or sediments as a result of construction, agriculture, or mining is prohibited.</p> <p>Suppression of wildfires in riparian habitats will have a high priority. Riparian areas burned will be rehabilitated through protection and, if necessary, seeded or replanted. 34(pg. 22)</p> <p>Maintain state-recommended instream flows for the maintenance and preservation of aquatic and riparian</p>	

3. BACKGROUNDENVIRONMENT

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
					<p>ecosystems. In all cases, allow no proposals that include dewatering of the streambed. <i>34(pg. 22)</i></p> <p>Allow no livestock activities within riparian zones.</p> <p>Avoid construction activities that remove or destroy riparian vegetation. <i>34(pg. 22)</i></p> <p>Design all new spring developments and modify selected existing spring developments to protect wetted areas. Where possible, and if the need exists for wildlife, fence reservoirs and provide water for livestock away from the reservoirs. Wildlife habitat needs will be considered when reservoir site determinations are made. <i>34(pg. 22)</i></p>	

3. BACKGROUND ENVIRONMENT

TABLE 11 NOXIOUS WEEDS IN THE FOOTHILLS

Agency policy statements about noxious weeds in the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
	<p>Local enforcement authority for Idaho weed laws.</p>		<p>Work with county government to eradicate or control noxious weeds on state lands <i>(Memo Dec 6, 1999—DS)</i></p>		<p>BLM districts will work with county governments to monitor the location and spread of noxious weeds and to maintain up-to-date inventory records. BLM will control the spread of noxious weeds on public lands where possible, economically feasible, and to the extent that funds are prioritized for that purpose. <i>34(pg. 29)</i></p> <p>Noxious weed control will be conducted in accordance with integrated weed management guidelines and design features identified in the Northwest Area Noxious Weed Control Program Environmental Impact Statement of 12/85. <i>34(pg. 29)</i></p> <p>Refer to the Partners Against Weeds for further priorities, goals, planning, coordination, and monitoring of noxious weeds.</p>	

3-4 WILDLIFE IN THE BOISE FOOTHILLS

The Boise Foothills ecosystem supports populations of more than 290 wildlife species. Among these are large wintering populations of mule deer and elk, migrating raptors and neotropical birds, and several rare or otherwise special status species. More than 200 species of birds use the Foothills at various times of the year. Golden eagles and other raptors hunt in the open sagebrush and grasslands year-round. During winter, bald eagles frequent the Foothills to scavenge on winter-killed carcasses of mule deer and elk.

The 1998 aerial survey and the sightability model [cite] estimated the number of mule deer using the crucial winter range of the project to be approximately 6,060. Other big game found in the Foothills are Rocky Mountain elk, whitetail deer, black bear, mountain lion, and pronghorn antelope. Critical winter habitat for Foothills big game includes south-facing slopes, ridgetops, saddles, riparian areas, and, for mule deer, areas below 4,500 feet in elevation.

Foothills streams, springs, and seeps, which provide a valuable resource to wildlife, are limited in number and location. Wildlife corridors are located within or adjacent to many of the riparian areas associated with perennial and intermittent streams. However, increased urbanization, intensified recreational activity, and other uses within the Foothills have fragmented habitat, disrupted wildlife travel corridors, eliminated key habitats such as riparian zones, and reduced habitat diversity.

Although certain habitats essential to large numbers of wildlife species are known to exist in the Foothills, no comprehensive scientific evaluation of wildlife habitat has been completed for the project area.

Nearly 300 species of wild animals can be found in the Foothills during the course of a year. Notable among these are large wintering populations of mule deer and elk; migrating raptors and neotropical birds (those that migrate south to Central America, the West Indies, or South America); lizards; snakes; amphibians; and several rare or otherwise special status species. For wildlife populations to continue to thrive, core habitats that supply sufficient food, security cover, thermal cover, water, and space must be available for them to use every day. Appendix C lists wildlife species known to occur in the Hulls Gulch Nature Preserve and adjacent Foothills.

Wildlife species in the Foothills are sensitive to the impacts of urban development and associated human encroachments into important habitat areas. The size and diversity of Foothills wildlife populations will be influenced by the amount of land that remains undeveloped or that is reserved in large continuous blocks or linear bands and how and when people use the Foothills for recreation. The continued presence of sensitive animal species will be determined by how their habitats are managed, especially core habitat areas such as riparian zones, wetlands, and sagebrush steppe. Protection, improvement, and management of wildlife habitat in the Foothills will be necessary to maintain viable, healthy, and diverse numbers of wildlife species in and around Boise's urbanized area.

FOOTHILLS WILDLIFE SPECIES

From about November to April, the Foothills are a crucial winter range for 6,000 to 8,000 mule deer. The population density of mule deer is greatest near the Boise River WMA in the eastern part of the Foothills project area (see [Figure 7](#)). A small number of mule deer are year-round residents of the Foothills; however, the majority migrate from summer ranges as far away as the Sawtooth Mountains. The Highland Valley and Shaw Mountain roads, in the eastern part of the Foothills project area, are closed to motorized vehicles from November 16 until May 1 to protect this population of wintering mule deer.

3. BACKGROUND ENVIRONMENT

A population of Rocky Mountain elk also depends on the Foothills. As with mule deer, the elk primarily use the Foothills during the winter, but the number of year-round residents is increasing. The Foothills winter elk population ranges from a few hundred to several thousand (Bottum, pers. comm. 2012).

Although less common, other Foothills big game include whitetail deer, pronghorn antelope, black bear, mountain lion, and gray wolf (Bottum, pers. comm. 2012).

A great variety of smaller mammals also inhabit the Foothills. These include bobcat, coyote, mink, muskrat, raccoon, weasel, skunk, badger, red fox, yellow-bellied marmot, hare, rabbit, mouse, rat, squirrel, gopher, vole, shrew, and bat. Some of these wildlife species prefer upland sites, while others often inhabit riparian and wetland areas (EDAW et al. 1996).

Upland game birds found in the project area include quail, dove, chukar, gray partridge, and grouse. Quail are prevalent throughout the Foothills, especially in urbanized areas. Chukar inhabit rocky areas and grassy hillsides. Blue and ruffed grouse are sometimes found in the mixed coniferous and riparian and sagebrush areas in the upper elevations of the Foothills (Boise City Community Planning and Development Department 1994).

Approximately 214 species of birds use the Foothills at various times of the year. The variety of vegetation found in the Foothills provides the habitat to support these birds during various stages of their life cycle by providing food and cover. Mountain shrub community habitat along the Boise Ridge is used annually by migrating populations of raptors and neotropical birds. Some Foothills bird species, such as Brewer's sparrow and sage thrasher, require stands of sagebrush for nesting and rearing their young. In addition, various rock outcrops and cliffs, such as the basalt cliffs along State Highway 21 near Lucky Peak Reservoir, provide nesting habitat for raptors and other birds.

The Foothills also support a variety of amphibians and reptiles. Amphibians depend directly upon the riparian wetlands for food, cover, and a place to breed and hibernate. Some amphibians only use the wetlands for one essential segment of their life cycle and then move to other habitats. Reptiles are directly dependent on the water, upland shrub and grass, and woodlands for habitat (EDAW et al. 1996).

Reports indicate that a fishery exists in Mores Creek and the upper, perennial reaches of Dry Creek (Zoellick, pers. comm. 2000). No completed studies quantify or discuss the potential for Foothills fisheries.

A number of rare or otherwise special status species are found in the Foothills at various times of the year:

- Bald eagles are found year-round along the Boise River, where they hunt fish and waterfowl. Bald eagles also scavenge on winter-killed carcasses of big game animals in the open sagebrush areas at the Foothills.

3. BACKGROUND ENVIRONMENT

- Though infrequent visitors to the Foothills, migrating ferruginous hawks can be found along the Boise Ridge. Merlins, another uncommon raptor, are also known to migrate along the Boise Ridge.
- Flammulated owls nest in the Foothills. They prefer to nest in relatively mature stands of conifers near brushy fields.
- IDFG has indicated the presence of the gray wolf in the Foothills and IDFG staff have indicated a dramatic increase in sightings. However, there has been no actual confirmation (that is, no wolves have been found dead, radioed, or trapped) (Rachel, pers. comm. 2000).
- IDFG has indicated the presence of turkeys in the Foothills. Most turkey populations are associated with the upper coniferous and mountain shrub transition zones in the Foothills (Gould, pers. comm. 2000).
- Each spring, populations of long-billed curlew migrate from Argentina to the Foothills area to nest. This large shorebird nests and raises its young in annual grass habitat on open slopes and swales. IDFG has designated this bird as a species of special concern.
- Townsend's big-eared bats roost in caves and rocky outcroppings. They require separate nursery roosts and hibernation roosts. They are adversely affected by disturbances, especially during the winter.
- Other special status species found in the Foothills include lesser goldfinch, Merriam's shrew, western small-footed myotis, pallid bat, and western ground snake.

WILDLIFE HABITAT

Wildlife species that inhabit the Foothills, either seasonally or year-round, rely on a variety of habitats to provide essential food, water, security cover, thermal cover, nesting or rearing sites, and movement corridors. These habitats largely determine the species, density, season of use, breeding success, and, ultimately, the continued survival of wildlife in the Foothills. Key habitat features are vegetation, slope, aspect, elevation, soil types, topography, and precipitation. The dominant Foothills vegetation communities are shown in [Figure 5](#).

Not all types of vegetation are suitable for every wildlife species. Mule deer seek succulent, easily digestible forage. On winter range, mule deer prefer to browse on shrubs, but also feed on annual and perennial grasses and perennial forbs. Elk are capable of digesting much more coarse forage and in winter will browse on dried grasses and shrubs. Elk are also able to forage more effectively in deeper snow than mule deer.

Although certain habitat types essential to large numbers of wildlife species are known to exist in the Foothills, no comprehensive scientific evaluation of wildlife habitat has been completed for the project area. Therefore, in most cases, all parts of the Foothills that could be essential for the continued survival of a particular group of wildlife species have not been conclusively identified.



3. BACKGROUND ENVIRONMENT

The most extensive assessment of the Foothills to identify areas of significant wildlife habitat was undertaken for the *Boise Foothills Policy Plan* (City of Boise 1997). In the study report, IDFG identified areas with a combination of characteristics considered important for maintaining (and enhancing) many existing Foothills wildlife populations. These characteristics include south-facing slopes, elevations low enough to remain free of deep snows most of the winter, ridge lines that provide habitat for elk and mule deer, riparian areas, saddles, rock outcrops, and healthy stands of shrubs. Because of a lack of other data, many of the characteristics evaluated to determine habitat significance and identified in the *Boise Foothills Policy Plan* (City of Boise 1997) are those important to wintering big game animals. While these areas are undoubtedly important to other species groups, the assessment of Foothills wildlife habitat remains incomplete.

The results of an IDFG evaluation of big game winter range in the Foothills are shown in [Figure 7](#). This evaluation ranked or prioritized sections of the Foothills project areas according to the following biological information regarding the wintering mule deer and elk populations:

- The entire Foothills project area is considered big game winter range.
- Mule deer densities tend to be highest in the eastern Foothills and become less dense to the west. Elk densities are greatest at the higher elevations in the Foothills.
- Elk can tolerate a wider range of snow and temperatures on their winter range than mule deer.
- Winter range below approximately 4,500 feet is more critical to mule deer survival than winter range above this elevation.
- Because of the relative scarcity of surface water and because they facilitate wildlife movement, riparian zones associated with perennial and intermittent streams are essential components of Foothills big game winter range.
- Areas in which the vegetation is composed of predominantly shrubs and grasses are more important to wintering mule deer than areas composed of only grasses.
- Areas in which the vegetation is composed of predominantly perennial grasses and forbs are more important to wintering mule deer than areas dominated by annual grasses. The perennial grass and forb areas have greater shrub recovery potential.

Based on this information, the *Boise Foothills Policy Plan* divided the Foothills project area into eight big game winter range areas, each prioritized on a scale of 1 to 4. These areas are shown in [Figure 7](#) and their rankings are described as follows:

- 1st Priority
 - All riparian vegetation communities
 - East of 8th Street and below 4,500 feet in elevation
- 2nd Priority
 - East of 8th Street and above 4,500 feet in elevation
 - From 8th Street to Bogus Basin Road and below 4,500 feet in elevation
 - West of Bogus Basin Road and preferred elk winter range
- 3rd Priority
 - From 8th Street to Bogus Basin Road and above 4,500 feet in elevation
 - West of Bogus Basin Road and below 4,500 feet in elevation
- 4th Priority
 - West of Bogus Basin Road and above 4,500 feet in elevation

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Critical winter habitat areas for big game are south-facing slopes, ridge tops, saddles, riparian corridors, and areas below approximately 4,500 feet in elevation. Mule deer normally follow the snow line up and down the slopes to graze on shrubs, grasses, and forbs in the winter and spring. Areas containing well-developed sagebrush or bitterbrush communities or areas capable of supporting these vegetation communities are important for big game. Snow deeper than 14 to 18 inches for extended periods generally makes winter range unusable for mule deer.



In the eastern part of the Foothills, the Boise River WMA is managed by the IDFG to provide habitat for wintering populations of mule deer, elk, and other wildlife. The WMA and adjacent habitat is essential for the continued survival of mule deer that summer in the mountains north and east of Boise. Mule deer radio collared on the WMA during winter have been found in the mountains above Atlanta in summer, a straight line distance of about 60 miles.

Foothills streams, springs, and seeps are limited in number and location. In the relatively dry Foothills, surface waters are of primary importance to wildlife. In addition, Foothills gulches support a variety of other uses, such as agriculture, livestock grazing, urban development, and recreation. Some uses have degraded the quality of surface water resources. The most apparent problem has been the loss of riparian zones that protect streams and provide habitat for wildlife (Boise Community Planning and Development Department 1994). These riparian areas are found along many of the Foothills' gulches or drainages (see [Figure 5](#)).

As in much of the arid West, Foothills riparian areas and associated wetlands make up only a small portion of the landscape (about 2%) but support a tremendous diversity and abundance of wildlife. Riparian-dependent species have very specific habitat requirements, but their required habitats are also valuable to a large number of wildlife species that have less exacting requirements or that only use riparian habitats during a stage of their life cycle. Wildlife biologists estimate that roughly 80% of all animals use riparian areas at some stage of their lives. Additionally, this habitat can harbor from 2 to 10 times as many individual birds as does adjacent nonriparian vegetation (BLM 1998).

Higher quality riparian areas, primarily located in the longer and deeper Foothills gulches that support year-round streamflows during most years, are especially important to wildlife. These gulches, specifically Cottonwood Gulch, Hulls Gulch, and Dry Creek, support larger riparian zones and contain more water throughout the year. Riparian vegetation communities are ecologically important for wildlife, water quality, and flood control. The uses that have degraded riparian areas in the Foothills the most are grazing, recreation, and urban development (Moseley et al. 1992), but

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recent reports have indicated a general increase in the health of riparian areas in the Foothills (Scholten 2000).

Throughout the West, approximately 100 bird species and 70 mammal species can be found in sagebrush habitats (Trimble 1989). Some of these are sagebrush obligates (restricted to sagebrush habitats during the breeding season or year-round) or near-obligate (occurring in both sagebrush and grassland habitats (Paige and Ritter 1999). Foothills sagebrush habitats are included in the upland shrub communities shown in [Figure 5](#). Within the Foothills project area, sagebrush obligates include sage thrasher, pygmy rabbit, and sagebrush lizard. Near-obligates include lark sparrow, loggerhead shrike, and prairie falcon. These species rely on various sagebrush steppe habitats, where sagebrush is codominant with perennial bunchgrasses. Throughout much of the West, including the Foothills, the ecology of these habitats are threatened by invasion of nonnative plants, changes in fire regimes, development, excessive grazing, and agricultural conversion (Paige and Ritter 1999).

The interface between the forested and shrub vegetation communities along the Boise Ridge (see [Figure 5](#)) is used annually by migrating populations of raptors and neotropical birds. In 1993, scientists discovered that the Boise Ridge is part of a major raptor migration flyway. The Boise Ridge complex was identified as 1 of 12 major habitat areas for migrating birds of prey in the western United States by the Raptor Research Center at Boise State University. Scientific surveys by raptor biologists indicate the area is particularly important to sharp-shinned hawks, Cooper's hawks, goshawks, golden eagles, and American kestrels. The vast habitat edge formed by the juxtaposition of forests, sagebrush steppe, and grasslands along the north ridge of the Foothills provides an important mix of habitat types for resting, cover, and feeding areas.



Though not well documented, wildlife movement corridors in the Foothills are important in connecting noncontiguous habitats. Wildlife move along these corridors seasonally, daily, or irregularly to escape predation, avoid detection, or access additional sources of food, water, or cover. Although the information is incomplete, sensitive wildlife corridors are located within or adjacent to (typically within 100 feet [30.5 meters]) many of the riparian areas associated with perennial and intermittent streams that drain the Foothills project area (see [Figure 5](#)).

Movement of wildlife up and down the Foothills tends to be associated with riparian areas, talus slopes, ridgelines, and other feeding areas. Some corridors are very small, while others can be very large. The movement corridor for cottontail rabbits may be only 300 feet long, whereas yellow-bellied marmots have corridors from the burrow to the feeding area that are usually less than 100

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feet long. Beavers have corridors from the stream to feeding areas within the riparian area and sometimes to sites outside the riparian area, ranging from a few feet to several hundred yards. Resident (nonmigratory) mule deer use corridors from the Boise River to locations within the Foothills that are usually less than 0.25 mile long.

Increased urbanization, intensified recreational activity, and other uses within the Foothills have affected wildlife, in part, by disrupting wildlife travel corridors.

THREATS TO WILDLIFE

Potential impacts on or threats to Foothills wildlife are described below.

- Increased urbanization, intensified recreational activity, and other uses within the Foothills have affected wildlife and wildlife habitats. The impacts stem from habitat fragmentation, disruption of wildlife travel corridors, loss of key habitats and food base, reduced habitat diversity, and increased conflict with humans (Boise Front CRMP Report 1996).
- The Foothills have changed significantly over the last 30 years because of development and recreational use. While having many positive impacts, some of the changes have been viewed as destructive to the Foothills, to the wildlife, and to the quality of life in established neighborhoods at the base of the Foothills (Boise Front CRMP Report 1996).
- During a severe winter when food is scarce, mule deer in the Foothills are especially vulnerable to human disturbances. The basic mule deer winter survival strategy of minimizing energy expenditure can be upset by disturbance, leading to the loss of fetuses, and can ultimately lead to a deer's premature death.
- Mule deer have been displaced from areas of former winter range in recent years by the activities of recreationists. Hulls Gulch, Military Reserve and Council Springs have seen a drop in the number of wintering deer. Other areas may also have decreased functionality as winter range.
- Many recreationists use the Foothills for hiking, dog walking, cycling, bird watching, horseback riding and hunting. All of these uses have the potential to impact the quality of wildlife habitat. The time of year, time of day, and kind, and amount of activity all influence how much wildlife value an area has.
- Wildlife has also been affected by habitat fragmentation, leaving them with smaller areas to satisfy their needs for food, water, shelter, and space throughout the year. Habitat fragmentation results in a loss of ecosystem function and biodiversity.
- Multiuse concepts, habitat protection, education, and provision of contiguous habitat corridors and buffer zones around sensitive areas are strategies that can reduce the impact of humans on wildlife.
- Deer can be attracted by landscaping, which could result in damage to plants.
- Feeding deer or elk in an urban setting can result in injury to wildlife, pets, and people.

EXISTING MANAGEMENT POLICIES FOR WILDLIFE RESOURCES

The Agency Working Group referenced existing agency policies to develop objectives and recommendations for this 2014 Plan (see Goals, Objectives, and Recommendations). Similarities and differences among agency policies are described in this section across three topic areas: habitat

areas, wildlife corridors, and threatened and endangered species. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land. Instead, the recommendations offer an overarching direction for approaching wildlife in the Foothills as a whole. The table at the end of the chapter lists the agency policy statements related to wildlife.

HABITAT AREAS

The City of Boise, Ada County, and BLM have established policies that secure critical habitat from intrusion and protect it from urban and recreational development, resource extraction, and destruction (see [Table 12](#)). City of Boise has committed to protecting habitat using a variety of tools, such as acquiring open space and easements, planning, and zoning. Also, in its *Reserves Master Plan*, the Boise Parks and Recreation Department recommended many measures for protecting key habitat areas in the Military and Hulls Gulch/Camel's Back reserves. The following are a few of those measures. For more information, see the *Reserves Master Plan*.

- Prohibit swimming and human use in all ponds.
- Provide bridges to protect riparian-dependent habitat.
- Use fencing to restrict use.
- Use signs to educate users.

IDFG supports habitat protection that ensures the recreational uses of wildlife, while noting that diverse flora and fauna have intrinsic worth beyond hunting and fishing activities.

The City of Boise, Ada and Boise counties, IDL, IDFG, BLM, and USFS all recognize the critical role that habitat plays in maintaining and enhancing wildlife. Boise County relies on voluntary designation of easements and conservation efforts, while Boise City has established mechanisms for protecting wildlife. Typical city and county methods for protecting wildlife include corridors, open space acquisition, and protection of wildlife-dependent resources. All agencies coordinate with IDFG for management of key habitats and recognize the importance of the WMA. IDFG seeks the preservation and continued use of Idaho wildlife resources for sportsmen and other recreationists. BLM has developed policies for the regulated development and multiple uses of rangeland, water resources, and vegetation for game and agriculture. Notably, BLM policy allows development or other uses only in those areas not deemed as critical to the migration or life cycle of wildlife.

The City of Boise has adopted the policy of acquiring land to protect habitat and open space, particularly in the Foothills. Boise can use land trusts, conservation easements, serial levies, and other innovative means, as well as making planning and zoning requirements within the development process, to protect those lands. Ada County advocates preserving existing healthy trees and plant populations and minimizing development in or near critical wildlife habitat. Boise County encourages the voluntary designation of conservation easements, but provides no funding or guidelines for defining or protecting these easements. IDL advocates cooperation with IDFG for establishing policies for habitat and wildlife management. IDFG helps private landowners protect species and habitat and ensures that little private property is lost because of wildlife intrusion. IDFG's role is to perpetuate all wildlife. BLM requires that all development on BLM lands minimize obstruction to wildlife migration and not pose health risks to wildlife, particularly big game. All

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developments must be approved by BLM to ensure that wildlife and habitat connectivity are addressed in development plans. The USFS's goals are primarily for the augmentation of big game populations through the support and improvement of appropriate habitat.

WILDLIFE CORRIDORS

Wildlife corridors (linkage corridors) are routes that allow the free movement of wildlife to and from various habitat features, water, and food sources. City of Boise and Ada and Boise counties have each established policies for protecting wildlife corridors (see Table 13). City of Boise requires the conservation of sensitive habitat areas and the identification and preservation of wildlife corridors that connect these habitats. Ada County calls for cooperation with IDFG in identifying sensitive habitat and migratory corridors. Boise County encourages the voluntary designation of easements and areas for preservation. IDL relies on IDFG to describe necessary corridors.

THREATENED AND ENDANGERED SPECIES

BLM, IDL, and Ada County have published policies for protecting threatened and endangered species (see Table 14). Ada County recommends that encroachment of development into sensitive areas be minimized, while IDL requires coordination and proper management to ensure that federally listed threatened and endangered species are protected. BLM lists species of concern and identifies methods of protection such as those described in the *Cascade Resource Area Off-road Vehicle Management Plan*.

REFERENCES

POLICY DOCUMENTS

- Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.
- Boise Front CRMP Report. 1996. Report for the Cooperative Development of a Wildlife and Landscape Watershed Analysis for the Boise Foothills. Unfinished draft report.
- Bureau of Land Management (BLM). 1998. Areas of Critical Environmental Concern. Unpublished report. Boise District Office, Boise, ID. March.
- City of Boise. 2011. Blueprint Boise, Boise's Comprehensive Plan.
- City of Boise. 1997. Boise City Foothills Policy Plan. An amendment to the Boise City Comprehensive Plan. Boise, ID. March.
- EDAW, CH2M Hill, and Jensen-Belts Associates. 1996. Reserves Master Plan, Hulls Gulch/Camel's Back Reserve and Military Reserve. July.
- Moseley, R., M. Mancuso, and J. Hilty. 1992. Rare Plant and Riparian Vegetation Inventory of the Boise Foothills, Ada County, Idaho. Conservation Data Center, Nongame/Endangered Wildlife Program, Idaho Department of Fish and Game. Prepared for Boise City Planning and Zoning.

3. BACKGROUNDENVIRONMENT

Paige, C. and S.A. Ritter. 1999. Birds in a Sagebrush Sea: Managing Sagebrush Habitats for Bird Communities. Partners in Flight Western Working Group, Boise, ID.

Trimble, S. 1989. The Sagebrush Ocean. University of Nevada Press, Reno.

INTERVIEWS

Bottom, Ed. 2012. Wildlife Biologist, Idaho Department of Fish and Game. Personal communication to City of Boise, Foothills and Open Space Manager. August 1.

Gould,. 2000. Idaho Department of Fish and Game, Boise, ID. Personal communication to Jason Pfaff, Spatial Dynamics. June 20.

Rachel, John. 2000. Idaho Department of Fish and Game, Boise, ID. Personal communication to Jason Pfaff, Spatial Dynamics. June 20.

Zoellick, Bruce. 2000. Bureau of Land Management, Boise, ID. Personal communication to Micheal Wissenbach, Natural Resources Consulting. January 18.

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TABLE 12 WILDLIFE HABITAT

Agency policy statements about wildlife in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS
<p>Goal FH-CCN 6: Preserve the wildlife habitat and scenic values of the Foothills viewshed while providing for buildable slopes and base unit density. FH-CCN 6.1: CLUSTER DEVELOPMENT FOR HABITAT The practice of clustering of development and preserving open space shall be used to maintain environmental and wildlife features, such as wetlands, threatened plant species, riparian areas, big game winter range, and sensitive wildlife habitats. All open space credited for density bonus purposes (Figure 18) must remain in a primarily natural condition with the goal to maintain it for wildlife habitat and recreational</p>			<p>OBJECTIVE – Ensure the long-term survival of native fish, wildlife, and plants. p. 11</p> <p>STRATEGY – Provide information on the distribution, abundance, and conservation of native fish, wildlife, and plants. p. 11</p> <p>STRATEGY – Assist public and private landowners in the conservation, restoration, and enhancement of native fish, wildlife, and plants. p. 11</p> <p>STRATEGY – Collaborate with interested and affected parties to develop and implement plans to recover threatened and endangered species and conserve native fish, wildlife, and plants. p. 11</p> <p>OBJECTIVE – Increase the capacity of habitat to support fish and wildlife. p. 11</p> <p>STRATEGY – Assess and prioritize habitats for protection, restoration, or</p>		

3. BACKGROUND ENVIRONMENT

Boise City	Ada County	Boise County	IDFG	BLM	USFS
<p>uses. Open space areas shall be located to form continuous corridors subject to the review and recommendation of the IDFG within the mapped Wildlife Habitat Areas (Figure 19). Such areas may remain as private open space, may be used for public trail easements, or may be dedicated to a public land trust or other group for conservation management purposes, with preference given to public access recommended and implemented through the Foothills Ordinance.</p>			<p>enhancement. p. 11</p> <p>STRATEGY – Provide information, analysis, and recommendations to improve fish and wildlife habitats and reduce impacts from land and water use and development. p. 11</p> <p>Seek mitigation for adverse impacts on fish and wildlife, and associated recreation. p. 11</p> <p>STRATEGY – Acquire interest in property where Department management can provide exceptional benefits to fish and wildlife and associated recreation. p. 11</p> <p>STRATEGY – Work in cooperation with other agencies and local government to prevent the introduction and spread of invasive species. p. 11</p> <p>STRATEGY – Assess and prioritize habitats for protection, restoration, or enhancement. p. 11</p> <p>STRATEGY – Develop partnerships with</p>		

3. BACKGROUND ENVIRONMENT

Boise City	Ada County	Boise County	IDFG	BLM	USFS
			<p>landowners, land management agencies, and others to restore, enhance, and conserve fish and wildlife habitat. p. 11</p> <p>OBJECTIVE – Sustain fish and wildlife recreation on public lands. p. 13</p> <p>STRATEGY – Collaborate with land management agencies to provide a variety of recreational opportunities, manage access, reduce impacts and conflicts, and achieve objectives for recreation and fish and wildlife populations. p. 13</p> <p>STRATEGY – Provide fish- and wildlife- based recreation and fish and wildlife populations. p. 13</p> <p>OBJECTIVE – Maintain broad public support for fish and wildlife recreation and management. p. 13</p> <p>STRATEGY – Promote hunting, fishing, and trapping as legitimate uses of fish and wildlife compatible with the conservation of all wildlife. p. 13</p>		

3. BACKGROUND ENVIRONMENT

Boise City	Ada County	Boise County	IDFG	BLM	USFS
			<p>STRATEGY – Increase public knowledge and understanding of Idaho’s fish and wildlife. p. 15</p> <p>STRATEGY – Promote the use of Department facilities for fish and wildlife educational opportunities. p. 15</p> <p>Boise River WMA management priorities.</p> <p>Winter range for big game and year-round habitat for upland game birds to optimize production of game and nongame wildlife, and to provide for public hunting and other wildlife-based activities that are compatible with maintaining high quality habitat and hunting opportunities.</p> <p>Boise River WMA long-range management plan. (Bottum 2008 p. 5)</p>		

3. BACKGROUND ENVIRONMENT

TABLE 13 WILDLIFE CORRIDORS

Agency policy statements about wildlife corridors in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS

3. BACKGROUND ENVIRONMENT

TABLE 14 THREATENED AND ENDANGERED SPECIES

Agency policy statements about threatened and endangered species in the Foothills

Boise City	Ada County	Boise County	IDFG	BLM	USFS
			<p>OBJECTIVE – Ensure the long-term survival of native fish, wildlife, and plants. p. 11</p> <p>STRATEGY – Provide information on the distribution, abundance, and conservation of native fish, wildlife, and plants. p. 11</p> <p>STRATEGY – Collaborate with interested and affected parties to develop and implement plans to recover threatened and endangered species and conserve native fish, wildlife, and plants. p. 11</p>		

4. BACKGROUND—RESOURCE USE

4-1 RECREATION IN THE BOISE FOOTHILLS

Recreational opportunities in the Boise Foothills are abundant. Hiking, running, biking, and horse riding are just a few of the activities enjoyed by Foothills recreationists. However, recreational use, specifically on trails, has increased dramatically with the growth in the Treasure Valley. This increase requires new trailheads and trail opportunities, more trail and facilities maintenance, and enforcement of policies. The public now looks to land managers to provide additional recreational opportunities while maintaining the integrity of the natural environment. This section identifies the issues land managers face and provides a framework for consistent management for recreational use of the Foothills.

RECREATION IN THE BOISE FOOTHILLS

The Foothills offer a variety of recreational activities to the Treasure Valley's residents and visitors. The need for additional recreational opportunities has increased over the years - driven by the growth of Boise's population, increased visitation, new recreation equipment, and for many people, a greater sense of the importance of outdoor activity. While these activities are important for resident quality of life and the area's economy, increased recreational use can adversely impact Foothills resources. As stewards of the Foothills, managers must strike a balance between protecting the resources and providing the public with recreational opportunities. Managers and the public must understand how recreation affects the ecosystem it shares. Unmanaged recreation can degrade natural resources, create potential conflicts with private landowners, and clash with other values of the Foothills besides recreation.

Through the following topics, this section describes many of the recreational opportunities in the Foothills and related impacts. Hunting and trapping are presented separately in the next section of this 2014 Plan.

TRAILS AND TRAILHEADS

Recreational use of the Foothills has long been a topic of discussion between private entities, public landowners, and the broader community.

In the years following World War II, the military's use of the Foothills for training essentially ended and the lands came under administration of the newly minted BLM. The community, even then, recognized the value the Foothills would have as a place for outdoor recreation and discussions began about its possible future.

In 1959, a large fire burned a portion of the eastern Foothills, followed by heavy rains. Several debris flows brought a slurry of mud and rock into the neighborhoods of north and east Boise and what is now Harris Ranch. This event demonstrated the importance of a healthy watershed on Boise residents' health and safety. It also spurred the first large-scale multiagency effort to stabilize the watershed and led to construction of the trenches that are still seen today on Lucky Peak.

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During the 1960s, increased motorcycle use in the Foothills caused concern among landowners and homeowners. The Little family helped provide the first hill climb area – called Little Gem Motorcycle Park near Emmett – to focus the impactful activity in a designated area. The BLM also helped by developing the motorcycle parking lot off 8th Street and the associated motorcycle trails, limiting vehicles to a designated trail system.

Off-road use by 4x4 vehicles became a tremendous challenge and caused significant damage to the Foothills. The BLM again took action by establishing the gate on 8th Street and closing the upper reaches of the road during wet and muddy conditions. Off-road use impacts continued nonetheless and was part of the impetus in bringing landowners, citizens, and agency representatives together to help protect the fragile Foothills.

The Boise Front Coalition was formed in the late 1980s to address erosion, impacts from off-road vehicles and bogging, wildfire concerns, and livestock grazing. A number of projects were implemented that have had significant long-term benefits. The coalition's work resulted in a statewide Take Pride in Idaho award as well as the Chevron Award for Conservation Excellence – one of only five awards given out that year nationally. Land rehabilitation, trail planning, and education helped move protection of public and private lands to the forefront of community values.



One concept conceived by the Boise Front Coalition was the development of an integrated system of trails that would link the city with public lands. The proposal called for the agencies to work cooperatively with private landowners and developers to achieve formalized trail access, allowing for seamless management and maintenance of the Foothills trails. It also would allow landowners and agencies to direct recreational uses to the most sustainable trails, providing an opportunity to close, rehabilitate, reroute, or restore the poorly aligned trails. This trail planning effort was folded into a comprehensive countywide plan for bike lanes, recreation paved paths, and Foothills trails. “The Ridge-to-Rivers Pathway Plan” was adopted in 1993 and updated in 1998. Later ACHD took components of this 2014 Plan to create a bikeways plan and another group focused on the area along the river by writing the Boise River Trail Plan.

Concurrently, the agencies responsible for managing lands in the Foothills came together in 1992 and formed a partnership to collectively plan, implement, and manage an integrated trail system across jurisdictions. This effort, called the R2R partnership, focuses on trails within the Foothills and the Oregon Trail and provides for the pooling of limited resources. While the partnership involves a variety of participants, both informally and formally (through a MOU), the effort is primarily funded by the following agencies:

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- City of Boise
- Ada County
- BLM (Lower Snake River District)
- USFS (Boise National Forest)
- IDFG (nonfunding partner)

A signed MOU seeks the cooperation of all parties involved (see [Appendix B](#)).

The boundaries of public lands in the Foothills are changing today just as they have over the last century. As the various public agencies acquire or dispose of lands according to their respective needs, land ownership patterns change. The boundaries of public land ownership in the Foothills are undergoing one of the most sweeping changes to date due in large part to the City of Boise's Foothills serial levy conservation efforts. The participatory public agencies to this MOU have anticipated this outcome and have planned for the evolution of a coordinated management effort.

(Memorandum of Understanding, December 2010)

Discussions with various user groups and agency managers have indicated that the R2R partnership has taken great strides in planning, creating, managing, and repairing trails. This partnership's greatest strength lies in collaboration between the agencies, which requires constant communication, coordination, cooperation, and trust in working toward a common vision. R2R has had a coordinator since November 1992. The coordinator's office was housed with BLM Four Rivers Field Office staff near the airport, then later moved to the Jim Hall Foothills Learning Center (FLC) when it opened in 2005. R2R employs 2 full-time, 2 part-time, and several seasonal staff while also working with a team of 10 volunteer rangers that dedicates four hours per week during the peak use season to patrol the trails, report on trail usage, and talk with users about trail etiquette.

Since R2R's inception, new trails, trail access points, and trailheads have been constructed on private, city, county, and BLM land. The funds to build these trails often come from grant opportunities at the state level – the Recreational Trails Program administered by the IDPR.

Trails occur across private lands because an easement has been purchased from private landowners, the private landowner has provided a revocable trail easement, or the public is illegally trespassing. The easements require the trails to be featured on the R2R map, signed in a manner that makes the user aware they are crossing private land, and maintained. On occasion, R2R is asked to provide feedback on how and where trails may fit when multiunit Foothills development applications are submitted to the city and county.

Seasonal Use

Though the trails are less busy during winter months (December through March), the number of off-season trail users is growing. Most of the trail use during the winter months is concentrated in the lower Foothills where snow accumulation is infrequent. In heavier snow years, snowmobilers can be found in the area near the Boise Ridge Road, while snowshoers and cross-country skiers can be found in the lower Foothills. Most winter recreationists use Bogus Basin Ski Resort for downhill, cross-country and skate skiing, snowshoeing, and tubing, or they travel outside

the Treasure Valley for winter activities. There are no designated sledding hills in the Foothills due to the native shrubs dotting the hillsides.

When Foothills trails become muddy in the winter months, mountain bikers, hikers, and equestrians are encouraged to switch to roads, take a break from their activity, or use trails before 10 a.m., at which time the roads typically thaw out. In recent years, R2R has encouraged voluntary closures after 10 a.m. through trail signage, R2R and Boise City website postings, public service announcements, the Boise Foothills Trail Conditions Facebook website, trail ranger educational outreach, and peer pressure. Compliance with the voluntary closures ranges across the system. R2R has not established seasonal trail closures for wildlife (e.g., big game migration and nesting birds); however, recent surveys indicate trail users are open to the possibility. The Boise River WMA is closed by IDFG only during a severe winter.



Trail Use Designations

Trail use in the Foothills occurs on both roads and trails. R2R currently uses trail designations, a technique whereby specific use types are assigned to specific trails, to manage trail use. Managers have implemented the following trail use designations in the Foothills (see also [Figures 8 and 8a](#)).

Roads and Streets. These roads include established paved roads and streets where vehicles share the road with recreationists (such as Bogus Basin Road). Roads and streets typically provide access to designated trailheads and trail access points. In addition, many of these roads in the Foothills serve as good alternatives to muddy trails during the winter months. It is unlawful under Ada County code for a dog to be unleashed on any street or alley of the county. This includes the unpaved sections of Rocky Canyon Road, Mountain Cove Road, and Sunset Peak Road.



Primitive Roads. These roads include established gravel or dirt roads shared by all. These roads are usually maintained and provide access to trailheads and trail access points. Some recreationists use primitive roads as their primary trail experience because primitive roads are remote, scenic, and do not incur much vehicle use. These roads are subject to seasonal closures, such as Sunset Peak Road (8th Street Extension) and Rocky Canyon Road. Sunset Peak Road is gated seasonally to

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restrict full-sized vehicle use. The purpose of the restriction is to protect the roadbed when conditions are soft and vehicle use can cause road damage and erosion. Motorcycle use is allowed around the gate; however, this use is discouraged when roadbed conditions are soft. Nonmotorized use is also allowed past the gate.

In the past few years Sunset Peak Road has not been regularly maintained and its condition has deteriorated. Several sections may only be passable by high-clearance, 4-wheel drive vehicles due to large gullies. The road is under the jurisdiction of the BLM and road maintenance is dependent on available funding. Recent budget constraints have limited maintenance on this road. Current BLM plans are to bring the road to a minimum standard passable by most vehicles within two years. Shaw Mountain Road and Highland Valley Road are administratively closed to vehicular traffic by the IDFG from November 16 to April 30 to protect wintering big game.

Multiple-use 4-Wheel Drive Trails. These trails include primitive dirt trails that are not regularly maintained. These trails primarily provide multiple-use 4-wheel drive opportunities and other off-highway vehicle uses. Multiple-use 4-wheel drive trails within the WMA are administratively closed from January 1 to April 1. These trails may contain steep sections, rocks, or other obstructions that make them difficult for average cars. An example of this type of trail is Lucky Peak #8.

Multiple-use Trails for Motorized Vehicles. These trails provide recreation for motorized 2-wheeled vehicles and other users. Many multiple-use trails for motorized vehicles were developed in the 1970s and 1980s as an attempt to reduce impacts and provide motorized opportunities on a designated and maintained system. An example of this type of trail is Femrite's Patrol #6.

Multiple-use Trails for Nonmotorized Vehicles. These trails provide the bulk of recreation for all nonmotorized uses, including hiking, running, biking, and equestrian use. This trail use designation is the most common because it serves a broad range of experiences and user types. An example of this type of trail is Polecat Gulch Loop #81.

Pedestrian Only Trails. These trails provide recreation for pedestrians only. Pedestrian only trails are intended to provide a passive experience. An example of this type of trail is the Hulls Gulch Interpretive Trail #0.

Mountain Bike Only Trails. These trails provide recreation for mountain bikers only; pedestrians, motorized vehicles, and equestrians are excluded. Currently the system does not have this type of trail.

Dog Off-leash Trails. These trails allow for trail users to recreate with their dogs off-leash, within 30 feet of their owner, and under voice control. An example of this type of trail is Red Cliffs Trail #39.

Dog On-leash Trails. These trails provide opportunities for dogs on-leash and recreationists to enjoy trails together. An example of this type of trail is 15th Street Trail #41.

No Dog Trails. These trails allow those who want a dog-free trail experience (e.g., visually impaired, small children, and others) a place to recreate. Other reasoning for this type of trail may

be sensitive plant species (rare or riparian) or bird/wildlife population in need of minimal disturbance. An example of this type of trail is the Story Trail around the FLC.

ADA Accessible Trails. These trails are open to users of all abilities. They require certain design standards so as to comply with the Americans with Disabilities Act of 1990 (ADA). The slope, width, and surface of the trail must meet the standards for ADA design. An example of this type of trail is the Grove Trail #38.

ADA and Accessibility

While it is difficult to achieve accessibility to rugged trails for physically challenged individuals, opportunities do exist – especially for those with Electronic Personal Assistance Mobility Devices (EPAMD), the width of which does not exceed the managed width of the trail. Several of the R2R trails are wide enough to accommodate EPAMDs. The Ridge-to-Rivers Policy on Other Power Driven Mobility Devices lists a number of these trails, which include:

- The Grove Trail #48
- West Highland Valley Trail #11 **
- Homestead Trail #12 **
- Table Rock Trail #15 **Access from Terranativa Subdivision
- The Ponds Loop #21
- Toll Road #27A
- Crestline Trail #28
- Corrals Trail #31/Hard Guy #33 **
- Hulls Pond Loop #34
- Gold Finch Trail #35
- Red Fox Trail #36
- Owls Roost Trail #37

**These trails will require contacting R2R at 493-2953, as the user will need to borrow a key that will allow passage through the gate.

New Outdoor Area Accessibility Guidelines are currently under federal review. Upon approval, they will be published in the Federal Register as final accessibility guidelines for federal agencies (under the 1968 Architectural Barriers Act). These guidelines will be considered best practices for all public agencies (including nonfederal) and, along with the Forest Service Trail Accessibility Guidelines (FSTAG), provide the framework within which to develop and manage accessible trails.

Recreation Surveys

In the last four years, a trail user survey was conducted by volunteers on a Saturday at 12 trailheads for 12 hours. This survey is similar to one conducted in 2000. The number of trail users responding has ranged from 1,202 to 1,502. Users tend to be evenly split between males and females. The largest age range represented is consistently 31 to 40 years old. Mountain bikers have generally made up one-third of the users while the others have mostly been pedestrians (runners, hikers, and walkers). About 25% to 33% of trail users have dogs with them and most users are on the trails for 1 to 2 hours on a frequent basis.

Also in the user surveys, questions have been asked about designating certain trails for one type of use, directional use on trails by different users, alternating days and users on other trails, and closing trails for wet weather or protecting wildlife. Trail users have generally not supported the idea of alternating days or directional use, but the other management strategies have received resounding support. Overall, the majority (97% to 99%) of trail users find their time in the Foothills enjoyable.

Currently R2R manages 140 miles of trails. Table 15 shows the length of trails by type currently managed under R2R, distinguishing the length of the trails on public land from the length of trails on private land.

TABLE 15 TRAIL LENGTH BY TRAIL TYPE

Trail Type	Length of Trails on Public Land (miles)	Length of Trails on Private Land (miles)	Total Length (miles)
Primitive Roads	27.2	0	27.2
Multiple-use 4-Wheel Drive Trails	7.7		7.7
Multiple-use Trails for Motorized Vehicles	8.4		8.4
Pedestrian Only Trails	6.5	0	6.5
Multiple-use Trails for Nonmotorized Vehicles	123.7		123.7
Total			173.5

Private Property and Trail Easements

Some of the R2R trails in the Foothills cross private land. Because landowners do not know what the future holds for their property, they have been reluctant to provide permanent trail easements. As a result, revocable trail easements have been developed with many private landowners that outline the terms under which they are allowing recreational activity to occur. These agreements are between the landowner and either Boise City or Ada County, depending on the location of the trail.

The agreements allow for signage, posting the trail on the R2R map, assigning the same trail policies as the connecting trail unless the private landowner has other requests, and requiring maintenance to minimize damage to the land. Historically, as a parcel is slated for development, the trail is either removed permanently or realigned and integrated as part of the development. If the trail remains a part of the development, a permanent trail easement may be acquired by R2R if the trail still provides a regional connection. To make this process successful, the development team, agency representatives, and community come together in a cooperative and collaborative manner. Templates of a revocable trail easements are available from the R2R coordinator.

Conceptual Trails

To establish and maintain an interconnected trail system throughout the Foothills, proposed conceptual trail links have been identified. The proposed conceptual trail links are important for the following reasons:

- Removing recreation pressure from the Boise River WMA

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- Protecting Foothills resources through well-planned trails
- Adding variety and length to the current trail system
- Providing close to home trail opportunities for all Boise citizens
- Dispersing use across the planning area so no one area becomes too busy
- Reducing user conflicts

These trail locations are conceptual and must be reviewed individually as routes are considered for property acquisition/trail easements and for impacts on Foothills resources on a site-specific basis. Of the 22 conceptual trails listed in the 2000 Boise Foothills Management Plan (2000 Plan), 12 have been completed. The list below has been provided by the R2R coordinator and includes some conceptual trails from the 2000 Plan, but also adds others that are of interest (see Figure 8).

1. *Dry Creek Trail.* A user-created trail through this corridor already exists and is well used; however, there is no formal trailhead, the trail crosses several different private properties, the trail is not built sustainably, and the trail cuts through a valuable riparian area. Linking Boise Ridge Road with Bogus Basin Road through the Dry Creek area would provide another key link for the trail system.
2. *Eastside/Lower Stack Rock Connection.* This trail would provide a shorter trail connection to Freddy's Stack Rock Trail than is currently available from the trailhead at the Bogus Basin Nordic Lodge. The trail access would begin on the west side of Bogus Basin Road above the tree line and connect to Eastside Trail.
3. *Watchman – Freestone.* This is a nonmotorized version of the current Femrite's Patrol Trail #6. As opposed to the very aggressive route followed by Trail #6, this trail would provide a more contoured trail design, similar to the Watchman Trail.
4. *Seamans Gulch – Cartwright Road.* This would provide a critical link between two isolated trail systems in the western Foothills – the Seamans Gulch trails and the Polecat Gulch Reserve system.
5. *36th Street – Polecat Gulch.* This trail would link the Harrison Hollow trails to the Polecat Reserve, thereby further perpetuating an east-west trail connection across the Foothills.

Many of the above trails are located west of Bogus Basin Road. Managers see this area as an opportunity to provide the public with additional well-planned trails. A review of ownership patterns in this area indicates that most land is privately owned. Because new opportunities will not come without a price, agency managers must seek access agreements with private landowners and find new sources of funding for long-term maintenance.

Trail Conflicts

While most recreationists using the Foothills seem satisfied with their experiences, trail conflicts do occur, among different trail user groups and within the same trail user group. R2R partners recognize these trail conflicts as a potentially serious problem. However, if trail conflicts are addressed directly and openly among trail users, they can help strengthen trail constituencies and enhance outdoor educational and recreational opportunities for all trail users.

Prior to the establishment of R2R, the biggest trail conflicts were between motorized and nonmotorized vehicle users. Mountain biking has become increasingly prevalent and conflicts between mountain bikers and other users and among mountain bikers have increased, as well as between trail users with dogs off-leash and other users. Over the last few years, one of the questions on the annual trail user survey asks about overall enjoyment of the trail experience and

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as noted above, 96% to 99% of trail users surveyed state they have had an enjoyable experience. When users were asked in the 2012 survey about specific interactions, those with hikers/runners (97%), mountain bikers (94%), and other user's pets (89%) receive a range of positive feedback.

Managers are using many methods to reduce trail conflicts. These include adding trail etiquette signage on some of the heaviest used trails, providing a range of trail opportunities for all users, and working with trail users and trail user groups to raise awareness about proper trail etiquette.

Trailheads

Trailheads provide designated parking for accessing the R2R trail system and have kiosks to post educational information on proper trail use and updated R2R trail maps for reference. There are 18 trailheads with kiosks. Trailheads close to the urban environment are important since they are the last opportunity managers have to educate the public on the upcoming trail experience. Major trailheads are shown on [Figures 8 and 8a](#).

Other than established trailheads, there are also less formal trail access points in the Foothills. Trailheads generally have parking available on a designated site or on a designated section of road right-of-way. Many of the primary trailheads also have restrooms, trashcans, and doggy waste bags available. Trail access points provide entry into the Foothills from neighborhoods that might not have parking available. Some trail access points also have trashcans and doggy waste bags. The R2R staff services 43 trashcans weekly and in some cases more than once a week. There are several other trashcans that neighbors have installed to reduce the waste at trail access points in their neighborhoods. These secondary access points provide a valuable means for residents in adjoining neighborhoods to gain access to Foothills resources.

In 2009, R2R built a new maintenance shop on the former McCord property in Hulls Gulch Reserve adjacent to the FLC (completed in 2005). The shop and yard provide R2R with an office, trail maintenance activities staging site, and a storage location for equipment and vehicles.

Parking

Adequate parking is a challenge during peak use times at some of the more busy trailheads. Weekend and after-work use may force people to use on-street parking or to seek opportunities elsewhere. Areas of specific concern for overflow include Military Reserve and Hulls Gulch.

Horse trailer parking in the Foothills is limited. Steep terrain, narrow roads, erosive soils, and minimal pullout space make siting trailheads that can accommodate horse trailers difficult. Presently, horse trailer parking is available to the Grove, Miller Gulch, Freestone, and Cartwright trailheads. Many horseback riders continue to use private property in the Foothills for riding and access those properties from pullouts along roads.



Restrooms

Restrooms are currently provided at the Seamans Gulch, Miller Gulch, Lower Hulls Gulch, Upper Hulls Gulch, and Freestone Creek trailheads. Vault toilets are used in most cases due to their low maintenance needs and lack of sewer access nearby. A new vault toilet opened at the Polecat Gulch Trailhead at the end of July 2014.

PARKS AND OPEN SPACES

Parks and open space are often misconstrued as the same thing when in fact they are very different. The following definitions best describe parks and open space in relationship to the Foothills.

Parks

A park is planned primarily to provide active or structured recreational activities. These areas are usually developed with grass and play equipment for recreational enjoyment. In some parks, facilities for organized sports are maintained. These facilities are located close to Boise and do not reflect open space values as identified in the plan. However, these areas are ideal locations for educating users about Foothills resources and serve as a gateway into the Foothills. They include (see [Figures 8 and 8a](#)):



- Camel's Back Park, neighborhood park (13 acres) – North Boise
- Quarry View Park, neighborhood park (10 acres) – NE Boise
- Hillside Park, community park (12 acres) with sports complex and horse arena – NW Boise
- Stewart Gulch Park, neighborhood park (5.8 acres) – NW Boise
- Somerset Hills Park, neighborhood park (7.3 acres) – North Boise
- Fort Boise, community park (26 acres) – North Boise
- Foothills East, mini-park (0.88 acre) – NE Boise
- Aldape Park, mini-park (0.33 acre) – NE Boise
- Eagle Sports Complex (85 acres) – Ada County

Open Space

Open space is defined as land maintained primarily in its natural condition, with recreation uses potentially



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accommodated where they do not conflict with other natural resource values. Such lands provide opportunities to observe nature and obtain a higher level of solitude than is found in developed parks. Open space is usually owned or managed by a governmental agency, and some areas may not be readily available to the public due to the natural and cultural resources in need of protection. Lands in this category include wetlands, steep hillsides, sensitive wildlife or plant habitat, riparian corridors, and unique natural or cultural resources.

The 2000 Foothills Open Space Management Plan proposed a vision to ensure one of Boise's signature features, the Foothills, would continue to contribute to the region's high quality of life. As a follow-up to that plan, Boise voters supported a two-year serial levy in 2001 to raise \$10 million for Foothills land conservation efforts. The ballot language (see **Appendix**) outlined the funds would be used to protect water quality; preserve wildlife habitat; provide increased recreation areas for walking, biking, and other outdoor activities; limit overdevelopment and traffic; and protect natural vegetation that prevents mudflows and washouts.

The oversight for spending the funds was given by the mayor to the 12-member Foothills Conservation Advisory Committee. The committee and their staff and the City of Boise's Foothills and Open Space Manager were tasked with the prioritization of parcels, negotiations, partnering with other agencies, and leveraging funds. Since then, 10,500 acres have been conserved through acquisition, donation, conservation easement, and land exchange. Some of these lands have been added to previously established open space reserves. Others provide new connections and buffers to significant public land already owned by state and federal agencies. Following are descriptions of the City of Boise Open Space Reserves in the Foothills.

Camel's Back Reserve

The Camel's Back Reserve site is on the northeast side of Camel's Back Park. This land, along with the Camel's Back Park, was acquired by the city in 1932 from Bernard Lemp, a relative of a former mayor, John Lemp. The reserve portion of the park is approximately 63 acres. The park amenities include hiking and bike trails.

Castle Rock Reserve

Castle Rock Reserve, located in the Foothills behind Quarry View Park, is a 48.5-acre site in Boise's East End acquired in the mid- to late-1990s. Native Americans who once inhabited the Boise Valley are said to have gathered at a remote site, known as Castle Rock, in the Foothills where an outcropping of rocks dramatically jets out and touches the sky. At that time, nearby geothermal hot springs fed into small creeks and formed bathing ponds frequented by the Shoshone, Bannock, and Paiute tribes. The historically significant site features natural open space and R2R trails. The site is adjacent to the Table Rock trail system, which mostly lies on State of Idaho land.

Mesa Reserve

The 58-acre Boyer-Satz parcel on the southern bench below Table Rock was acquired as part of the serial levy. As part of the build-out of Warm Springs Mesa, the developer is dedicating several parcels to the city (a total of about 200 acres) over time.

Foothills East Reserve

Foothills East Reserve is a 30.4-acre natural area with trails and is in the northeast Boise Foothills neighborhood. The site was acquired in the 1970s when housing development was occurring in that area.

Hulls Gulch Reserve

Hulls Gulch Reserve is a 289-acre site north of downtown Boise at the base of the Foothills. This site was acquired through a communitywide citizen effort over a three-year period from 1991 to 1993. The initial parcel of land – 99 acres – was purchased in the early 1990s through a land trade with United Water, the parent company of Orida Investment Corporation. Additional acres were acquired through grass roots fundraising efforts, Boise City general funds, Federal Land and Water Conservation Fund dollars, donations from Orida Investment Corporation, and 2001 Foothills serial levy funds. The name "Hulls Gulch" comes from the ephemeral creek that runs from higher up in the Foothills through the middle of this property.



The reserve is home to two trailheads (Grove and Lower Hulls Gulch), which are the starting point for some of the 140 miles of R2R trails in the Foothills. Hikers, mountain bikers, dog walkers, runners, and horseback riders enjoy the trails in this area. Common wildlife seen throughout the year in Hulls Gulch include great horned owls, kestrels, coyotes, mule deer, and red foxes.

The reserve is also home to the FLC, operated by Boise Parks and Recreation. The FLC focuses on education and information about the Foothills and the surrounding high desert environment. The FLC is a place for learning by direct experience with the outdoors. The heart of the FLC program is school-age education, which offers a wide range of lessons for kindergarten through sixth grade students in their classrooms and at the center. Service learning opportunities for all ages and abilities, and special family and community events are also available year-round.

Military Reserve

The Military Reserve is approximately 479 acres reserved for several different uses. The reserve is in the northeast portion of the city. The amenities available in the area are an archery range, an old military cemetery, and trails. The land was purchased from the BLM by the city in March 1956. The access road and cemetery



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were then transferred to the city to ensure the maintenance for these areas.

The Military Reserve is comprised of natural terrain in the lower Foothills. Flowing through the reserve are sections of Freestone and Cottonwood creeks. From these creek valleys, hill masses rise on moderate to steep slopes to heights of 100 feet or more. The military cemetery is on a hillside approximately ½ mile east of the U.S. Veteran's Administration Hospital. Veterans of the Mexican War, Civil War, Indian Wars, and Spanish American War are interred at the reserve. Several civilian graves are also located at the reserve.

Adjacent to Military Reserve is the 260-acre Hawkins property, donated to Boise City in 2004, creating this larger Military Reserve complex of about 739 acres.

Noble Reserve

A 600-acre parcel around Five Mile Creek above Rocky Canyon Road and below Aldape Summit was donated to the city by Allen and Billie Dee Noble in 2003. This land covers a few prominent ridgetops in the east Foothills. The Nobles have allowed the public to access their land since they purchased it in 1972, thus it is popular with hikers, mountain bikers, and horseback riders.

The reserve is of historic significance as well because the old road from Boise to Idaho City passed through the property. Five thousand dollars from the serial levy funds were spent on land transaction costs.

Polecat Gulch Reserve

The Dry Creek Area/West Boise Foothills is one of the three priority areas identified for Foothills land preservation prior to the passage of the \$10 million Foothills levy in 2001. Polecat Gulch Reserve was created in 2002 with the acquisition from the Blessinger family of 120 acres. Subsequent additions include the purchase of 40 acres from Bluegrass LLC in 2005, 80 acres from Linda Dengler in 2005, a 360-acre BLM parcel acquired in 2008 via a land exchange, and 80 acres from Sterling Savings Bank in 2010, which included a 70-acre conservation easement previously donated to the city. In 2012, the city purchased 154 acres from Bank of the Cascades (formerly owned by Ramon Yorgason) to allow the public access from North Collister Road. A trailhead for the property was completed in July 2014.

The entire Polecat Gulch Reserve totals 834 acres and is comprised of various public lands between Cartwright and North Collister Roads. Polecat Gulch features 8 miles of trails, provides some amazing views of the Treasure Valley, and is home to mature vegetation that supports mule deer year-round and a substantial population of Aase's onion, a rare plant found in the Foothills. In 2007, a trailhead parking lot off Cartwright Road was built with a \$46,000 grant awarded by the Idaho Department of Parks and Recreation. There is currently a small 1930s home on the property where a caretaker lives.

Stack Rock Reserve

In 2010, the City purchased 1,320 acres near Bogus Basin Ski Area for \$1.32 million. Fred Alleman, a Boise citizen and avid R2R trail user, donated \$1 million toward the purchase. The property is about 9 miles from downtown Boise west of Bogus Basin Road in a forested area with steep slopes and old logging roads. The property primarily lies in Boise County and includes the

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prominent Stack Rock geologic formation. The reserve is a desirable destination for multiple recreational uses, including hiking, mountain biking, and rock climbing. Freddy's Stack Rock Trail is a new loop trail that meanders through the reserve. The loop trail connects with the current R2R trail system in the Shafer Butte area.

These areas present a unique opportunity to educate users about the natural environment, provide a place for outdoor exercise, and define our sense of place.

Hillside to Hollow Reserve

The Hillside to Hollow Reserve was created in 2013 with the acquisition of 260 acres with serial levy funds. The property is adjacent to Harrison Hollow, which is managed by Treasure Valley Land Trust.

Other Lands

Other agencies (IDFG and Ada County) have conserved lands in the Foothills that allow for some recreational users, but have established other priorities for the land.

OTHER RECREATIONAL USE

The following uses do not fit within a certain category but are other recreational uses of the Foothills.

Competitive Races

The R2R partners have historically not allowed mountain bike races in the lower and mid-Foothills. Mountain bike races represent a concentrated high-impact use and are generally seen as not compatible with the long-term goal of providing and maintaining quality sustainable trails in the Foothills. Trails in the lower and mid-Foothills already receive intense public use and are comprised largely of erosive sandy soils that generally do not hold up well to race impacts.



The R2R partnership has encouraged race promoters to work with Bogus Basin Resort and the Boise National Forest to host races on the R2R trails around Shafer Butte. Though impacts would still occur, these trails receive lighter use, and the soils on these trails would hold up much better to a race event than the soils found in the lower and mid-Foothills.

R2R currently permits two running races to be held on the R2R trail system annually. These events must comply with a specific set of conditions to be considered. Race promoters are required to submit detailed race proposals to R2R between November 1 and December 31 each year for consideration as one of the two races permitted the following calendar year. The R2R partnership

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does not process or consider any proposals received between January 1 and October 31. A couple of large running races occur in the Foothills, but they use established roads and not the R2R trail system.

The Owyhee Motorcycle Club has the only competitive motocross track in the Foothills. This nonprofit motorcycle club is located on private property.

Guiding

Guiding is controlled and licensed by the Idaho Outfitters and Guides Licensing Board. Trail guiding has occurred in the Foothills on occasion. Currently the USFS and BLM d have a permitting process for guides, while the City and County of Boise do not.

Hang Gliding and Parasailing

Historically, nonmotorized footlaunched flying (hang gliding and paragliding) occurred on Hammer Flat, a 700-acre lot near Lucky Peak and Crow Hill. In 2010, the city purchased this property from the landowner. Hammer Flat was then closed to the public for approximately one year to determine its wildlife habitat value. In March of 2012, the IDFG purchased this property from the city. The property is now part of the Boise River WMA. The IDFG has provided the Boise Area Footlaunched Flight Organization with a special use permit for their activities during a specific time of the year. This permit is limited to the current year, with a possibility of annual renewal, subject to any needed modification of terms.

Camping

Dispersed camping is allowed in the Foothills on BLM and USFS lands for up to 14 consecutive days. Overnight campers are encouraged to use "Leave No Trace" principles to minimize their impacts on the Foothills' sensitive natural resources. The BLM is considering making Rocky Canyon a "Day Use Only" corridor to reduce conflicts between various user groups and reduce the likelihood of wildfire starts in that area.

Party Spots and Homeless Activity

Party spots and homeless activity occur on both public and private lands in the Foothills. Most of the activity is found in areas with heavy woody vegetation, primarily the riparian zone. Though some sites have reoccurring issues, public land managers work with local law enforcement agencies and volunteers to identify and quickly clean up the debris at these sites to reduce the likelihood of an ongoing issue.

USER GROUPS

User groups identified in the Foothills are fragmented. Many of these groups are specific to a user type, volunteer efforts, or have a specific mission. The groups generally do not coordinate with each other on a regular basis and there is no regular list of users to whom Foothills land managers can contact for input. Recently, R2R created the Boise Foothills Trail Conditions Facebook site to better communicate with users on trail closures, maintenance concerns, volunteer efforts, construction projects, and new facilities. The following user groups have been identified as the most active in the Foothills:

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- SWIMBA (Southwest Idaho Mountain Biking Association)
- Y-Striders
- Hash House Harriers
- BAMBA (Boise Area Mountain Bike Association)
- Mountain West Outdoor Club
- Various meet-up groups that schedule regular outings on the trails
- Golden Eagle Audubon Society
- Idaho Hiking Club
- Various equestrian riding clubs
- Treasure Valley Trail Machine Association

THREATS TO FOOTHILLS RESOURCES

Use of the Foothills must balance the benefits of recreational activities with the protection of environmental resources. Specifically, unmanaged and unrestricted recreation can cause impacts on Foothills resources, as described below.

Off-road Use

Unmanaged off-road use is more prolific near Boise Ridge Road and is most apparent along primary roads (8th Street, Bogus Basin Road, Rocky Canyon Road, Highland Valley Road, Boise Ridge Road, and Cartwright Road). Both motorized and nonmotorized vehicles are used in these areas. Though all uses have potential to negatively impact the area, using motorized vehicles is the most damaging recreational activity in the Foothills. The size and power of these vehicles create substantial damage in a short time. Once damage is started, it is difficult to stop because it invites others to continue this type of use. The areas that receive most of this type of use are just off Bogus Basin Road and the Boise Ridge Road.

An Ada County ordinance prohibits the operation of motor vehicles on private lands without permission of the owner, and the federal agencies require operation of motorized vehicles on designated trails only (Ada County Development Services 1996; BLM 1990).

Agencies such as the BLM use signage, citations, fencing, and public service announcements to restrict off-road use. However, enforcement is difficult because of the limited staff.

When directly confronted, many of the users say they were unaware that their activity was either damaging to Foothills resources or illegal. Additional regulations, increased staff presence, better signage, and stronger penalties may be needed to reduce the damage being done.

Social Trails and Trail Widening

A single unmanaged trail has a rather low overall impact on the Foothills.



However, the cumulative effects of this type of trail across the Foothills can be extensive. “Social” trails created by users are prevalent in the Foothills, but are a bigger problem when located on steep slopes or within sensitive riparian zones. When these trails are located, R2R staff works with the agency or private landowner to close and/or reroute the trail. In many cases, social trails are the result of users seeking access to the managed trail system or deviating from designated trails for new recreational experiences. R2R staff spend much of their resources redirecting erosive trails and closing “social” trails using signage, fencing, and education.

Part of the enjoyment of trail use comes with the narrow or single-track experience of being on a trail versus recreating on a road. However, with more users comes trail widening as users want to walk, run, or bike side by side in the same direction; pass one another by going off-trail; and allow dogs off-leash to wander off and on the trail near their owner. R2R uses a few different techniques to reduce trail widening; planting shrubby vegetation alongside trails, posting closure signs on the ground, creating trail etiquette messages that speak to these concerns, and placing rocks in key locations.

Displacement of Wildlife

IDFG has indicated that pressure on wildlife is directly related to recreational use, dogs off-leash, vehicular traffic on roads, and new housing developments. These impacts include disturbing wintering big game and scaring nongame bird species during critical nesting times. Dogs off-leash, when accompanying trail users, increase the “zone of influence” of a trail. Dogs can disturb nesting birds and chase wildlife. Dogs must be leashed in city limits, except where permitted. They must also be leashed on the WMA year-round.

Increased human activity near the perimeter of the WMA and primitive roads, as well as motorized and nonmotorized vehicle activities in the WMA, has disturbed big game. Off-road vehicle use in the WMA compounds this problem. Currently, seasonal closure dates for motorized vehicles are observed on roads and trails in the WMA from November 16 to April 30. There have been discussions among agency staff of seasonal closures on certain trails that bisect high-priority wildlife habitat during winter months, but no policies have been enacted.

Rock climbing has potential to create direct and adverse impacts on the nesting activities and productivity of breeding raptors along the Black Cliffs just north of State Highway 21. The following species have been documented as using the Boise River Canyon cliffs as breeding habitat:

- Golden eagle (not documented since 2000)
- American kestrel
- Prairie falcon
- Red-tailed hawk
- Great horned owl
- Barn owl

The IDFG, the Bureau of the Reclamation, and the Boise Climbers Alliance (BCA) (a local nonprofit advocacy and stewardship group comprised of Treasure Valley climbers) have signed a MOU to maintain climbing access and protect nesting raptors and sensitive wildlife.

4. BACKGROUND RESOURCE USE

The BCA implements a seasonal raptor monitoring and protection program from February 1 until August 25. These efforts work to detect and document the presence of nesting raptors and to implement seasonal buffer zones that limit pedestrian and climber disturbances during the critical nesting season. Each year, starting February 1, buffer zones are erected to limit access to cliffs and climbing routes in previously documented raptor nesting territories until nesting activity areas can be verified or disproven. In areas with confirmed nesting raptors, buffer zones are maintained until all of the young have successfully fledged from the nest. After fledging, buffer zones are lifted until the next year.

The BCA raptor monitoring and protection program is currently advised and implemented by Dusty Perkins, a raptor biologist. Dusty maintains regular contact with IDFG staff regarding closures and monitoring efforts. The monitoring program is supported by a staff of volunteer observers and student interns that assist in monitoring the chronology and productivity of identified nests.

In addition to monitoring and implementing buffer zones, the BCA engages in regular public outreach and education via their website and social media outlets and by distributing brochures. The bulk of these efforts work to inform and educate the public about the importance of protecting nesting raptors, the role of raptors as ecosystem indicators, and how to report nesting raptors.

Soil Compaction and Erosion

Evidence of erosion is most apparent on trails where water is not adequately diverted. This problem is compounded where trails were not properly designed. Currently, a variety of techniques are used to get water off trails. Rolling water bars, drain dips, and outsloping are some of the techniques used for trail maintenance.

R2R staff agree that properly located, designed, built, and regularly maintained trails are the best way to provide sustainable trail opportunities and reduce the cost of ongoing trail maintenance.

Use of muddy trails in the winter and spring can intensify rutting and erosion, leading to an increase in the need for trail maintenance. Maintenance efforts have improved the stability of the trails, but these efforts are a never-ending and costly battle. Bikes, motorized vehicles, and equestrian activity can have the most significant impacts on muddy trails. The last few years, R2R has enacted voluntary closures on certain trails after 10 a.m. to discourage inappropriate use. In order to better alert users of trail conditions, R2R staff have posted information on their website and created a Boise Trails Conditions Facebook site to alert users of trail conditions on a daily basis. The present strategy is to discourage muddy trail use through education, signage, and public service announcements.



Dog Waste

Based on recent surveys, 25% to 30% of surveyed trail users have a dog with them. According to the surveys, some trail users think dog waste in the Foothills is fertilizer, not an environmental problem. However, carnivorous animals, such as dogs, do not produce useable manure-fertilizer for plants. Beneficial manure-fertilizer comes from herbivores. On the contrary, native plants in the Foothills are used to low-nitrogen soil and dog waste is high in nitrogen; therefore, high concentrations of dog waste (e.g., near trailheads) changes the soil chemistry and creates a micro-environment favorable to noxious weed species that thrive in nitrogen-rich soil. Also, 1 gram of dog waste contains 23 million fecal coliform, almost twice as much as human waste (van der Wel 1995). Fecal coliform along with strep, roundworms, salmonella, and giardia can all cause disease in other animals and humans. To create a baseline of data on the amount of dog waste in the Foothills, annually the last six years in February, sprinkler flags have been used to count piles of dog waste left on the ground at key trailheads (Table 16). The range of counts has varied from year to year and location.

TABLE 16 DOG WASTE COUNT

	Lower Hulls Gulch	Corrals	Table Rock
2008	141	115	82
2009	49	142	66
2010	92	109	50
2011	80	112	80
2012	41	82	106
2013	79	105	136

Fire

Fire has a direct impact on recreation. The 8th Street Fire in 1996 impacted many existing trails. The Hulls Gulch bridges were destroyed, and many other trails were not accessible until rehabilitation efforts were completed. Erosion intensified where trail users left R2R trails and traversed burned land. Since that fire, there have been several small (5 acres or less) fires on public lands in the Foothills. All of the fires closed a trail temporarily while the fire was extinguished. Some of the areas have been reseeded with native grasses and forbs.



The policy analysis for the recreation section describes current management policies for public lands in the Foothills. See [Tables 2 and 3](#) for each agency's policies for recreation.

NO INFORMATION ON AGENCY POLICIES, NO SUMMARY TABLE

REFERENCES

Ada County Code 5-7-6-b.

Ada County Development Services. 1996. Ada County Comprehensive Plan.

Ada Planning Association (APA). July 1998. Interim Foothills Transportation Plan.

Breuer, Tim. Land Trust of the Treasure Valley. February 2013 Personal communication to Julia Grant, City of Boise.

Bureau of Land Management (BLM), Boise District. 1990. Cascade Resource Area Off Road Vehicle Management Plan.

Bureau of Land Management (BLM), Partners in Flight. 1998. Birds as Indicators of Riparian Vegetation Condition in the Western U.S. BLM/ID/PT-98/004-6635. 4 pp.

City of Boise. 2011. City of Boise Comprehensive Park and Recreation Plan.

City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives, and Policies.

City of Boise. March 1997. Boise City Foothills Policy Plan. An amendment to the Boise City Comprehensive Plan. Boise, ID.

Colorado State Parks, Trails and Wildlife Task Force. September 1998. Planning Trails with Wildlife in Mind.

EDAW, CH2M Hill, and Jensen-Belts Associates. July 1996. Reserves Master Plan, Hulls Gulch/Camel's Back Reserve and Military Reserve.

Federal Highway Administration and National Recreation Trails Advisory Committee. August 1994. Conflicts on Multiple-Use Trails: Synthesis of the Literature and State of Practice.

4. BACKGROUNDRESOURCE USE

Moseley, R., M. Mancuso, and J. Hilty. 1992. Rare Plant and Riparian Vegetation Inventory of the Boise Foothills, Ada County, Idaho. Conservation Data Center, Nongame/Endangered Wildlife Program, Idaho Department of Fish and Game. Prepared for Boise City Planning and Zoning.

Muller, Krista. Idaho Department of Fish and Game. February 2013 Personal communication to Julia Grant, City of Boise.

Perkins, Dusty. Boise Climbers Alliance Stewardship Chair. March 2013 Personal communication to Julia Grant, City of Boise.

van der Wel, B. 1995. Dog Pollution. The Magazine of the Hydrological Society of South Australia. 2(1)1.

4-2 HUNTING AND TRAPPING IN THE BOISE FOOTHILLS

The Boise Foothills provide access to hunting for recreational and subsistence use. Information about the amount of sportsman use within the Foothills is incomplete, varying from one ownership to the next. Areas open to hunting include federal and state lands outside the city limits of Boise. Areas closed to hunting include Ada County lands, City of Boise lands, and all lands within the Boise city limits. Outside the city limits, hunting on private land is at the discretion of the landowner.

Hunting in Idaho is regulated by the IDFG. Hunters must possess the appropriate license, tags, stamps, and permits and must abide by state hunting regulations. Information from the Boise River WMA indicates the most popular animals to hunt in the Foothills are mule deer and upland game birds. The estimated number of big game and upland bird hunters and the number of animals harvested have fluctuated over the years. This fluctuation is influenced by early or severe winter weather, changes in hunting regulations, and changes in wildlife population densities.

The BLM estimates that 48,545 people participated in dispersed recreation on BLM lands in the Foothills during a one-year period in 1998 and 1999. Of these people, 365 (approximately 1%) were upland bird hunters. Hunters tend to concentrate close to the top of the Boise Ridge, near Boise Ridge Road, and within the forested lands of the Boise National Forest. Some hunting use also concentrates along Bogus Basin Road.

Increased urbanization and intensified recreational activity and other uses within the Foothills have created the potential for conflicts with hunters and hunting opportunities. These conflicts can result in unsafe conditions where hunting occurs fairly close to other recreationists and Foothills users.

HUNTING AND TRAPPING IN THE BOISE FOOTHILLS

HUNTING

Information about hunting within the Foothills is inconsistent from one ownership to the next. IDFG has fairly good information about the amount of hunting that takes place within the Boise River WMA at the eastern end of the project area. The IDFG considers hunting the top recreation priority in the WMA. The amount and type of hunting that takes place on private lands in the Foothills is unknown.

In general, the federal and state lands within the Foothills are open to hunting. These lands are managed by the USFS, BLM, IDL, and IDFG. Within the project area, lands closed to hunting include Ada County lands (concentrated in the Foothills project area), Boise City lands (including parks and reserves), and all lands within the Boise city limits (regardless of ownership). Although hunting is prohibited within the Military Reserve, recreational archery shooting is permissible.

Outside the Boise city limits, hunting on private land is at the discretion of the landowner. Hunting, with the permission of the landowner, undoubtedly occurs on some of the private lands within the Foothills, but other parcels are posted for no hunting.

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Although Ada County does not regulate or restrict where hunting can occur, it is a misdemeanor for any person to recklessly discharge a firearm, bow and arrow, or crossbow within the county. “Reckless” is defined as conduct that shows a willful and wanton disregard for the safety or property of others and that can cause bodily injury or death to people or domestic animals or damage the property of others.

IDFG regulates hunting of game animals in Idaho. All hunters must obtain the appropriate hunting license, tags, stamps, and permits from IDFG for the type of game they are pursuing. In addition, hunters must abide by state hunting regulations that, among other things, specify the legal seasons, times, methods of take, bag, and possession limits for game species. Some of the statewide regulations are listed below:



- Protected nongame species of wildlife include bison (buffalo), red squirrels, wolverines, chipmunks, golden-mantled and Idaho ground squirrels, pikas, kit foxes, migratory songbirds, and northern flying squirrels. All hawks, owls, eagles, and vultures are protected.
- All nongame birds in Idaho are protected except starlings, English sparrows, and feral pigeons. Protected nongame birds cannot be hunted, taken, or possessed.
- Coyotes, skunks, weasels, and jackrabbits are classified by Idaho law as predatory and unprotected wildlife. Other unprotected animals include marmots, fox squirrels, porcupines, and Townsend’s and Columbian ground squirrels. Holders of valid Idaho licenses can take these species in any amount year-round.
- No person may enter private land to hunt, fish, or trap without permission if the land is either cultivated or properly posted as “No Trespassing.” Proper posting means either legible “No Trespassing” signs, 100 square inches of fluorescent orange paint, or an entire fluorescent orange fence post every 660 feet around the property and at reasonable access points.
- It is unlawful to shoot from or across the traveled portion, shoulders, or embankments of any road maintained by any government entity.
- It is unlawful to hunt game from any motorized vehicle.
- Most hunting is limited to the period from one-half hour before sunrise to sunset or one-half hour after sunset.

Additionally, all federally listed threatened or endangered species are fully protected, and no hunting of these species is allowed. No listed species are known to occur in the project area.

The Foothills project area is part of IDFG’S big game Unit 39 and is included in a number of other annual hunting seasons. The primary hunting seasons that include the Foothills project area are listed in [Table 17](#), as well as the dates for these seasons from 1999 to 2000. The exact dates change from year to year, and the bag and possession limits and number of controlled hunt permits

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can also change. Occasionally, new hunting seasons are added or old hunting seasons are modified or removed by IDFG, depending on changes in wildlife populations, habitats, and public input.

Based on periodic hunter checks conducted by IDFG for the Boise River WMA, the most common animals hunted in the Foothills are mule deer and upland game birds, such as forest grouse (ruffed and blue), chukar partridge, gray partridge, and California quail (Scholten 2000). Other animals that provide ready hunting opportunities (such as elk, pheasant, turkey, rabbit, and hare) are also listed in Table 17. Although not widely pursued, open seasons that apply to all or a portion of the Foothills project area exist for hunting other animals. These animals include black bear, mountain lions, ducks, geese, badgers, bobcats, foxes, and raccoons. Hunters do not take advantage of these open seasons often because few opportunities for hunting these animals exist in the Foothills.



The only portion of the Foothills for which detailed information about the amount of hunting use exists is the WMA, managed by the IDFG. The WMA is composed of several segments, and only one of these segments, the Boise Front segment, is included in the Foothills project area. Estimates of hunter use and game harvest on the entire WMA are shown in Table 18. IDFG reports that approximately half of this use occurs on the Boise Front segment. These data show the estimated number of hunters and number of animals harvested fluctuates annually. These fluctuations are primarily influenced by such factors as early or severe winter weather, changes in hunting regulations, and changes in wildlife population densities.

Other sources of Foothills hunting information include the BLM and USFS. The BLM has conducted some surveys of recreational use of their lands that consist of observing and interviewing recreationists at several Foothills trailheads and other access points. Preliminary information from these surveys indicates that hunting is a minor component of the recreational use that takes place on BLM lands in the Foothills. The BLM estimates that 48,545 people participated in dispersed recreation on BLM lands in the Foothills during a one-year period in 1998 and 1999, and of this amount, 365 participants (approximately 1%) were upland bird hunters. The BLM data do not report other types of hunting.

Anecdotal information indicates that more hunting probably takes place closer to the top of the Boise Ridge and within the forested lands of the Boise National Forest (Fink 2000; Hagadorn 2000). The USFS is currently conducting an extensive survey of recreational use in the entire forest; results were available in summer 2000. However, observation of the use patterns in the forest indicates that big game and upland bird hunters tend to concentrate along Boise Ridge Road and in the forested habitats nearby (Fink 2000). It is likely the amount of hunting on Boise National Forest

land within the project area is significantly greater than that on BLM lands at lower elevations in the Foothills. In addition, some evidence suggests that hunting use is also concentrated along Bogus Basin Road (Scholten 2000), because this road provides ready access to lands open to hunting and because game animals can often be spotted by hunters traveling the road. Approximately 30 to 35 turnouts along Bogus Basin Road provide potential observation or access points.

FISHING

Fishing opportunities are limited within the project area. The U.S. Army Corps of Engineers (USACE) Robie Creek recreation site is the only public boating and fishing access in the project area.

However, anecdotal information indicates that some fishing might occur along upper Dry Creek where beaver dams have created small pools.



TABLE 17 PRIMARY HUNTING SEASONS ON THE BOISE FOOTHILLS (UNIT 39) PER IDFG HUNTING SEASON PAMPHLETS

Species	Type of Hunt and Number of Permits	Dates 1999-2000 Season	Notes
Deer	General, unlimited	Oct. 5-Oct. 31	Antlered only
Deer	General archery, unlimited	Nov. 16-Dec. 6	Either sex; Boise County only/Ada County closed
Deer	Controlled, 200	Aug. 15-Sept. 24	Antlered only
Deer	Controlled, 900	Oct. 5-Oct. 31	Antlerless only
Deer	Controlled archery, 100	Nov. 16-Dec. 16	Ada County only/Boise County closed; either sex
Deer	Controlled youth hunt in units 22, 31, 32, 32A, and 39	Oct. 5-Oct. 31	Either sex; hunters must be 15 years old or younger
Elk	General, A tag	Oct. 5-Oct. 14	Spike only
Elk	General, B tag	Oct. 15-Oct. 24	Antlered only
Elk	General archery, A tag	Nov. 16-Dec. 6	Boise County only/Ada County closed; any elk
Elk	General archery, B tag	Nov. 16-Nov. 25	Boise County only/Ada County closed; spike or antlerless
Elk	Controlled, 100	Oct. 15-Nov. 3	Antlerless only; north and west of Highway 21
Elk	Landowner permission controlled hunt, 400	Aug. 1-Nov. 15 & Dec. 7-Dec. 31	Antlerless only; west of Bogus Basin Road
Antelope	Controlled, 10	Sept. 25-Oct. 24	Either sex
Black bear	General, take	Sept. 15-Oct. 31 & Apr. 15-May 22	Females with young protected
Black bear	General, dog training	May 23-July 31	No harvest
Mountain lion	General, unlimited	Sept. 15-Mar. 31	Season may close early if harvest quota is met

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Species	Type of Hunt and Number of Permits	Dates 1999-2000 Season	Notes
Pheasant	General, unlimited	Oct. 16-Dec. 31	Roosters only
Forest grouse	General, unlimited	Sept. 1-Dec. 31	
California quail	General, unlimited	Sept. 18-Dec. 31	
Chukar and gray partridge	General, unlimited	Sept. 18-Jan. 15	
Mourning dove	General, unlimited	Sept. 1- Sept. 30	
Turkey	General, unlimited	Apr. 15-May 25	Bearded turkeys only
Cottontail and pygmy rabbit	General, unlimited	Sept. 1-Feb. 28	
Snowshoe hare	General, unlimited	Sept. 1-Mar. 31	
American crow	General, unlimited	Oct. 1-Jan. 31	

TABLE 18 ESTIMATED NUMBERS OF HUNTERS AND AMOUNT OF GAME HARVESTED ON THE BOISE RIVER WMA

Year	Estimated Number of Hunters				Estimated Harvest	
	Big Game Rifle	Big Game Archery	Game Bird	Total	Big Game	Game Birds
1980	300	50	1,500	1,850	27	5,000
1981	250	75	950	1,275	15	2,000
1982	250	200	400	850	16	1,200
1983	380	300	470	1,150	28	350
1984	765	500	265	1,530	87	350
1985	680	400	150	1,230	58	175
1986	750	300	350	1,400	91	450
1987	720	250	650	1,620	87	800
1988	665	200	525	1,390	61	630
1989	740	300	600	1,640	74	900
1990	1,075	300	800	2,175	115	2,200
1991	750	400	700	1,850	17	770
1992	1,560	250	400	2,210	193	400
1993	350	250	400	1,000	13	200
1994	475	300	600	1,375	24	500
1995	375	350	1,000	1,725	22	700
1996	425	350	100	875	18	900
1997	500	400	200	1,100	NA	800
1998	550	400	425	1,375	63	800

SHOOTING RANGES

No public shooting ranges are located in the Foothills, but a few law enforcement ranges do exist. The Ada County Sheriff’s Office built and operates their shooting range, centrally located on 15 acres, at the end of Goosecreek Road. The Ada County Sheriff’s Office and other local law enforcement agencies practice shooting a variety of targets at various times of the day and night.

Archery Range. Bow hunters in the Treasure Valley formed the Friends of the Treasure Valley Archery Park and have plans to construct a standing and walking archery range on approximately 200 acres of Ada County Landfill property. Plans include establishment of trails to guide users to each target (for arrow retrieval), a storage building, restrooms, staging area, and parking area.

HUNTING AND TRAPPING THREATS AND IMPACTS

The following factors can threaten sportsman opportunities in the Foothills.

INCREASED URBANIZATION

Increased urbanization and intensified recreational activity and other uses within the Foothills have increased the potential for conflicts with hunters and hunting opportunities. These conflicts might result in unsafe conditions where hunting occurs fairly close to other recreationists and Foothills users. For example, there are anecdotal accounts of motorcyclists unexpectedly encountering hunters on trails near the Boise Ridge Road (Dooley 2000).

Although such incidents have apparently occurred without further incident, unsafe conditions undoubtedly exist. The potential for such conflicts will continue to increase as developments move closer to hunting areas and as other forms of Foothills recreation and use grow in popularity.

Increased urbanization and intensified recreational activity has also resulted in impacts on wildlife and wildlife habitats. The loss of wildlife and their habitats also reduces the number and diversity of safe and successful hunting opportunities in the Foothills.



GRAZING LIVESTOCK

Potential for conflicts between hunting and livestock grazing in the Foothills also exist. Although uncommon, some livestock animals are mistakenly or maliciously shot in Idaho each year.

EXISTING MANAGEMENT POLICIES FOR HUNTING AND TRAPPING

The policy analysis for the sportsman use section describes current management policies for public lands and private development in the Foothills. The policy analysis and resource description were used to develop objectives (see Goals, Objectives, and Recommendations). This information will help the Agency Working Group and Boise Parks and Recreation Department establish guidelines for the responsible management of public lands and development in the Foothills. A summary of the policy analysis is provided below. The similarities and differences among policies are also described. For agency policy statements, see [Table 19](#).

SIMILARITIES

All agencies coordinate with IDFG to maintain healthy habitat for wildlife. Boise City, Ada County, and Boise County impose regulations on developers to protect the wildlife habitat. The BLM, IDL, and USFS all work with IDFG to designate open space to protect wildlife habitat (such as the WMA).

Ultimately, IDFG is responsible for viable populations of wildlife. All agencies coordinate with IDFG before undertaking a project in the Foothills.

DIFFERENCES

No differences in policy were identified.

REFERENCES

INTERVIEWS

Dooley, Mark. Boise Parks and Recreation Department. February 2000. Personal communication.

Fink, Laurie. Recreation Technician, Boise National Forest, U.S. Forest Service. February 2000. Personal communication.

Hagadorn, William. Outdoor Recreation Program Lead, Bureau of Land Management, Lower Snake River District. January 2000. Personal communication.

Scholten, Jerry. Boise River Wildlife Management Area, Idaho Department of Fish and Game. January 2000. Personal communication.

4. BACKGROUNDRESOURCE USE

TABLE 19 SPORTSMAN USE

Agency policy statements about sportsman use of the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Proposed development projects shall have wildlife habitat area studies prepared by qualified professionals and submitted with the project application for review by the IDFG, USFWS, and BLM. <i>21(2:4:1)</i></p>	<p>Critical wildlife habitat areas identified and mapped by the IDFG shall be designated as wildlife preservation areas. <i>35(p. 65)</i></p>	<p>Coordinate local plans with federal and state agencies.</p>	<p>IDL-managed lands are open to dispersed recreation, including camping, hunting, and fishing, unless the lands are covered by an exclusive use-type lease or unless resource damage concerns preclude the use.</p>	<p>All wildlife, including all animals, wild birds, and fish within the State of Idaho is hereby declared to be the property of the State of Idaho. It shall only be captured or taken at such times or places, under such conditions, or by such means, or in such manner, as will preserve, protect, and perpetuate such wildlife, and provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing, and trapping. <i>Idaho Code Section 36-103</i></p> <p>The department will support sport fishing, hunting, and trapping as traditional and legitimate uses of Idaho's fish and wildlife resource. <i>42(p. 4)</i></p> <p>The department will provide information on Idaho's hunting and fishing to identify recreational opportunities and to meet specific management goals. <i>24(p. 5)</i></p> <p>The department will seek to reduce illegal activities that result in the taking of fish and wildlife or which damage fish or wildlife habitat. <i>42(p. 5)</i></p> <p>Agreements with other agencies will be developed to ensure cooperative management of fish and wildlife resources shared in common. <i>42(p. 7)</i></p>	<p>Interseeding and reseeded projects with objectives to improve range condition to benefit wildlife and livestock will use shrub, forb, and grass seed mixtures that are normally found in that ecological zone. <i>34(p. 16)</i></p> <p>Habitat to support viable populations of all native and desirable ex wildlife species present in the resource area will be maintained.</p> <p>The BLM is responsible for managing wildlife habitat on public lands. The IDFG is responsible for managing wildlife populations. Consequently, the BLM will continue to coordinate its activities and actions with the IDFG. The IDFG will be given the opportunity to review and comment on any proposed land disposal or vegetation manipulation at least one year in advance of the planned action. Habitat management plans and cooperative agreements with the IFG as authorized by the Sikes Act will be the primary vehicles to implement major fish and wildlife management programs on public lands. <i>34(p. 17)</i></p>	<p>Improve the Elk Habitat Effectiveness Rating from 12 to 17 by the year 2000. <i>33(IV-p. 204)</i></p> <p>Improve wildlife winter ranges by planting 50 acres by the year 2000. <i>33(IV-p. 204)</i></p> <p>Improve wildlife habitat by constructing 10 water developments by the year 2000.</p>

4. BACKGROUNDRESOURCE USE

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
				<p>The department will strive to maintain continued hunting opportunities. <i>42(p. 15)</i></p> <p>Harvest regulations will be designed so post season populations maintain adequate numbers, sex and age structure, and distribution to remain biologically healthy. <i>42(p. 15)</i></p> <p>Regulations will be designated to provide a variety of hunting opportunities well distributed around the state, including a variety in timing of seasons, types of access, age structure and populations, and methods of harvest. <i>42(p. 15)</i></p> <p>The department will work closely with landowners in preventing or reducing damage caused by wildlife. <i>42(p. 15)</i></p> <p>WMAs will be managed to preserve and improve wildlife habitat; to provide hunting, fishing, and nonconsumptive recreation opportunities; and for educational and scientific purposes. <i>42(p. 15)</i></p> <p>OBJECTIVE- Maintain or improve game populations to meet the demand for hunting, fishing, and trapping. <i>(pg. 10)</i></p> <p>OBJECTIVE- Maintain a diversity of fishing, hunting, and trapping opportunities. <i>(pg. 12)</i></p> <p>OBJECTIVE- Sustain fish and wildlife recreation on public lands. <i>(pg. 13)</i></p>		

4-3 TRANSPORTATION IN THE BOISE FOOTHILLS

As development and recreation increase in the Foothills, so does the need for new roads and upgrades to existing roads. Variable topography, steep grades, erosive soils, and significant visual impacts severely constrain opportunities for new roads to meet these demands. In addition, Boise residents, specifically those in the north end, are concerned that increased traffic, hillside development, and transportation system improvements could have adverse effects on their neighborhood. Several major streets (36th Street, 15th Street, Harrison Boulevard, and Warm Springs Avenue) carry more traffic currently than they were originally designed for, which heightens property owners' concerns over safety, increased noise, more vehicle trips, and air pollution. Work needs to continue to find the right balance between the diverse interests of recreationists, developers, and residents.

TRANSPORTATION PLANNING IN THE BOISE FOOTHILLS

The Agency Working Group established a transportation goal for the *Interagency Foothills Management Plan*. Specifically, the goal states “Work with managing agencies to ensure the transportation plan complements the *Interagency Foothills Management Plan*.”

With this broad goal in mind, the following section describes the existing transportation system, identifies future road plans, analyzes transportation plans, reviews policies of the various signatories of the MOU, and identifies other transportation issues as they relate to management of the Foothills open space. This analysis divides the entire project area into three distinct planning areas that are consistent with those established by the *Interim Foothills Transportation Plan* and Ada County Highway District (ACHD) (see [Figure 9](#)).



- Western Foothills Planning Area—Includes lands west of Bogus Basin Road and east of State Highway 55.
- Central Foothills Planning Area—Bordered by Bogus Basin Road on the west and 8th Street on the east.
- Eastern Foothills Planning Area—Bordered by 8th Street on the west and State Highway 21 on the east.

PLANNING AREAS

Western Foothills Planning Area

The Western Foothills Planning Area is served by collector and arterial roads. This area is comprised largely of private land, including the Hidden Springs development (1,700 acres), the Ada

4. BACKGROUND RESOURCE USE

County landfill (2,700 acres), and Polecat Gulch Reserve (834 acres). Primary roads in this area include State Highway 55, Dry Creek Road, Seaman Gulch Road, Pierce Park Lane, Cartwright Road, and 36th Street. This planning area continues to have new developments stretching east along Dry Creek and Cartwright Roads from Hidden Springs. Upgrading or reconstructing and realigning some of the roads will be needed over time. Roads slated for construction, reconstruction, or realignment include the extension of 36th Street to Cartwright Road and eventually to Bogus Basin Road within the next 20 years. The ACHD five-year work plan outlines the intersection at Hill Road and State Highway 55 (2013); and Hill Road, 36th Street, and Catalpa (2017) are to be rebuilt.

R2R now manages 4.5 miles of trails at Hidden Springs, 8 miles of trails at Polecat Gulch, and 6.8 miles of trails near Veterans Cemetery, Seaman Gulch, and the Eagle Sports Complex. These trails have drawn more cyclists to the roads in the Western Planning Area. Bike commuters and training road cyclists are frequent users of these roads as well.

Central Foothills Planning Area

The Central Foothills Planning Area is the only area with significant land outside Ada County. The northern boundary of the project area wraps around Bogus Basin Resort and includes lands under the jurisdiction of Boise County. The land ownership is mixed in this planning area. The public lands are owned and administered by the USFS, IDL, City of Boise, and BLM. Public roads in this area include Bogus Basin Road, Boise Ridge Road, and 8th Street/Sunset Peak Road. Bogus Basin Road provides access to Bogus Basin Resort and destinations to the north within the Boise National Forest. During the summer and fall, Boise Ridge Road carries primarily 4-wheel drive traffic between Bogus Basin Road and Rocky Canyon Road. Boise Ridge Road and 8th Street/Sunset Peak Road are both gravel roads that provide access to trailheads and national forest lands. 8th Street/Sunset Peak Road is closed seasonally to reduce impacts on the roadbed in the winter and early spring. ACHD maintains Bogus Basin Road and lower 8th Street, and the USFS maintains Boise Ridge Road as a Maintenance Level II road (for high-clearance vehicles). No ACHD capital improvement projects are scheduled for this area in the next 20 years.



R2R now manages about 44 miles of trails in the Camelsback, Hulls Gulch, and Central Foothills Planning Area. Mountain bikes frequent lower 8th Street and Bogus Basin Road as they travel to trailheads. Road cyclists enjoy the challenge of Bogus Basin Road from spring until late fall. In 2010, an 8-mile stretch of lower Bogus Basin Road was dedicated and signed as the Kristin Armstrong Bikeway after hometown Olympic gold medalist Kristin Armstrong.

4. BACKGROUND RESOURCE USE

In 2002, ACHD worked with representatives from the City of Boise, BLM, and the Boise National Forest to find a solution to the ongoing maintenance issues of 8th Street/Sunset Peak Road. ACHD had hoped to pave the road to reduce safety hazards, maintenance costs, air pollution, and erosion. However, the city and others were concerned that paving the road would lead to cars traveling at faster speeds through Halls Gulch Reserve and putting recreationists in danger. In the end, Soil-Sement was added to the road for \$13,000 and subsequent coats will be applied annually. This is considerably less than the almost \$30,000 per year ACHD was spending to maintain the dirt road.

Eastern Foothills Planning Area

The Eastern Foothills Planning Area is bordered on the west by 8th Street/Sunset Peak Road and on the east by State Highway 21. Roads in the area include Warm Springs Avenue, Rocky Canyon Road, Table Rock Road, Highland Valley Road, and State Highway 21. Rocky Canyon Road, a north-south road, is gravel and one lane. It was part of the original Toll Road between Boise and Idaho City. It is the only road in this area that provides access to Boise Ridge Road, destinations in the Boise National Forest, and the Robie Creek area of Boise County. Spring brings runners to the road as they train for the Robie Creek Race (a half-marathon) held every April. Every summer high-clearance vehicles and mountain bikers frequent the road as they access 12.9 miles of R2R trails in Rocky Canyon.

Mountain Cover Road in Military Reserve is another road in this planning area, but it is managed by the City of Boise Parks and Recreation Department, which also owns and manages Military Reserve. The road is graded on average twice a year. Since 2008, when the City of Boise Police Department acquired the shooting range at the end of Mountain Cover Road, the road has received regular use by squad cars as well as recreationists and inholding neighbors.

The Eastern Foothills Planning Area includes a large amount of publicly owned land, including parcels administered by the USFS, BLM, IDFG, and USACE. This area supports significant numbers of wintering big game and includes both the Boise Front Area of Critical Environment Concern (ACEC), as designated by the BLM, and the 36,000-acre Boise River WMA, which is administered by the IDFG. Concern for wintering big game and increased erosion can lead to a seasonal closure of East Highland Valley and Council Springs Roads.

IDFG has 32 years of big game mortality data along State Highway 21. Since 1996, annual collisions have resulted in more than 100 mule deer and 5 elk deaths per year, with some harsher winter years exceeding 200 dead animals. In 2007, a collaborative working group called the Boise River Wildlife Linkage Partnership (the partnership) was formed. The mission of the partnership is to actively seek mitigation solutions within the State Highway 21 and Warm Springs Avenue corridor that will maintain habitat connectivity and effectively reduce wildlife-vehicle collisions. In 2010, ITD completed construction of a wildlife underpass and a portion of the wildlife exclusion fence using funds from the American Recovery and Reinvestment Act of 2009. Since it was installed, just a couple of collisions resulting in dead mule deer have occurred. New signage warning travelers about the presence of migrating big game and tallying the annual number of mule deer collision deaths have been installed along the corridor as well.

The Eastern Foothills Planning Area also has R2R trails; therefore, occasionally mountain bikers are seen along Warm Springs Avenue as they travel to access the trails. The Greenbelt runs parallel to Warm Springs Avenue in this planning area, but most road cyclists prefer to ride along the narrow shoulder of Warm Springs Avenue toward Lucky Peak Dam. Vehicle trips continue to increase in the Barber Valley area, with the establishment of a new East Junior High School and new residential developments within Harris Ranch and River Heights. Barber Valley households are projected to increase from 550 in 2009 to 4,462 in 2025. More housing will result in more vehicles on the road, thus more mitigation measures will be needed to ensure the safety of both the traveling public and migrating wildlife in this area. ACHD has no capital improvement projects outlined for this planning area in the next 20 years.

TRANSPORTATION PLANS

The following is an overview of the various plans guiding the transportation system in the Foothills. Elected officials, citizens, and planners use these plans in evaluating transportation issues associated with specific development proposals in the Foothills.

Interim Foothills Transportation Plan

The Ada Planning Association (APA) Board (now the Community Planning Association of Southwest Idaho or COMPASS) accepted the *Interim Foothills Transportation Plan* for distribution on July 20, 1998. This plan, a required component of the *Boise City Foothills Policy Plan*, is a survey of the existing transportation system and recommends changes to the Communities in Motion 2035 Plan (*the COMPASS long-range transportation plan*) for system improvements relative to the Foothills. Although still titled the *Interim Foothills Transportation Plan*, it is the plan of record for the Foothills transportation system and has been adopted by the City of Boise and ACHD. The tenants of the plan are based on a number of assumptions about land use. Those assumptions were derived from an analysis of existing comprehensive plans and zoning ordinances pertaining to the Foothills, including the *Ada County Comprehensive Plan and Zoning Ordinance*, the *1997 Boise City Comprehensive Plan (not Blueprint Boise)*, the *Foothills Policy Plan and Zoning Ordinance*, and approved but unbuilt developments.

Over the last decade, some changes have been made to the Foothills transportation system, which include the following.

Western Foothills

- Upgrading of Cartwright-Dry Creek Road from a rural road to a minor arterial from State Highway 55 to where the 36th Street extension.
- Upgrading Seaman Gulch Road from a rural road to a minor arterial from Hill Road to Dry Creek Road.

Eastern Foothills

- Extending a new collector from Park Center Boulevard bridge to Warm Springs Avenue near the Harris Ranch development

For trails, the *Interim Foothills Transportation Plan* encourages the preservation and development of a public trail system connecting neighborhoods, public parks and lands, schools, and shopping and employment opportunities where possible. The plan also mandates compliance with the *Ridge-to-Rivers Pathway Plan* and 1997 *Boise City Comprehensive Plan* requirements for trails within new developments. Finally, the plan encourages public acquisition and maintenance of public trails and access to public lands from public roads or trails routed around or through Foothills developments.

Communities in Motion 2035 Regional Long-Range Transportation Plan for Ada and Canyon Counties

The Communities in Motion 2035 Regional Long-Range Transportation Plan for Ada and Canyon Counties (or Communities in Motion 2035) provides regional transportation solutions for the next 20-plus years. The plan evaluates projected population and employment growth, current and future transportation needs, safety, financial capacity, and preservation of the human and natural environment. Communities in Motion offers a vision for land use, known as “Community Choices” and addresses the way land use affects transportation, how investments in transportation influence growth, what an ideal transportation system can achieve, how transportation projects are selected, and how transportation projects serve regional needs.

The plan was developed by COMPASS and adopted by the COMPASS Board of Directors in September 2010. The plan is being adopted by local governments and ACHD so that it can be implemented by those agencies through such tools as ACHD’s Five-year Work Plan Program, design policies, comprehensive plans, and zoning ordinances. Road corridors highlighted in Communities in Motion 2035 that fall within the Foothills planning area include State Highways 21 and 55, both of which are only scheduled for minor safety investments. The plan also encourages the protection of open space in Chapter 3 as a way to reduce need for new or improved transportation systems. Chapter 9 of the plan addresses protection of both natural and cultural resources.

Boise River Trails Coalition Plan

The Boise River Trails Coalition has a vision of a connected system of paths on land and water on and near the Boise River from Lucky Peak Dam to the Snake River. The coalition is made up of a cross-section of Treasure Valley citizens and representatives of cities, counties, and nonprofit organizations. In 2009, after two years of meetings facilitated by a Rivers, Trails & Conservation Assistance Program grant from the National Park Service, the coalition created the Boise River Trails Coalition Plan. The goals of the plan are:

- Create a land and water trail system that will be supported by community participation.
- Design connected paths for community walking, bicycling, horseback riding, bird watching, river paddling, fishing, and other nonmotorized outdoor activities.
- Connect community trail networks with alternative transportation routes.
- Respect the rights of private landowners and the wishes of donors to the path system.
- Promote the health and wellness benefits of Boise River Trails to Treasure Valley residents and visitors.

4. BACKGROUND RESOURCE USE

- Provide educational opportunities and interpretation of the natural and cultural resources along the land and water trails.
- Promote the economic development of Boise River communities through partnerships, programs, and facilities.

Ridge to Rivers Trail Management Plan

R2R anticipates it will expand the current 140-mile Foothills trail system by another 50 miles over the next 10 years. A R2R Trail Management Plan is needed to review some of the current management strategies and policies, demographics, uses, and concerns and determine the long-term direction of the R2R system. Since funding is not currently available to contract the creation of such a plan, R2R staff are in the process of applying for several grants with hopes the plan will be initiated in 2014.

Cascade Resource Area Off-Road Vehicle Management Plan

The *Cascade Resource Area Off-Road Vehicle Management Plan* applies to the Cascade Resource Area and was adopted by the Boise District of the BLM in August 1990. The plan seeks to “achieve multiple-use objectives for the protection of wildlife, watershed, vegetation, livestock, paleontologic, cultural, and scenic resources as defined in the 1987 *Cascade Resource Management Plan*, while ensuring the continuation of opportunities for motorized off-road vehicle recreation.” To achieve that goal, the plan creates three land classifications for motorized off-road vehicle use. The classifications are *open designation*, *limited designation*, and *closed designation*. The open designation allows for intensive or extensive use with no special restrictions in areas with no significant resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. The limited designation is used to meet specific resource management objectives and could restrict the number or type of vehicles, the time or season of use, permitted or licensed use, the existing roads or trails used, the designated road and trails used, or other factors to meet resource management objectives. The closed designation restricts all vehicle use to protect resources, promote visitor safety, and reduce user conflicts.

The Foothills contains both a limited designation and a closed designation. The Boise Front ACEC applies to approximately 12,000 acres of public land in the eastern Foothills and limits vehicle use to designated roads and trails to minimize watershed disturbance and allows seasonal closures to protect wintering mule deer. Snowmobile use is unrestricted. The Hulls Gulch National Recreation Trail in the central Foothills includes 5 acres and is closed to all off-highway vehicle (OHV) use to protect recreational values.

Boise Front Area of Critical Environmental Concern

ACECs are established through the planning process, as provided in the Federal Land Policy and Management Act, for “...areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes; or to protect watershed values and critical winter

range for 4,000 to 6,000 mule deer.” The erosion caused by OHV use and how it affects the watershed is of particular concern.

The following are management guidelines from the Critical Concern Report that affect transportation in the Foothills:

- Limiting motorized and nonmotorized vehicle use to designated roads and trails.
- Closing Highland Valley Road and Shaw Mountain Road to motorized and nonmotorized vehicle use from December 15 to May 1.
- Closing the upper portion of 8th Street to all motorized vehicles during the wet winter months.

The following activities will receive management emphasis to further protect resource values:

- Closing and rehabilitating certain roads and trails.
- Maintaining and reconstructing existing roads and trails.
- Restricting future rights-of-way to ensure minimal erosion and visual intrusion.
- Suppressing fires.
- Rehabilitating burned areas.
- Installing water-control structures to reduce erosion.

Land and Resource Management Plan for the Boise National Forest

The Boise National Forest is responsible for maintaining Boise Ridge Road. The road is classified as a Maintenance Level II road and is maintained for high-clearance vehicles. The USFS is undertaking a comprehensive study of all Maintenance Level I and II roads, but there are no immediate plans to modify or upgrade the existing road beyond the routine maintenance schedule.

ISSUES/CHALLENGES FOR TRANSPORTATION

Recreational use issues associated with the Foothills transportation system include access, air quality, erosion and sedimentation, trespassing, and effects on wildlife and sensitive plants.

ACCESS

The primary function of the Foothills transportation system is to provide access to trailheads and trails, Bogus Basin Resort, Boise National Forest, and public and private lands. Given the large amount of private land and the highly variable topography in the Foothills, access is a key issue. Roads are difficult to build and expensive to maintain because of the topography and the nature of the soils and hydrology in the area. Private landowners require roads to develop their land and public land users require public roads to access recreation facilities in the Foothills. Problems associated with increased use multiply with improved access and include trespassing on private land, dumping and vandalism, increased erosion, illegal camping, and disturbance of sensitive wildlife and plant species on all Foothills land. In addition, inadequate parking facilities at trailheads can cause on-street parking, create conflicts between motorists and recreationists, and affect public safety.

AIR QUALITY

Dirt and gravel roads increase the amount of airborne particulates, which reduces air quality. Impacts on air quality can be reduced by paving roads or treating the surfaces with a binding agent that keeps the particles from becoming airborne (see section above about 8th Street). Pavement is durable but expensive, increases erosion, and allows higher vehicle speeds. Binding agents are less effective and durable than pavement, but they are significantly less expensive and do not increase vehicle speeds or runoff.

EROSION AND SEDIMENTATION

Soils in the Foothills consist primarily of coarse, weathered granites that are highly erosive, even when undisturbed. Disturbance of the natural plant cover that binds soils in place increases erosion and stream sedimentation. Poorly built or maintained roads, unrestricted OHV use, and unrestricted bike and foot traffic create or intensify erosion and sedimentation problems in the Foothills. Mitigation of these problems can be expensive and is one of the primary issues associated with increased use in the Foothills.

During field investigations, evidence of erosion was most apparent where water was diverted off roads. Heavy runoff diverted to concentrated areas and then formed gullies that, in some cases, were more than 15 inches deep. While the entire project area was not reviewed, this type of erosion is evident along all major roads in the project area, including 8th Street, Rocky Canyon Road, and Bogus Basin Road.



TRESPASSING

Trespassing is an issue for both private landowners and public land managers. Private landowners deal mostly with unauthorized use by recreationists, including OHVs, hikers, and mountain bikers. Trespassing on public land is usually associated with people who use an area that is closed. Unauthorized use of private land disturbs vegetation and can therefore increase erosion and sedimentation. Unauthorized use also increases the difficulty of obtaining valid trail easements for public use.

WILDLIFE AND SENSITIVE PLANT IMPACTS

A large portion of the eastern Foothills has been designated an ACEC by the BLM, and sensitive plant species occur in both the western and central Foothills. These sensitive plant species include Aase's onion and Mulford's milkvetch. Impacts on sensitive plants can include habitat destruction

by invasion of exotic plant species and trampling of individual plants by recreationists. In addition, wildlife is affected by habitat destruction and disturbance during the critical winter period when energy reserves are low and food is scarce.

EXISTING MANAGEMENT POLICIES FOR TRANSPORTATION

The policy analysis for the transportation section describes current management policies for public lands and private development in the Foothills. The policy analysis and resource description were used to develop objectives and recommendations (see Goals, Objectives, and Recommendations). This information will help the Agency Working Group and Boise Parks and Recreation Department establish guidelines for the responsible management of public lands and development in the Foothills. In addition, the plan will suggest best management practices for private landowners. A summary of the policy analysis is provided below. The similarities and differences among policies are also described. For agency policy statements, see [Table 20](#).

SIMILARITIES

All agencies recognize the importance of the transportation system for moving vehicles and pedestrians through the Foothills safely and efficiently. Boise City and Ada County have similar policies that require coordination with the ACHD before construction of any new road. Boise City and Ada County have adopted the *Interim Foothills Transportation Plan* and *Destination 2020 Regional Transportation Plan for Ada County* for identifying the sites of new road improvements.

All agencies seek to use roads as an alternative transportation system for bikes and pedestrians and to link open space and other public areas. In all cases, agencies limit use to designated trails and roads only. People can be cited for unauthorized off-highway use.

DIFFERENCES

Boise City and Ada County look to the *ACHD Development Policy Manual* for traffic management, maintenance, and improvement information. Federal agencies have specific standards for planning and maintaining roads.

Both the BLM and USFS have policies that closely consider wildlife and watershed resources in planning, maintaining, or closing roads. Boise City and the county agencies do not have specific policies to protect Foothills resources. In most cases, city and county agencies support growth and development with new roads. State and federal agencies support public and recreational use through the development and maintenance of new roads.

REFERENCES

- Ada County Development Services. 1996. Ada County Comprehensive Plan.
- Ada Planning Association (APA). 1996. Destination 2015 Regional Transportation Plan for Northern Ada County.

4. BACKGROUNDRESOURCE USE

Ada Planning Association (APA). 1996. Ridge-to-Rivers Pathway Plan. Revised edition.

Ada Planning Association (APA). July 1998. Interim Foothills Transportation Plan.

Boise County. 1999. Boise County Comprehensive Plan.

Bureau of Land Management (BLM), Boise District. 1990. Cascade Resource Area Off-Road Vehicle Management Plan.

Bureau of Land Management (BLM). 1999. Boise Front Areas of Critical Environmental Concern.

City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives, and Policies.

City of Boise. March 1997. Boise City Foothills Policy Plan. An amendment to the Boise City Comprehensive Plan. Boise, ID.

U.S. Forest Service (USFS). April 1990. Land and Resource Management Plan for the Boise National Forest.

TABLE 20 TRANSPORTATION SYSTEM

Agency policy statements about the transportation system the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Development applications shall include traffic impact analysis <i>21(1:2:6)</i></p> <p>Provide efficient, cost-effective, and environmentally sound transportation, infrastructure, and public services. <i>21(1:2:6)</i></p> <p>The transportation system will provide access between residential areas, centers of employment, retail activity, and services. <i>21(6:1)</i></p> <p><i>0611</i>—New developments must locate adequate streets, sidewalks, bicycle paths, and bus stops to promote interconnectivity (i.e., public safety and emergency services). <i>21(6:1:1)</i></p> <p>All Urban Density Development must have emergency access. <i>21(6:1:2)</i></p> <p>Streets will be engineered to ACHD standards. <i>21(6:1:3)</i></p> <p>Growth minimizes impacts on traffic systems and protects quality of existing neighborhoods. <i>21(6:2)</i></p>	<p>Policy 8.1-1: Meet the basic mobility needs of the community.</p> <p>Policy 8.1-2: Increase the efficiency and safety of the transportation system.</p> <p>Policy 8.1-6: Preserve the integrity of the built community and other traffic-sensitive areas by reducing transportation impacts.</p> <p>Policy 8.1-7: Continue to improve a safe nonvehicular system; including pedestrian, equestrian, bicycle pathways, and trailheads. Ada County will work with surrounding entities in planning, implementation, and maintenance.</p> <p>Policy 8.1-12: Support alternative public and private sector funding opportunities for transportation investments.</p> <p>Policy 8.1-19: Consider the future transportation needs of the community as expressed in the Destination 2015 Regional Transportation Plan in the siting of all public improvements.</p> <p>Policy 8.1-25: Require new developments that generate the need for transportation improvements as a condition of development approval in accordance with the requirements of the Ada County Highway District.</p> <p>Goal 8.2: Support development of a diverse transportation system for safe movement of people and goods.</p> <p>Policy 8.2-1: Support a local transportation system connected to all modes of the regional transportation system.</p>	<p>Goal—To facilitate the safe, efficient, and economical movement of people and commerce within the county while recognizing the unique rural environment and lifestyle. <i>27</i></p> <p>Encourage the completion of the mapping of existing recreation trails in the county. <i>27</i></p> <p>Find ways to have out-of-county users help pay for services/transportation. <i>27</i></p> <p>Encourage the state legislature to look at options and changes in the state law to allow the county to do so. <i>27</i></p> <p>Trail maintenance should be funded by users (snowmobile facilities and trails should be encouraged). Fees collected should be appropriated to areas of recreational uses. <i>27</i></p> <p>County might research building trail facilities if fees can be charged to support these costs. Research other funding options such as use of “vendors.” <i>27</i></p>			<p>The Boise District will continue its ongoing program of identifying and obtaining BLM access across non-bureau lands where needed to accomplish bureau objectives. <i>33 (p. 13)</i></p> <p>All roads will be rehabilitated by outsloping, waterbarring, or seeding. <i>33(p. 28)</i></p> <p>Roads will be closed in crucial wildlife areas. <i>33(p. 28)</i></p> <p>Motor vehicles are limited to designated trail and roads only. <i>33(p. 7)</i></p> <p>Road construction will be limited and evaluated on a site-specific basis. <i>33(p. 7)</i></p> <p>Boise Front Area of Critical Environmental Concern</p> <p>Management guidelines limiting resource use pertaining to transportation include:</p> <p>Limiting motorized and nonmotorized vehicle use to designated roads and trails; Closure of Highland Valley Road and Shaw Mountain Road to motorized and nonmotorized vehicle use from December 15 to April</p>	<p>Objective: Manage for wildlife security by reducing the maximum open road density in each compartment to 1.0 mile per square mile by the year 2000. (see table p. <i>206, Land and Resource Management Plan for the Boise National Forest</i>)</p> <p>Assess public access, wildlife security, and watershed protection needs prior to a new travel map. <i>33(IV-42)</i></p> <p>Provide an up-to-date travel map that clearly displays current travel opportunities and limitations. <i>33(IV-42)</i></p> <p>Where travel opportunities must be limited to enhance resources, such as wildlife, watershed, or fisheries, meet this need by placing restrictions on new roads.</p> <p>Avoid additional</p>

4. BACKGROUNDRESOURCE USE

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>The City's preferred methods include ACHD's Development Policy Manual to minimize impacts through project modifications, traffic management, and street improvement. 21(6:2:1).</p> <p>The traffic management strategies to be used include: 21(6:2:2)</p> <p>a. Limit new development b. Tie new development to Traffic Improvement program (TIP) c. Use traffic-calming techniques d. Capture Trips w/ Service Commercial Centers in new projects e. Reduce trips with alternative travel methods (e.g., bikes, pedestrian, and transit). 21(6:2:2)</p> <p>Define arterial and collector framework for evaluation of eligible development. 21(6:3)</p> <p><i>Boise City Comprehensive Plan, Destination 2015: Regional Transportation Plan...21(6:3:1)</i></p> <p>Extend 36th Street to Cartwright Road and on to Bogus Basin Road as primary arterial. 21(6:3:2)</p> <p>Extend 36th Street to Cartwright Road and on to Bogus Basin Road. 21(6:3:3)</p>	<p>Policy 8.3-1: Encourage residential and non-residential developments to provide adequate easements for future pathways.</p> <p>Policy 8.3-2: Encourage a continuous network of pedestrian and bicycle pathways linking neighborhoods, parks, schools, open space, and commercial areas.</p> <p>Policy 8.3-4: Provide pedestrian crossings with signals, signs, and markings where necessary.</p> <p>Policy 8.3-6: Adopt the Ridge-to-Rivers Pathway Plan.</p> <p><i>Destination 2015 Regional Transportation Plan for Northern Ada County</i></p> <p>Destination 2015 provides a long-range transportation framework through which transportation needs can best be met. The plan was adopted by the APA Board in February of 1996 and was subsequently adopted by the Ada County Highway District and the other member of the APA. The 2015 plan is currently undergoing revisions for adoption as the Destination 2020 plan. Those revisions have been adopted by the COMPASS Board in July of 1999 but none of the members of COMPASS have yet adopted the 2020 plan. Changes or additions to the 2015 plan that pertain to the Foothills transportation system include:</p> <p>Redesignation of Cartwright Road from the proposed 36th Street extension to Dry Creek Road from a collector to a rural arterial;</p> <p>Redesignation of Dry Creek Road from Cartwright Road to Highway 55 from a collector to a rural arterial;</p>				<p>1; and Closure of the upper portion of 8th Street to four-wheeled vehicles during the wet winter months;</p> <p>The following activities will receive management emphasis to further protect resource values:</p> <p>Closure and rehabilitation of certain roads and trails; Maintenance and reconstruction of existing roads and trails; Restriction of future rights-of-ways to ensure minimal erosion and visual intrusion; Full fire suppression; Rehabilitation of burned areas; and Installation of water-control structures to reduce erosion where needed.</p>	<p>closures or restrictions of existing arterial and collector roads, whenever possible. 33 (IV-42)</p> <p>inform and include USFS users prior to implementing changes in travel opportunities.</p> <p>Encourage public input from a broad range of individual users and user groups. 33(IV-42)</p> <p>Standardize (forestwide) the beginning and ending dates for seasonal restrictions.</p> <p>Coordinate travel planning and management with adjacent landowners and land managers to ensure compatibility. 33(IV-42)</p> <p>Use separation, signing, or other mitigation as means of minimizing conflicting travel uses. 33(IV-42)</p> <p>Prepare a travel map.</p>

4. BACKGROUNDRESOURCE USE

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Pursue concept of Foothills Loop Road near Cartwright Road between Highway 55 and 36th street. <i>21(6:3:4)</i></p> <p>Secondary or emergency access via interconnectivity between Table Rock Road and Warm Springs Gulch. <i>21(6:3:5)</i></p>	<p>Redesignation of Seaman Gulch Road from Hill Road to Dry Creek Road from a collector to a minor arterial; and</p> <p>Amendment of the functional classification map to reflect the consolidation of two collectors into a single new collector in the Warm Springs Gulch area.</p>					

4-4 SOLID WASTE MANAGEMENT IN THE BOISE FOOTHILLS

The Solid Waste Management Department is responsible for managing the waste disposal needs of the citizens of Ada County. This department oversees operation of the Hidden Hollow Sanitary Landfill and manages the land surrounding the landfill. Because of prudent planning by the Board of Ada County Commissioners, in 1984 Ada County purchased 2,200 acres of land in the Boise Foothills for landfill purposes. By 2003, the area had increased to 2,655 acres. With this amount of land under the county's jurisdiction, the board ensured that space for waste disposal was available to county residents for the foreseeable future.

Landfill operations change the characteristics of land and its ability to be used for other purposes. Modern landfills are essentially a mountain-building exercise. Depressions are filled and valleys become hills. Topographical features are forever altered.

Operational considerations of the landfill will conflict with much of the plan.

SOLID WASTE MANAGEMENT IN THE BOISE FOOTHILLS

Federal law requires that the landfill be covered at the end of each operating day with a minimum of six inches of soil. This proved beneficial to the department's operations because each cubic yard of cover soil excavated created a cubic yard of air space for waste disposal. In 1992, the landfill ceased lateral expansion and instead of expanding out, the landfill began its ascent. No longer was each yard of cover material creating a yard of air space. This change meant that a source of cover material had to be found that was close to the landfill. So, within the county's property, excavation of cover material began. This excavation changes the visual characteristics of the Foothills around the landfill.



With the end of lateral expansion, the landfill increased its vertical height. The landfill soon crested over the tops of the surrounding hills. Until the landfill reaches its designed capacity and is closed, the landfill will be visible from much of the Boise Valley.

Because the Board of Ada County Commissioners purchased a very large parcel of land for solid waste disposal, the citizens of Ada County thought there would be enough landfill space to last many years. The landfill property is particularly suited for its designated use. The large parcel offers an added benefit to the landfill by preventing residential development from occurring immediately adjacent to the fill site. This buffer zone helps reduce complaints about the landfill.

Even though the landfill property is publicly owned, it is not intended for public recreational use. Although modern landfills are much safer than old burning dumps, hazards are still associated with waste disposal. To eliminate conflicts between Foothills recreation users and landfill operations, the entire landfill property is fenced and posted against trespass.

4. BACKGROUNDRESOURCE USE

As the current landfill nears capacity, plans for a new landfill on the county's property are being prepared.

Numerous regulations from the federal level to the state and local levels govern landfills. Imposition of additional requirements for aesthetic and recreational purposes would affect long-range plans and efforts, including efforts to maintain reasonably priced solid waste disposal.

The Ada County landfill is unique in its purpose and the services it provides. Many years ago, the county made long-term decisions about where it intended to dispose of its waste. Over the years, Ada County's intended use of the property has not changed.

4-5 CULTURAL RESOURCES IN THE BOISE FOOTHILLS

Cultural resources—sites, structures, and cultural landscapes—provide an unwritten record of human occupation of an area. These properties reflect human activities over time, from Native American use of the Boise Foothills area to early European-American settlement to modern development. Cultural resources tell the story of the area: variations in the climate, changes in plant and animal resources, and ways in which humans lived on and moved across the landscape.

CULTURAL RESOURCES IN THE BOISE FOOTHILLS

Human artifacts can tell a great deal about the society, climate, art, and foods used by people during certain periods. According to records at the Idaho State Historic Preservation Office (SHPO), the Foothills are scattered with cultural resources that range from artifacts several thousands of years old to historical roads and disappearing agricultural buildings and residences of early European-American settlers.

Early people have left rock alignments and stone flakes and tools. More recent people have left military ammunition, food cans, containers, and other garbage. There are fruit trees, building foundations, mines and quarries, and roadbeds from the historic period. From earliest settlement and use to the present, areas of the Foothills have been used as burial sites. Current residents are putting their own cultural stamp on the landscape: a landfill, roads, recreation trails, power lines, flood-control structures, and houses.



No one document contains a good summary and analysis of the archaeology and history of the Foothills because most of the project area has not been professionally surveyed for historic properties. The cultural resource information that is available is scattered throughout several reports at the SHPO. This report gives a brief overview of the SHPO, the organizations with primary responsibility for cultural resources in the Foothills. Included is a summary of the SHPO's processes for reviewing cultural impacts of federal projects and a listing of designated historic places.

IDENTIFICATION OF HISTORIC PROPERTIES WITHIN THE PROJECT AREA

Only a fraction of the total acreage within the Foothills has been formally surveyed for archaeological and historic properties. The most comprehensive survey was conducted by a federal interagency team following the 1996 8th Street Fire. This investigation focused primarily on public

lands. Other surveys include small project-specific work completed by federal agencies and an Ada County survey (Davis and Bauer 1989).

Through this work, more than 130 archaeological and architectural sites across the Foothills have been recorded. The site records are housed at the SHPO. A majority (more than 100) of these sites are archaeological properties with locations that cannot be disclosed, as required by Idaho's Public Records Law, the National Historic Preservation Act, and the Archaeological Resources Protection Act. Therefore, the specific locations of archaeological properties cannot be included in this, or any other, public document. However, this document can list the types of sites present as well as sites that have been listed on the National Register of Historic Places. Site types include:

- Historic sites associated with military use
- European-American homesteads or early settlements
- Native American sites

Sites on the National Register of Historic Places

Old Penitentiary. The Idaho State Historical Society operates the Old Penitentiary at the base of the Foothills. The penitentiary was built as a territorial prison in 1870, before Idaho became a state. The prisoners built additional buildings; many of these buildings were constructed with sandstone quarried from Table Rock. In addition, the prisoners raised produce and animals for food (Sevy 1995). The quarry and remnants of a canal, which ran along a contour from about the Diversion Dam to the penitentiary site, are two of the historical sites outside of the walls but are associated with the former prison (King 2000).

Trails lead from the Old Penitentiary into the Foothills. The Idaho Botanical Garden now occupies, through a lease with the Idaho State Historical Society, part of the prison yard and maintains an extensive interpretive program. In spring 2000, interpretive signs about the geology of the area were installed along the trail from the Old Penitentiary into the Foothills (Swanson 2000).

Dry Creek Rock Shelter. Using radiocarbon dating, this shelter was estimated to have been used about 3,500 years ago. The shelter is on private land and is not accessible to the public.

Fort Boise Barracks/Military Reserve. The Boise Barracks were originally occupied by the U.S. Army in 1863, were formally established in 1873, and were used for military activities through World War II. By 1927, targets for the 75mm guns had been erected in the Foothills with firing



4. BACKGROUND RESOURCE USE

batteries located near the entrance to what is now Skyline Drive. In addition, the Boise Rifle and Pistol Club used a building near what is now the Boise Police Shooting Range in the Military Reserve.

The Boise Barracks consist of two areas: the main post and a watershed area totaling 7,955 acres. The post area (440 acres) contained all of the facilities to support the former barracks (Penguilly 2012). Today, the post area includes the U.S. Veterans Administration Hospital, a federal building, the state veterans home, Ft. Boise Park and a portion of Military Reserve both owned by the City of Boise, the post cemetery, and other buildings.

In 2002, a removal action was implemented for an area that includes the historic primary target impact area for the 75mm artillery training. The removal action was a surface clearance and a subsurface clearance on different portions of the Military Reserve. No live items were recovered during the surface clearance and one unexploded ordnance (UXO) item, a 75mm projectile, was blown in place during the subsurface clearance.

In 2010, the Seattle District of the USACE conducted the first five-year review of the Boise Barracks. The purpose of the five-year review was to determine if response actions implemented at the site continue to minimize explosives safety risks and remain protective of human health, safety, and the environment. New signs educating users about UXOs were posted on several R2R trails and a couple of trailheads. Before any new trails are built in this area or excavation work is undertaken, the USACE has agreed to do a surface and subsurface survey of the project area (USACE 2011).

Schick/Ostalasa Farmstead. Located within the Hidden Springs housing development, the Schick/Ostalasa Farmstead is comprised today of a farmhouse and six outbuildings. It has some of the oldest buildings in Ada County and may be the oldest intact farmstead. Construction on the house began in 1864. Other structures, now historic, were added from 1870 to the 1930s. Residents of Hidden Springs formed the Dry Creek Historical Society to fund the site's National Register of Historic Places listing and rehabilitation of the farmhouse and its setting. The farmstead is still standing due to the community's vigilance and interest in its history. The site is now owned by Ada County and is managed by the Dry Creek Historical Society.

IDAHO STATE HISTORIC PRESERVATION OFFICE

The SHPO, a division of the Idaho State Historical Society, is the lead historic preservation agency in Idaho. Established in 1971 by the National Historic Preservation Act of 1966, the SHPO fulfills a variety of functions to identify, evaluate, register, and protect Idaho's historic properties. These functions include managing the National Register of Historic Places program; providing federal tax incentives for commercial development of historic properties; coordinating Certified Local Governments, education, surveys, and Section 106 review. The Section 106 review process provides a local voice for history in federal project planning. In meeting all of these responsibilities, the SHPO works closely with federal and state agencies, local governments, tribal governments, citizen groups, and property owners. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on properties listed (or

eligible for listing) in the National Register of Historic Places. In the Section 106 review process (36 CFR 800), the SHPO advises federal agencies on:

- How to complete the review process.
- The identification and significance of historic properties in Idaho.
- Ways to avoid or mitigate effects on historic properties in Idaho.

Historical significance of a property is determined by applying criteria established by the National Register of Historic Places. Administered by the National Park Service, the National Register of Historic Places is the official list of the nation's cultural resources that are worthy of preservation.

THREATS TO CULTURAL RESOURCES

In the Foothills, the following factors can threaten cultural resources:

- Housing development can cause land-disturbing activities and encroach upon archaeological sites and historic structures.
- Both existing and proposed roads and trails can disturb cultural resources.
- Unauthorized trail and off-road use can damage cultural resources.
- Erosion caused by human activities can expose cultural resources to disturbance and weathering.
- Wildfire may damage or lead to vandalism of cultural resources.
- Ignorance of laws and policies protecting cultural resources can result in destruction and vandalism of cultural resources.

EXISTING MANAGEMENT POLICIES FOR CULTURAL RESOURCES

Agency representatives referenced existing agency policies to develop objectives and recommendations for this plan (see Goals, Objectives, and Recommendations). Similarities and differences among agency policies are described in this section for public lands and private development in the Foothills. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land. Instead, the recommendations offer an overarching direction for approaching cultural resources in the Foothills as a whole. Table 21 at the end of the chapter lists the agency policy statements related to cultural resources.

SIMILARITIES

Boise City, Ada County, and Boise County have specific policies that call for the protection of cultural resources. The IDL and IDFG recognize the importance of cultural resources and coordinate with the SHPO on cultural resource issues on state lands. Federal agencies must consider cultural resources in land management and project development.

DIFFERENCES

Federal agencies are required by the National Historic Preservation Act and other federal laws to consider cultural resources in their land planning and project development. In Idaho, there is no state law that requires state agencies to protect cultural resources, except for the Idaho Protection of Graves Act (see below). Some cities and counties have ordinances that call for the consideration or protection of cultural resources. If a site cannot be protected, the City of Boise and Ada County may try to purchase the land or easements to protect the site.

All nonfederal land in Idaho, including private land, is subject to the Idaho Protection of Graves Act (1984), which requires that discovery of human skeletal remains be reported to the Idaho SHPO. Otherwise, there are no legal requirements for private landowners to report cultural resources.

REFERENCES

POLICY DOCUMENTS

- Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.
- Boise City Heritage Preservation Committee. February 1993. Potential Public Preservation Sites. 22 pp.
- Bureau of Land Management (BLM). 1982. Southwestern Idaho Cultural Resources Overview, Boise and Shoshone Districts.
- Bureau of Land Management (BLM). 1987. Class II Cultural Resource Inventory of the Boise District BLM Owyhee, Bruneau, Jarbidge and Cascade Resource Areas. Prepared by John M. Young. Revised 1986 to include the Cascade Resource Area data.
- Bureau of Land Management (BLM). 1999. Boise Front Areas of Critical Environmental Concern.
- Davis, B. and B. Perry Bauer. Ada County Historic Resources: A Reconnaissance Survey. Report prepared for the Ada County Historic Preservation Council. Boise, Idaho.
- EDAW, CH2M Hill, Jensen-Belts Associates, Zabala Giltzow Albanese Architects. 1998. Eighth Street Fire Addendum to the Reserves Master Plan: Hulls Gulch/Camel's Back Reserve and Military Reserve, 1996.
- Interagency Fire Team. September 1996. Interagency Fire Rehabilitation Report. 43 pp.
- Sevy, Jil M. 1995. Old Idaho Penitentiary 1870-1973: Walking Tour Guide. Idaho State Historical Society.
- U.S. Army Corps of Engineers (USACE). September 2011. Final Local Initiatives Implementation Plan for Former Boise Army Barracks, Ada and Boise Counties, Idaho, Project #F10ID010304. Prepared by: USACE, Seattle District. Prepared for: USACE, Kansas City District.
- U.S. Forest Service (USFS). April 1990. Land and Resource Management Plan for the Boise National Forest.

INTERVIEWS

Jones, Larry, Idaho State Historical Society Library. February 2000. Personal communication.

King, Glenda. Archaeologist and Ethnobotanist, Idaho State Historic Preservation Office. January 2000. Personal communication.

Nilsson, Patricia. Ada County Development Services. February 2000. Personal communication

Pengully, Suzi. Deputy State Historic Preservation Officer, Idaho Historical Society. September 2012. Personal communication.

Reed, William. Regional Heritage Service Team Cultural Resources Specialist, Boise National Forest. January 2000. Personal communication.

Shaw, Dean. Cultural Resource Specialist, Bureau of Land Management. January 2000. Personal communication.

Swanson, Ken. Administrator, Idaho Historical Museums, Idaho State Historical Society. February 2000. Personal communication.

4. BACKGROUNDRESOURCE USE

TABLE 21 CULTURAL RESOURCES

Agency policy statements about cultural resources in the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>21(9:5:1) FH-NC 1.1: CULTURALLY SIGNIFICANT PLACES Archaeological sites, historic sites, and areas of a sensitive geologic or ecologic nature shall be identified, inventoried, and protected. FH-NC 6.1: OPEN SPACE MANAGEMENT PLAN Development proposals shall comply with the Public Lands Open Space Management Plan for the Boise Foothills (2000) adopted by Council on December 5, 2000 (Resolution 16287) and the plan shall continue to be implemented through the development process in conjunction with plans and capital improvements from the participants – Boise Parks and Recreation Department, BLM, USFS, Ada County, Boise County, IDFG, and IDL. FH-NC 6.2: STATE ENDOWMENT LANDS State Endowment lands shall be regarded the same as private lands under the policies of this 2014 Plan. FH-NC 6.3: OPEN SPACE MANAGEMENT PLAN Update the Public Lands Open Space Management Plan for the Boise Foothills (2000) to reflect</p>	<p>9.4-5 Designate parks and open space as compatible land uses in environmentally or historically sensitive areas. 10.1 Identify, protect, enhance, and perpetuate sites and structures that are significant to the county’s cultural, archaeological, historical, agricultural, and architectural resources. 35(9.4-5)</p>	<p>Boise County has a rich historic legacy worth preserving. The Boise County Comprehensive Plan presents the vision to sustain those elements of the county’s heritage, custom, and culture that contribute to its appeal to both residents and visitors. The major task in preserving sites of historic or archaeological interest lies in identifying such sites. The goal is to recognize the many benefits of Boise County’s historical resources, customs, and culture that include areas of historical, cultural, archaeological, architectural, ecological, wildlife, and scenic significance. (Boise County Comprehensive Plan 2010 Update, Adopted May 24, 2010)</p>	<p>Coordinates with SHPO for all cultural issues on state lands.</p>	<p>Objective: Complete a cultural resource inventory on a sample of the area by the year 2000. Objective: Prepare and implement a coordinated resource management plan for the Boise Front in cooperation with other government agencies and recreation user groups by the year 2000.</p>	<p>Conduct Class III intensive inventory of properties that may be eligible for the National Historic Register of Historic Places and consult with the SHPO. Discovered places will be protected by the following: Redesigning or relocating the project. Salvaging through scientific methods the cultural resource according to SHPO agreement. 33(p. 25) Managing paleontological resources to protect and maintain, or enhance sites or areas for their scientific and educational values. 34(p. 28) Allowing invertebrate paleontology specimen collecting through permit procedure and reviewing EAs and CERs to determine if actions impact paleontologic resources. 34(p. 28)</p>	<p>Identify, enhance, and manage cultural resources. Evaluate in a timely and efficient manner, the significance of cultural properties recorded during inventory surveys. 33(IV-44) Monitor activities that may have an adverse effect on cultural resources that are unevaluated or eligible for listing on the National Register of Historic Places. 33(IV-44) Monitoring will include observation of changes that might affect the National Register qualities of eligible properties. 33(IV-44) Nominate significant cultural properties to the National Register of Historic Places, and prepare management plans for each nominated property. 33(IV-44) Coordinate cultural resource inventories with the SHPO and other agencies, including tribal governments. Maintain a cultural resources overview and associated databases, atlases, and files. 33(IV-44) Schedule and conduct a forestwide programmatic inventory of cultural resources by the year 2020, examining approximately 50,000 acres each year (approximately 40,000 acres will be examined in advance of ground-</p>

4. BACKGROUND RESOURCE USE

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>the recent acquisition of public open space and the development entitlements approved by Ada County and Boise City.</p> <p>Collaborate with private landowners, trail and open space advocacy groups, citizens, and other agencies to sustain the R2R trail system, promote user education, and maintain the recreational and natural resource values associated with the trail system.</p> <p>Fund and fully implement resource conservation partnerships and monitoring requirements with the BLM, IDFG, Boise National Forest, USACE, SHPO, The Nature Conservancy, Idaho Conservation League, IDL, U.S. Environmental Protection Agency, Idaho Department of Water Resources, and others.</p> <p>Continue coordination with agencies for the preservation, protection, and restoration of cultural resources.</p>						<p>disturbing projects, primarily timber sales, and an additional 10,000 acres will be examined as basic data collection on cultural resources). 33(IV-44)</p> <p>Conduct a cultural resource inventory, to appropriate legal standards, prior to any activity that might affect cultural properties. 33(IV-45)</p> <p>Proposed activities that have the potential to impact cultural resources will be reviewed by the forest archaeologist in accordance with applicable laws, including review of lands proposed for sale, transfer, lease, or exchange out of federal management. 33(IV-46)</p> <p>Cultural resources found to be significant under any National Register criteria will be placed on the list of possible nominations. 33(IV-46)</p> <p>Significant cultural resources will be protected from disturbance and deterioration from natural processes. Cultural resources will be protected from unauthorized disturbance and collection. 33(IV-46)</p>

4-6 GRAZING IN THE BOISE FOOTHILLS

Livestock grazing has occurred in the Boise Foothills since the 1880s. Historically, ranchers as far away as Nevada have been known to graze their livestock in the Foothills. The Military Reserve area was used to feed military horses from the Boise outpost. Between 20 and 30 times as many cattle and sheep historically grazed, unregulated, in this area than are currently allowed to graze the Foothills (Little 2000).

With grazing came damage to the Foothills watersheds. Identified problems such as erosion and overgrazing have been of concern since the early 1900s (Scholten 2000). Flood and mudflows in Boise's North End and the Barber Valley following a large wildfire in the fall of 1959 made watershed problems quite evident. The Soil Conservation Service dug contours and successfully seeded perennial grasses that stabilized the soil on Shaw Mountain following the wildfires and mud flows to reduce soil erosion.

Though the IDL and the BLM were the primary public land agencies owning land in the Foothills, neither was actively managing their land for resource protection and enhancement. Over time, a combination of wildfires, concentrated cattle grazing, and unauthorized off-trail use by 4WD vehicles caused the loss of native plants, soil erosion, and watershed damage in the Foothills. This led to the agencies taking on a more active role in managing their lands in a trial and error fashion. Also the ownership of the East Foothills gradually came under the Idaho Department of Fish and Game (IDFG). Starting in the 1970s, sheep grazing was reduced and more focus was given to winter forage for big game species. Historically, privately held lands have been unregulated (Scholten 2000; Duffner 2000; Clark 2000; Little 2000). As of 2014, the Foothills are lightly grazed by several bands of domestic sheep in the spring and the fall, and by cattle sporadically during the year.

Currently, the grazing management on the public lands in the Boise River WMA allotment is by an interagency *Coordinated Resource Management Plan* (CRMP). The CRMP appears to be working successfully and could be used to establish grazing guidelines for the remainder of the Foothills. Grazing capacities for allotments should be assessed and monitored by an interdisciplinary team, including a range conservationist, soil scientist, ecologist, and wildlife biologist.

The BLM, USACE, USFS, State of Idaho, and IDFG began actively managing grazing on public lands in the early to mid-1970s and, through a process of trial and error, present-day techniques evolved. Historically, privately held lands have been unregulated.

Riparian corridors along Hulls Gulch, Cottonwood Creek, Dry Creek, Five Mile, Orchard Gulch and Crane Creek have not received much grazing pressure in decades. Riparian vegetation is robust in all of these creek corridors. Today, the predominant use along these riparian corridors is recreation, which can also cause damage to riparian vegetation if not managed properly.

Although native vegetation communities have been lost in portions of the Foothills, hundreds of volunteers participating in community events have restored plant communities in some burn areas with sagebrush and bitterbrush plantings and seedlings. Many areas of severe erosion from old 4WD vehicle scars have been reseeded and blockaded from further access. In addition, conditions for grazing and rangeland are better today than in the past (pre-1970s) as a result of better-managed grazing practices.

A major wildfire in August 1996 burned 15,300 acres of the central Foothills in very hot temperatures. The fire started next to the police firing range in the Military Reserve and burned west to Eighth Street and into the upper Foothills. A large community-based restoration effort went into effect just days after the fire. Shrub and grass seedings occurred and erosion berms and hay bales were placed on steep slopes. In addition, more than \$5 million was spent on check dams in lower Crane Creek, and the upper hills of Hulls Gulch were terraced by the Boise National Forest, Natural Resources Conservation Service, and BLM (Stuebner 1997).

More than 485 people participated in the restoration efforts as well as inmate crews from the Ada County Jail and Idaho State Penitentiary.

GRAZING IN THE BOISE FOOTHILLS

CURRENT GRAZING PRACTICES

Cattle, sheep, and horses are grazed on public and private lands in the Foothills. Public lands are managed under grazing leases regulated by agencies; private land is managed by the landowner. The government agencies manage their properties independently, with the exception of the Boise River WMA allotment, which is managed under the interagency *Coordinated Resource Management Plan*. This coordinated plan has successfully maintained winter range for mule deer in the eastern portion of the Foothills. The grazing responsibilities of land managers from the various departments and agencies are described below.

Idaho Department of Lands

Idaho requires leases for grazing livestock on lands managed by the IDL. Traditionally, the carrying capacity of the site was based on grazing capacity and estimated annually by the state. Currently, the state requires grazing applicants to submit management proposals for the lease. After the state accepts the management proposal, the proposal becomes part of the terms of the lease (Duffner 2000).

The IDL manages between 6,000 and 8,000 acres of grazing land in the Foothills. Approximately 4,000 acres are leased for sheep, 1,200 to 1,500 acres are leased for cattle grazing east of Table Rock, and 1,300 acres are leased for cattle grazing off Bogus Basin Road. Because IDL ownership is scattered throughout the Foothills, most of the leases are in conjunction with adjacent private land or other leases to allow more economical grazing.

Idaho Department of Fish and Game

The IDFG actively manages cattle and sheep grazing leases on state and federal land in the Boise River WMA allotment under a *Coordinated Resource Management Plan*. Watershed values are used to establish grazing guidelines, and grazing practices are modified to provide wildlife habitat.

IDFG allows grazing by 325 cattle from April 15 to the end of July in a nine-pasture rotation. To protect water quality and wildlife habitat, IDFG has fenced off the riparian areas. [\(Add sheep grazing that goes on in the Boise River WMA?\)](#) The present rotation has been used for the past 28 years and includes properties under the jurisdiction of the IDL, BLM, USACE, State of Idaho, and USFS (Scholten 2000). Jerry Scholten noted that the Boise River WMA has better forage production today than when the IDFG initially implemented the grazing plan nearly three decades ago.

BLM

Like the IDFG and IDL, the BLM requires grazing permits. The BLM grazes nine allotments in the Foothills between April and July. Grazing permits are valid for 10 years, with each lease based on a set amount of animal unit months (AUMs). To change the permit allotment, the BLM must identify specific concerns or management problems based on range or utilization study. Several smaller allotments located adjacent to private property may be grazed from March to October or

are unrestricted as long as the range is not damaged. These variations depend on the wording of the individual permit and the conditions of the terrain.

The BLM is currently reassessing the grazing capacities of its lands through an interdisciplinary team, including a range conservationist, soil scientist, ecologist, and wildlife biologist. The process uses the team to assess the health of plants, soil, and watersheds of the allotment according to the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management* (BLM 1997). The entire management area will be surveyed within 10 years and will be inventoried in order of concern. The Foothills is the last area scheduled for assessment in 2009 because the Foothills receive less grazing pressure than the other sites (Clark 2000).

U.S. Forest Service

The USFS has regulated grazing by permit in the Boise National Forest since the early 1900s. The rangeland includes forest, sagebrush, grasslands, and meadow habitat.

The *Forest Service Allotment Management Plans* outline the use and development of each allotment on a long-term basis. Operating plans outline yearly management direction. USFS personnel inspect allotments for the use, condition, and compliance with grazing permits, the *Allotment Management Plan*, and the *Annual Operation Plan*. The permit holder is responsible for herding, salting, and maintaining livestock, as well as for the cost sharing on range improvement construction and for maintenance of all structural improvements of the allotment.

The USFS is involved in a program called Change on the Range, which was initiated at the national level and is designed to provide more emphasis on the multiple-product values associated with rangelands. One of the major tasks has been, and currently is, associated with the administration and management of livestock grazing programs. Therefore, a general association between the terms “range management” and “livestock management” has emerged.

Today, however, the benefits of the range management are recognized to go well beyond AUMs of forage. General awareness and appreciation for all uses and resources from rangelands have brought about a concerted interest for multiple-product management of these lands.

To meet the new challenges, the USFS is proposing changes in some of its past objectives and policies. In the new range management procedures, techniques are being implemented that measure the effectiveness of management of watershed values, wildlife and fish habitat, recreational opportunities, general aesthetics, and livestock forage. Methods and terminology are being developed that reflect how well we are managing our public rangelands in relation to their full capabilities.

Livestock grazing of range forage will continue. However, along with the production of livestock products, there will be a shift in management practices so that livestock grazing becomes a tool for promoting other resource values as well.

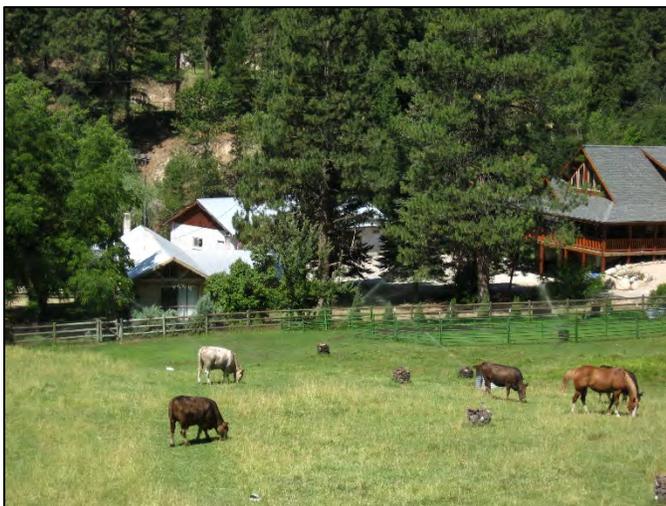
PRIVATE LAND

Private property is grazed in the Foothills. Several cattle operations graze private and public lands in the Foothills, including the following:

- Charlie Gibson (a small state land lease)
- Spring Valley (grazes land by State Highway 55)
- Randy Harris (grazes private land and some state land using an IDFG lease)
- Wilder Sheep Rancher Frank Shirts (trails sheep east and west across private and public property in the Foothills each spring and fall.)

Individual property owners regulate grazing on private land. Generally, large tracts of grazed lands are assumed to be managed appropriately to keep the land in production.

Areas of particular concern are smaller, private tracts that are fenced and intensively grazed, removing vegetation and compacting soil. Damage to these areas can also affect adjacent lands and watersheds. Though public agencies do not regulate private lands, private landowners must adhere to state and federal water quality standards.



At the present, no accurate method exists for assessing how private lands are used. A voluntary participation survey of the landowners would provide useful information about private grazing programs.

BENEFITS OF GRAZING

Generally, proper management enhances the benefits of grazing and minimizes its detrimental effects:

- The livestock business is part of the state's heritage and provides some viable employment.
- The livestock business sustains deeded land and prevents parcel splits or sales to a conglomerate.
- Grazing is presently used as a management tool to increase mule deer winter range habitat.
- Grazing can be used to control excess fire fuel.

Targeted grazing could be used as a tool to control the spread of cheatgrass and noxious weeds with a long-term objective of restoring native vegetation.

- Sheep can be used to prepare sites for reseeded efforts in areas where soils have been glazed or have a hydrophobic crust.

THREATS TO GRAZING

- Development of the Foothills might block trailing routes and therefore create access problems for those grazing livestock on public lands. Open space lands preserved for wildlife and recreation also can benefit from livestock grazing travel corridors.
- Increased recreation may cause conflict between the public and livestock (such as dogs chasing livestock, livestock chasing people, and livestock guard dogs chasing people and other dogs). The Idaho Rangeland Resource Commission Care-Share public outreach program has been addressing these conflict issues on an ongoing basis with trailhead signage, news media reports, and Internet communication with recreationists on key websites to give advance notice when sheep and guard dogs are on their way through the Foothills each spring.

EXISTING MANAGEMENT POLICIES FOR GRAZING

The policy analysis for the grazing section describes current management policies for public lands and private development in the Foothills. The policy analysis and resource description were used to develop objectives (see Goals, Objectives, and Recommendations). This information will help the Agency Working Group and Boise Parks and Recreation Department establish guidelines for the responsible management of public lands and development in the Foothills. A summary of the policy analysis is provided below. The similarities and differences among policies are also described. For agency policy statements, see [Table 22](#).

Grazing on public lands in the Foothills is managed separately. However, interagency efforts have proved successful. Currently, the *Coordinated Resource Management Plan* for grazing in IDFG's Boise River WMA appears to be working. According to Jerry Scholten (2000), range conditions for grazing have improved across the Foothills through management practices implemented by private and public landowners. These practices, including rotating pastures and limiting the number of stock animals, have led to sustaining the bitterbrush/sage community and wildlife habitat. Because the *Coordinated Resource Management Plan* has proved successful, these practices should be reviewed to determine whether they can be applied to other areas in the Foothills.

SIMILARITIES

Ada County, the BLM, and USFS are actively managing the grazing on their lands. Grazing practices have been used as a tool for wildlife habitat improvement and reduction of fire fuels, and resource plans now identify rotation cycles that have significantly improved the ecosystem over the years.

DIFFERENCES

State and federal agencies use grazing as a management tool, whereas local and county governments do not. City and county agencies do not have plans for grazing and, therefore, have little authority over grazing practices (except where required by state water quality standards).

BENEFITS FROM GRAZING

EFFECTS ON GRAZING

REFERENCES

POLICY DOCUMENTS

Bureau of Land Management (BLM). 1997. Standards for Rangeland Health and Guidelines for Livestock Grazing Management.

Stuebner, Steve. 1997. "Mountain Biking in Boise" history section details the 1996 fire and the rehabilitation efforts that occurred afterwards.

U.S. Department of Agriculture. 1997. Soil Survey of Boise Front Project, Idaho. 192 pages.

PERSONAL COMMUNICATION

Clark, Mary. 2000. Personal communication.

Duffner, Tim. 2000. Personal communication.

Little, Brad. 2000. Personal communication.

Scholten, Jerry. Idaho Department of Fish and Game. 2000. Personal communication.

4. BACKGROUNDRESOURCE USE

TABLE 22 GRAZING

Agency policy statements about grazing in the Foothills

BOISE CITY	ADA COUNTY	BOISE COUNTY	IDL	IDFG	BLM	USFS
<p>FH-CCN 2.5: AGRICULTURE AND RANGELAND Agricultural and rangeland uses are encouraged in the Foothills. Preservation of agricultural rangeland areas may qualify as dedicated open space under the density bonus. Dedication of current grazing land would be credited for density at the rate of one unit per 10 acres if the agricultural use continues with a perpetual easement. Small-scale agricultural uses are encouraged.</p> <p><i>Rangeland</i> FH-NC 1.4: HISTORIC USES Preserve the history of agriculture and grazing in the Foothills. Work with landowners to protect existing viable agricultural uses where possible using easements, cluster development, or other protective techniques.</p> <p>FH-NC 4.1: STUDY HABITAT Accurate and specific information on a development site shall be evaluated concerning the characteristics of critical deer and elk habitat and wildlife migratory corridors in the Foothills. Sources of information are the IDFG, U.S. Fish and Wildlife Service, and BLM. Proposed development projects shall have wildlife habitat area studies prepared</p>	<p>Extraction operations shall avoid impacts on agricultural lands. See Scenic and Aesthetic. 35(6.4-5g)</p> <p>Rural residential development shall be located on land that is not prime agricultural land. 35(5.3-11)</p> <p>Rural residential development should not cause adverse environmental impacts on agricultural land uses. 35(5.3-12)</p> <p>Establish preservation standards that protect the long-term use of land for agriculture and rangeland. 35(5.4-9)</p> <p>Establish large lot sizes outside fire and irrigation districts that preserve agriculture and open space. 35(5.4-10)</p> <p>Encourage agriculture-related industries and recreational uses or industries that due to incompatibility or excessive space requirements cannot reasonably locate elsewhere to locate in the rural areas on land not classified as prime agricultural land. 35(5.4-16)</p>	<p>Limited livestock grazing on leased public lands occurs throughout the county. Agriculture in Boise County primarily relates to producing livestock forages for winter feeding and grazing during the remainder of the year. Rangeland is the most important component for the county's livestock production, providing spring and summer forage. The producers have done many range management improvements including stock water supply, range seeding, cross-fencing, salt distribution, and proper stocking rates to improve the productivity of these lands. Future conditions for Boise County include positive support for agriculture and grazing operations. (Boise County Comprehensive</p>	<p>Grazing is typically authorized through a 10-year lease. Stocking levels and timing are based on land and vegetation capabilities.</p>		<p>60% or more classes I, II, or III /soils in a 40-acre parcel may be suitable for agricultural development 34(p. 9)</p> <p>40% or more Class IV in each parcel is unsuitable for agricultural development.</p> <p>Cropland in capability class II through V with average annual erosion rate more than three times that at which soil forms is unsuitable for agriculture. 34(p. 9)</p> <p>Grazing Preferences – within each grazing allotment, a grazing preference will be established at a level that will ensure that adequate forage is also available for wildlife.</p> <p>Sufficient vegetation is reserved for purposes of maintaining plant vigor, stabilizing soil, providing cover for wildlife, and providing other nonconsumptive uses. 34(p. 9)</p> <p>Grazing management will incorporate the needs of key plant species important to wildlife. 34(p. 9)</p> <p>New rangeland fences will be built to allow wildlife passage in accordance with district fence standards for deer and antelope. Any existing fences obstructing movements will be brought into conformance. 34(p. 9)</p> <p>Multiple-use management objectives will be developed for</p>	<p>Objective: Prepare to revise one range allotment management plan by the year 2000. 33</p> <p>LIVESTOCK GRAZING OF RANGE FORAGE WILL CONTINUE. However, along with the production of livestock products, there will be a shift in management practices so that livestock grazing becomes a tool for promoting other resource values as well. 33(II-32)</p> <p>The new “Change on the Range” emphasis will help ensure Boise National Forest lands are managed and evaluated based on their entire multiple-product values. 33(II-32)</p> <p>The Boise National Forest has no commitment for grazing under the Wild and Free-Roaming Horse and Burro Act of 1971. 33(II-32)</p> <p>Grazing is managed under prescription D. see page IV-93</p>

4. BACKGROUNDRESOURCE USE

BOISE CITY	ADA COUNTY	BOISE COUNTY	IDL	IDFG	BLM	USFS
<p>by qualified professionals and submitted with the project application for review by the above agencies.</p> <p>FH-NC 4.2: CONSERVE HABITAT</p> <p>Boise City will work with the IDFG to identify and conserve sensitive wildlife habitat areas and natural wildlife corridors connecting open space habitat areas. Where sensitive sites are judged as critically important to preserve, as defined in the Open Space Management Plan, they shall be protected by private ownership, by organizations dedicated to preservation of historic or archaeological sites, or by public ownership as funding allows. Where a habitat is judged as critically important to preserve, the habitat or appropriate wildlife easements shall be protected by private ownership, by organizations dedicated to preservation of wildlife habitats, or by public ownership.</p> <p>5. Develop a weed control budget and plan.</p> <p>g. Enhance open space forage and habitat values to benefit wintering big game and help reduce potential conflicts between wildlife and people due to habitat loss and urban development BPRCP8</p> <p>a. Monitor resources (e.g., rare and endangered species, habitat conditions in public open spaces, water quality, pest management, noxious weeds, wildlife issues, urban</p>		<p>Plan 2010 Update, Adopted May 24, 2010)</p>			<p>each multiple-use area. Future management actions, including approval of allotment plans, will be tailored to meet these objectives. 34(p. 15)</p> <p>Grazing Preferences – Within each grazing allotment, a grazing preference will be established at a level that will ensure adequate forage is available for wildlife and, where present, wild horses. Sufficient vegetation will be reserved for purposes of maintaining plant vigor, stabilizing soil, providing cover for wildlife, and providing other nonconsumptive uses. 34(p. 15)</p> <p>Grazing decisions or agreements will be made for those allotments where adequate information exists. In all other allotments where there is inadequate information, additional data will be collected to provide an adequate basis to begin implementation of any additional decisions needed. An initial stocking rate will also be established, which may be adjusted upward or downward in the final decision as a result of monitoring. All grazing decisions will be issued in accordance with BLM regulations. 34(p. 16)</p> <p>Activity plans will be used to present changes to an allotment. Actions set forth in the plan will be analyzed and compared with other options. During analysis, the proposal may be altered to mitigate impacts. The plans will be reviewed in one year. 34(p. 16)</p>	

4. BACKGROUNDRESOURCE USE

BOISE CITY	ADA COUNTY	BOISE COUNTY	IDL	IDFG	BLM	USFS
<p>fisheries, and animal movements). BRPCP8</p>					<p>Livestock use adjustments may be made by: kind of livestock grazing, rate, pattern, and forage. <i>34(p. 16)</i></p> <p>Stocking rates will be based on averages for each allotment. <i>34(p. 16)</i></p> <p>Range Improvement and Treatment – A variety of range improvements, grazing systems, and other grazing management may be made in conjunction with livestock management. <i>34(p. 16)</i></p> <p>Timing of improvements is based on management objectives. <i>34(p. 16)</i></p> <p>Range improvement proposals are shown by allotment. <i>34(p. 16)</i></p> <p>Cattle guards are considered part of fencing. <i>34(p. 16)</i></p> <p>Interseeding and reseeding projects with objectives to improve conditions to benefit wildlife and livestock will use forb and grass seed mixtures that are normally found in the ecological zone. <i>34(p. 16)</i></p> <p>All allotments are subject to analysis. <i>34(p. 16)</i></p> <p>Grazing Systems – There are existing grazing systems on seven AMPs. <i>34(p. 16)</i></p>	

4-7 VISUAL RESOURCES IN THE BOISE FOOTHILLS

The Foothills provide a scenic backdrop to the City of Boise, as well as scenic and remote areas for recreation, relaxation, and renewal. For these reasons, many people are becoming increasingly concerned about changes to the aesthetic quality of the Foothills. Human modifications to both private and public lands have altered the Foothills, changing the appearance of the natural landscape. Development, new roads, unmanaged trail and off-road vehicle use, and emergency activities have affected visual resources. Therefore, the public looks to land managers to protect these important visual resources and mitigate the effects of activities that might impact this important Foothills role.

VISUAL RESOURCES IN THE BOISE FOOTHILLS

The Foothills provide the scenic backdrop to the Treasure Valley and serve to remind citizens and visitors of the rugged and remote characteristics of southern Idaho. The quality of the visual environment has become increasingly important, and visual intrusions have inspired a sense of urgency for protecting the aesthetic quality of the Foothills. This plan recognizes the importance of visual resources and considers them on an equal basis with other open space values.

People rely on natural-appearing landscapes to serve as psychological and physiological “safety valves” for the following reasons:

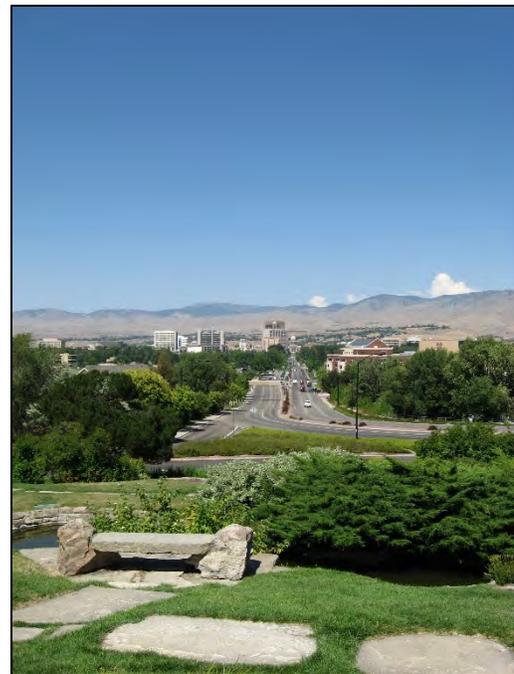
- The Treasure Valley’s urban population pressures are increasing.
- People’s lives are becoming more complex.
- Urban pressures are demanding more land for development.
- Once natural-appearing landscapes are becoming scarcer.
- People must travel greater distances to recreate outside the urban environment.

A new analysis was conducted in 2000 specifically to analyze visual resources. The purpose, methodology, and findings are presented below.

VISUAL RESOURCES ANALYSIS

As requested by the Agency Working Group in 2000, a visual analysis was completed for all lands in the Foothills, both private and public. Specifically the visual analysis:

- Identified particularly important visual resources for protection (such as rock formations, riparian areas, and unique landforms).
- Identified areas where human activities have affected visual resources.
- Established mitigation measures for reducing visual contrasts and improving scenic integrity.



4. BACKGROUND RESOURCE USE

- Used the results to help managers plan trails and other artificial elements so scenic integrity is maintained or improved.
- Worked with local, state, and federal governments to effectively manage visual resources.

While the assessment looks at both public and private lands, recommendations from the visual assessment will remain specific to public lands, as directed by the *Public Land Open Space Management Plan for the Boise Foothills*.

VISUAL INVENTORY METHODS

A small visual resources committee addressed the complex issues surrounding visual resources. Each committee member was chosen for his or her professional experience, knowledge of visual resource issues, and understanding of both private and public property owner concerns. The committee met several times at various locations in the Foothills to review existing visual information and to establish criteria for assessment. In addition, the committee was responsible for creating recommendations for visual resources and activities having an impact on visual resources.

Methods used in conducting the visual assessment inventory included site visits, aerial photo interpretation, interviews, and a review of existing public visual assessment methods. Both the USFS and BLM have methods for assessing visual information: the USFS uses Visual Quality Objectives (VQOs) and, more recently, the Scenic Management System (SMS); and the BLM uses the Visual Resource Management system (VRM). Since neither agency considers the urban environment in its assessment methods, a hybrid approach was developed to address all lands on an equal basis.

The inventory consisted of the following components:

- *Key viewpoints inventory.* Where does the public view the Foothills and have the most concern for change?
- *Landscape visibility.* What Foothills areas are most visible from key viewpoints?
- *Landscape character.* What are the different types of landscapes in the Foothills?
- *Landscape integrity.* Is the landscape visually intact or has it been altered?

The following subsections outline the method for determining key viewpoints, landscape visibility, landscape character and landscape integrity.

Key Viewpoints

The visual resources committee established key viewpoints from which people view the Foothills. Types of viewpoints included the following:

- *Roads and other travel routes.* Roads and highways that are used primarily by origin/destination travelers and that include proposed or designated scenic byways and recreation destination roads.
- *Trails.* Viewpoints primarily used by recreationists.
- *Overlooks and vistas.* Pullouts and pedestrian overlooks that people use to view the Foothills or Boise City.

4. BACKGROUNDRESOURCE USE

- *Public gathering places and events.* Parks and other gathering areas (such as the Idaho Shakespeare Festival Amphitheater) where the public is concerned about visual change.

All inventoried viewpoints were prioritized based on the following criteria:

- *Number of users.* Traffic counts, survey information, and visual observations were used to determine the number of users. Concern for change to the landscape increases as the number of viewers increase.
- *View duration.* Concern for change to the landscape is greater as view duration increases beyond just a quick glance. These durations are typically associated with vistas and destination points.
- *Viewer concern.* The specific concern for visual changes to the landscape was also considered. The higher the concern, the greater the sensitivity of the viewer.

Since this analysis does not assess the impacts of a specific project, but rather establishes sensitivity levels and priority for protection, only the viewpoints that resulted in viewpoint rankings were carried forward through the analysis.

Residences and other private viewpoints were not considered in the study. These areas did not represent the public concern for visual resources. [Table 23](#) describes each of the viewpoints inventoried in the project area, ranking criteria and overall sensitivity of each viewpoint.

Landscape Visibility

Landscape visibility is essentially a component of two elements – visibility and distance zones.

Visibility - Once key viewpoints were identified, they were incorporated into the Geographic Information Systems (GIS). GIS was then used to identify what Foothills landscapes were visible from each viewpoint.

A map was then made that showed the number of times an area was seen from different viewpoints. This step in the process was important because it represented the areas that were visible by the highest number of viewpoints. The more a landscape is seen by different viewpoints, the higher the concern for protection. (Figure 10 shows each of the viewpoints, what lands were visible, and how often.) The results were divided into four classes:

- *High Visibility.* Seen by 10 or more viewpoints
- *Moderate Visibility.* Seen by 3 to 9 viewpoints
- *Low Visibility.* Seen by 1 or 2 viewpoints
- *Not seen.* These areas were not seen by any of the viewpoints inventoried.

Distance Zones – Once the visibility was performed for each of the viewpoints, distance zones were then developed. Landscapes seen close-up are more visually sensitive than those seen in muted detail at greater distances. Three distance zones were developed:

- *Foreground (0.0-0.5 miles).* At a foreground distance, people can distinguish small features, such as vegetation texture, small rock features, streams, and animals. At this distance, people can also distinguish other sensory elements, such as movement and sound.

4. BACKGROUND RESOURCE USE

- *Middleground (0.5-4.0 miles)*. The middleground is usually the predominate distance zone at which most lands in the Foothills are seen, except for areas where vegetation and landforms do not allow. At this distance, people can distinguish individual trees. Large middleground is crucial: the viewer is able to see human activities from this perspective, in context with the overall landscape.
- *Background (4.0-10 miles)*. At a background distance, people can distinguish stands of trees, large areas of color, and larger rock formations. Here, landform ridgelines and horizon lines are the dominant visual characteristic. (In this document, a minimal number of background views were identified in the Foothills.)

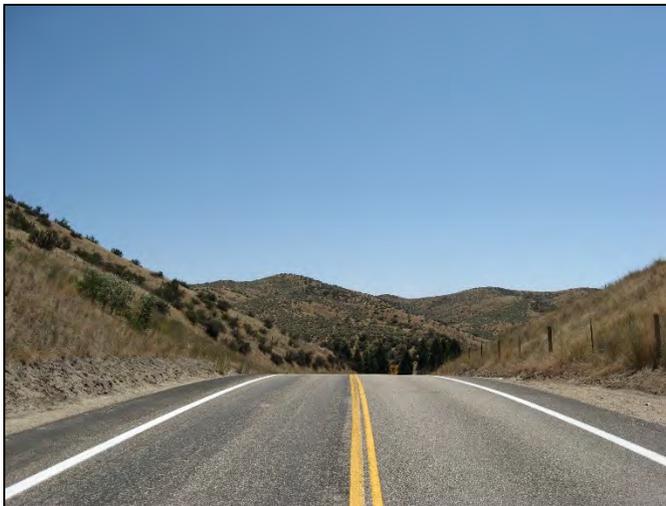
These distance zones were mapped using GIS (see [Figure 11](#)).

Landscape Character

Along Bogus Basin Road, the landscape's character changes dramatically. Rolling grass-covered hills near Boise change into conifer-covered hillsides toward Boise Ridge Road. Pockets of sagebrush, riparian areas, and rock outcroppings contribute to the diversity and richness of the landscape.

Landscape character gives the Foothills their visual and cultural image and is a combination of physical, biological, and cultural attributes that make each landscape identifiable or unique.

The committee spent much time in the field, looking at the landscape character in the Foothills and in context with regional landscapes. Aerial photography, vegetation analysis, and slope analysis were used to divide the landscape into separate units. [Table 24](#) describes each landscape character type found in the Foothills.



In a typical visual analysis, landscapes are ranked based on their aesthetic appeal. Diversity in form, line, color, and texture are all attributes used to divide and rank these units. After a review of all information, many field visits, and a review of secondary information, the visual resources committee determined that the Foothills landscape is viewed as a whole, with discernable landscapes that are all of equal value. No one landscape was rated as higher or lower than another. Rather, the visual resources committee ranked landscapes based on their landscape integrity (i.e., visually intact landscapes).

It was determined that those landscapes still visually intact and not modified by humans were considered more desirable than those with modifications.

Landscape Integrity

Landscape integrity indicates a degree of intactness and wholeness of the landscape character. Human alterations can sometimes raise or maintain integrity. More often, landscape integrity is lowered depending on the degree to which the landscape varies from the original aesthetic character. The following levels of scenic integrity were found in the project area (see [Figure 13](#)).

- *High (unaltered landscapes)*. High landscape integrity refers to landscapes where the scenic integrity is intact. These areas are natural appearing, with natural-appearing vegetation patterns and features, water, rock, and landforms. Some direct human alterations might have occurred (such as trails), but these alterations do not detract from the landscape setting.
- *Moderate (moderately altered)*. Moderate scenic integrity refers to landscapes where the valued landscape character “appears moderately altered.” Deviations usually remain subordinate to the landscape character being viewed and include agriculture areas and areas dominated by unmanaged recreation use.
- *Low (heavily altered)*. Low scenic integrity refers to landscapes where the valued landscape character “appears heavily altered.” Deviations might strongly dominate the valued landscape character and typically do not borrow from the existing form, line, color, and texture of the landscape being viewed.

ANALYSIS AND FINDINGS

Upon completion of the visual inventory, a visual analysis was performed. Landscape visibility and scenic integrity were combined to determine the overall visual sensitivity level (see [Figures 14 and 15](#)). The analysis established visual sensitivity and identified those lands where people are the most concerned about visual changes to the landscape. In the analysis, four levels of sensitivity were developed:

- *Sensitivity 1*. These areas have the highest priority for visual protection. Modifications to the landscape should be carefully planned to match the existing landscape character and should not be evident. These landscapes are highly visible, and any modification might be noticed from many of the key viewpoints. (Human modifications should be moved to lower-sensitive landscapes, where possible.)
- *Sensitivity 2*. In these areas, changes to the landscape should remain subordinate to the landscape character, and modifications should match the existing form, line, color, and texture of the surrounding landscape. These landscapes are moderately visible from key viewpoints, and any modification might be noticeable. (Human modifications that alter the landscape character should be moved to lower-sensitive landscapes, where possible.)
- *Sensitivity 3*. In these areas, human modifications might have dominated the landscape setting or are not visible from inventoried key viewpoints. However, any modifications should match the existing scale and borrow from the surrounding form, line, color, and texture. If these areas are located on public lands, mitigation should be considered to improve the landscape integrity. Though these areas are not visible from key viewpoints, changes to the landscape from many other less-sensitive viewpoints might be noticeable.
- *Sensitivity 4*. These areas have typically been heavily altered by human activity and have the lowest visual priority for protection. If these areas are located on public lands, mitigation should be considered to improve the landscape integrity (such as mitigating

terracing, trenches, and redundant trails, and closing roads). Where possible, any new elements introduced into the landscape should match the surroundings.

Land managers can use these sensitivity levels to better describe and understand scenic value as one consideration in decisions affecting visual resources. This information can be used to identify opportunities for land managers to protect and improve scenic integrity. Where scenic integrity is improved, sensitivity levels might change; rehabilitation, revegetation, and proper mitigation can significantly improve modified conditions in the Foothills. (See Goals, Objectives, and Recommendations for more information.)

THREATS TO VISUAL RESOURCES

Roads. New road construction can cause a significant visual intrusion on the landscape. New roads add a new linear feature, create a contrast in soil color, and when located on steep slopes, can create cuts and fills, causing the landform to change. This type of visual impact is apparent from great distances.

Unmanaged off-road use. Unmanaged off-road use, as seen near Aldape Summit, also contributes to visual impacts. However, these impacts are not so much linear intrusions as large visual contrasts created by random and destructive use.

Trails. To a degree, trails can cause visual impacts similar to those of roads. The visual impact of trails is most apparent where trails are placed on steep slopes and cause erosion. Unmanaged trails can have the greatest impact because these trails are not rehabilitated, creating the potential for erosion, removal of vegetation, and further visual contrasts.

Development. Developments create strong visual contrasts and dramatically change the character of the landscape. By changing the natural topography and introducing artificial features, new color contrasts, exotic vegetation, lights, and impervious surfaces are added to the landscape. Because slopes in the Foothills are severe, development requires access roads and disturbs soils and vegetation during construction. This type of visual impact is apparent from a long distance, particularly where houses are built on ridgelines.

Utilities. Utilities, such as transmission lines, substations, water towers, and microwave towers, all can impact visual resources. These structures, coupled with disturbance from access roads, can be seen from great distances and are difficult to mitigate. However, through proper planning, such as placement of structures, color, and proper access road construction,



impacts can be minimized. Any new utilities in the Foothills should be carefully planned to reduce visual impacts.

Fire. Though fire is a natural process, burnt vegetation and scorched soils can substantially alter the visual quality in any given area. Over time, the visual impact is lessened as vegetation grows back. However, mature stands of coniferous vegetation that was once destroyed by fire require substantial time to recover. This impact is most evident in forested lands burnt by the 8th Street Fire, where stands of ponderosa pine were destroyed near Boise Ridge Road.

Emergency activities. Emergency activities caused by the 8th Street Fire have impacted visual resources. Deep trenches were cut to reduce flooding. As a result, long linear bands visible from many locations in the Treasure Valley were created. Long-term visual impacts have also resulted (such as the 1959 fire terraces) where the earth dams created additional changes in the physical landscape. These impacts are screened in most cases and are only visible to Foothills trail users.

EXISTING MANAGEMENT POLICIES FOR VISUAL RESOURCES

The Agency Working Group referenced existing agency policies to develop objectives and recommendations for this plan (see Goals, Objectives, and Recommendations). A description of the similarities and differences is presented in this section. Recommendations that come out of this 2014 Plan are not intended to supersede existing policies on agency land. Instead, the recommendations offer an overarching direction for approaching visual resources in the Foothills as a whole. Table 23 at the end of the chapter lists the agency policy statements related to visual resources. An overview of the USFS direction for visual resources follow Table 23.

SIMILARITIES

The BLM and USFS use visual assessment inventory programs to manage visual resources on their lands. The BLM uses the VRM system and the USFS uses VQOs. Both programs are similar and are used to determine the acceptable limits of visual modifications (such as roads and trails). Their systems rate landscapes based on aesthetic quality, visibility, and sensitivity of viewers, and their rankings range from areas that must be preserved with no new modifications to areas that can receive higher degrees of modification.

Both the BLM and USFS view the visual resources in the Foothills as having similar aesthetic quality; therefore, they recommend similar management strategies. Descriptions of each strategy are as follows:

- *USFS VQO Partial Retention.* Modifications might be visually evident but must be integrated into and visually subordinate to the surrounding landscape. Activities might introduce form, line, color, and texture not common in the surrounding landscape, but these activities should not attract attention.

4. BACKGROUNDRESOURCE USE

- *BLM VRM Class II*. Changes in any basic elements (such as form, line, color, and texture) caused by management activities should not be evident in the characteristic landscape. A contrast might be seen but should not attract attention.

Boise City and Ada County also have programs to manage visual impacts pertaining to development and infrastructure associated with development. Boise City provides the most detailed policies, whereas Ada County is more general. In Boise City, specific and thorough requirements have been placed on developers who wish to develop in the Foothills. Ada County relies more heavily on a review process and determines visual quality on a case-by-case study. Boise City and Ada County use mitigation to reduce the visual impacts associated with development; however, neither agency monitors mitigation to ensure that visual guidelines are followed.

DIFFERENCES

No consistent standard between federal and local governments exists for managing visual resources, and what is considered scenic to one agency might not be scenic to another. Boise City and Ada County consider views from the Boise Valley floor to be the most important, whereas the USFS and BLM (which does not consider the urban environment) instead look at travel routes and trails as having the most important views of the landscape.

The USFS is the only agency that seeks to identify and mitigate areas not meeting VQOs. Boise County, IDL, and IDFG have no policies relating to visual resources. Given the attention the USFS gives to visual qualities, this 2014 Plan includes an excerpt from the Forest Plan (2.12.13), following Table 23.

REFERENCES

POLICY DOCUMENTS

- Ada County Development Services. 1996. Ada County Comprehensive Plan.
- Ada Planning Association (APA). July 1998. Interim Foothills Transportation Plan.
- Bureau of Land Management (BLM), Boise District. 1990. Cascade Resource Area Off Road Vehicle Management Plan.
- Bureau of Land Management (BLM). 1986. Visual Resource Management Inventory and Contrast Rating Manuals.
- City of Boise. 1994. Boise City Comprehensive Park and Recreation System Plan: Goals, Objectives and Policies.
- City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives and Policies.
- City of Boise. March 1997. Boise City Foothills Policy Plan. An amendment to the Boise City Comprehensive Plan. Boise, ID.
- Fenneman, Nevin M. 1931. Physiography of the United States. McGraw-Hill, New York.

4. BACKGROUNDRESOURCE USE

U.S. Forest Service (USFS). 1974. The Visual Management System (VMS). Chapter 1. GPO, Washington DC.

4. BACKGROUNDRESOURCE USE

TABLE 23 VISUAL RESOURCES

Agency policy statements about the visual resources in the Foothills

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Developers shall comply with the Ada County Ridge-to-Rivers Pathway Plan by designating and preserving planned trail and common open space areas for public acquisition or dedication in exchange for density transfers, land exchanges, or cluster development. All trailheads should be provided with public parking and buffered from the surrounding uses. Access for the handicapped shall be incorporated into the designs for trailheads and parking areas. No loss of allowable density shall occur where property is transferred to public ownership. A state or local unit of government may sell or exchange density from its property developable property. <i>21(4:1:3)</i></p> <p>Public trails and common open space areas should be acquired by the public through such methods as purchase, donation, easements, or land exchanges or use of density transfers. <i>21(4:1:4)</i></p> <p>The development and maintenance of public trail support facilities, parking lots, restrooms, and other such features shall be the responsibility of the public. <i>21(4:1:5)</i></p> <p>New Foothills development adjoining federal and other public lands held for preservation should provide a buffer to protect wildlife habitat, recreation, watershed, and other natural resources and minimize adverse impacts on such lands and waterbodies. Creation of such buffers on already-developed property should be encouraged. <i>21(4:2:1)</i></p> <p>Points of access to public lands should be served by public roads, or primary or secondary trails routed around or between developments. <i>21(4:2:2)</i></p> <p>Public open space and public parks shall be linked by a path/trail system composed of on-street paths, secondary trails, and primary trails And will be managed for multiple uses. <i>21(4:2:3)</i></p>	<p><i>8.3-2</i> Encourage a continuous network of pedestrian and bicycle pathways linking neighborhoods, parks, schools, open space, and commercial areas.</p> <p><i>8.3-6</i> Adopt the Ridge-to-Rivers Pathway Plan.</p> <p><i>6.4-5</i> Consider mitigation (i.e., hours of operation, access to arterials and collectors, noise and dust abatement, screening, and water quality standards).</p> <p><i>9.1</i> Identify, prioritize, reserve, develop, and maintain a system of recreation areas including parks, parkways, pathways, trailways, greenbelts, and open space.</p> <p>Evaluate all development requests to determine their consistency with APA Ridge-to-River Pathways Plan. <i>35(9:3:1)</i></p> <p>Support coordination... Encourage agencies to obtain permission and authority from property owners prior to construction of pathways and trails. <i>35(9:3-5)</i></p> <p>Continue to use volunteers and the Sheriff's Inmate Labor detail in maintaining and building trails. <i>35(9:3-6)</i></p>	<p><i>11.</i> Encourage the private establishment of trails and open space corridors through subdivision review.</p> <p>Continue to support the county in the maintenance of trails and other facilities as long as fees and other revenue can be collected to offset the costs. <i>27(p. 76)</i></p> <p>Encourage the completion of the mapping of existing recreation trails in the county.</p> <p>Find ways to have out-of-county users help pay for services / transportation.</p> <p>Trail maintenance should be funded by users (snowmobile facilities and trails should be encouraged). Fees collected should be appropriated to areas of recreation users.</p>			<p>ORV recreation activity may be limited in crucial wildlife habitat.</p> <p>ORV closure will be implemented if BLM or IDFG determines harassment to wildlife is occurring.</p> <p>ORV access on public lands will be placed in one of three categories for purpose of controlling motorized vehicle access:</p> <p>Open—Motorized vehicles may travel anywhere.</p> <p>Limited—Motorized vehicles are permitted, subject to specified conditions such as seasonal limitations, speed limits, and designated routes of travel as developed during subsequent activity planning.</p> <p>Closed—Motorized vehicles are prohibited.</p> <p>Shaw Mountain Road closed to all vehicles December 1 to April 1 to protect deer winter habitat.</p> <p>Objective: Maintain the Hulls Gulch National Recreation Trail at level 3, funding priority 1. Restrict use to nonmotorized, nonmechanized recreational opportunities.</p> <p>Objective: Maintain Bogus Basin Road #297 and Boise Ridge Road #374 (USFS jurisdiction) for motorized traffic during the snow-free season.</p>	<p>Objective: Maintain the Boise Front Trail #2215, Robie-Daggett Trail #2220 at level 1, funding priority 3.</p> <p>Objective: Maintain the Hull's Gulch National Recreation Trail at level 3, funding priority 1. Restrict use to non-motorized, non-mechanized recreational opportunities.</p> <p>Objective: Maintain Bogus Basin Rd, #297 and Boise Ridge Road #374 (forest Service Jurisdiction) for motorized traffic during the snow free season.</p>

4. BACKGROUNDRESOURCE USE

Boise City	Ada County	Boise County	IDL	IDFG	BLM	USFS
<p>Areas of private lands within developments designated as common open space will be managed in accordance with a plan prepared and approved in the PUD process. <i>21(4:2:4)</i></p> <p>State endowment lands shall be regarded the same as private lands under policies of this 2014 Plan. <i>21(4:2:5)</i></p> <p>Objective: developments shall include secondary access to public trails and lands. <i>21(4:3)</i></p> <p>Secondary trails within developments shall allow public access and link the on-street path system to public trails and lands. <i>21(4:3:1)</i></p> <p>Need for secondary trails shall be evaluated case-by-case. <i>21(4:3:2)</i></p> <p>Secondary trails should be established where there are no existing public or other secondary trails. <i>24(4:3:3)</i></p> <p>When a secondary trail is required, the developer shall establish a right-of-way for the trail in a location that will reduce walking distance. <i>21(4:3:4)</i></p> <p>Buffering techniques shall be used between trails, public parking areas, and the developed areas. <i>21(4:3:5)</i></p>					<p>Objective: Maintain the Boise Front Trail #2215 and Robie-Daggett Trail #2220 at level 1, funding priority 3.</p> <ol style="list-style-type: none"> 1. Motorized and nonmotorized vehicle use will be limited to designated roads and trails. 2. Highland Valley and Shaw Mountain Road will be closed to motorized and nonmotorized vehicle use December 15 to April 1. 3. The upper portion of 8th Street will be closed to 4-wheel drive vehicles during the wet winter months. 	

VISUAL RESOURCES – U.S. FOREST SERVICE 02/12/13

DESIRED CONDITION

The Boise National Forest provides a range of diverse landscapes. The scenic environment within the forest ranges from landscapes displaying little or no evidence of management activities to landscapes that have dominant visible evidence of management activities. Scenic quality is maintained or enhanced in areas of high scenic value and other highly used recreation areas.

GOALS

Manage the forest's scenic resources to maintain the recreation and visual resource values, while meeting other resource needs.

STANDARDS

All projects shall be designed to meet adopted VQOs as identified in Management Area Direction and represented on the forest VQO map.

Allow for short-term reductions in VQOs to accommodate Burned Area Emergency Rehabilitation (BAER) projects, emergency needs for protection of investments, and public safety needs. When reducing VQOs, attempt to meet the next-highest objective at the closest viewer distance or most relevant distance given the probable sensitive viewer.

Below is the management area direction for the area in question

Meet the VQOs as viewed from the following corridors:

- Bogus Basin Mountain Resort
- Forest Road 260
- Mores Mountain Interpretive and Mores Mountain Biking Trails
- Bogus Basin Nordic Trail
- Shingle Creek Trail 610
- Hulls Gulch Trail
- Trail 4
- Shafer Butte Recreation Site

5-1. MANAGEMENT AND MAINTENANCE FUNDING SOURCES

This section is based on MOU Objective 3. It assesses opportunities and constraints for funding maintenance and management of the Foothills and identifies appropriate recommendations for implementation.

AGENCY AUTHORITIES AND FUNDING ACCESS OVERVIEW

Like public land managers nationwide, land managers in the Boise Foothills face tight budgets, limited staff, increased competition for grants and volunteers, and growing service demands. The agencies also have limited funding tools from which to choose, depending on regulatory authority and mission. Seeking options to supplement traditional funding sources (e.g., grants, partnerships, donations, and volunteers) can help advance certain plan recommendations that call for increased service levels or new programs to address needs in the project area. [Table 24](#) provides an overview of the types of supplemental funding programs the agencies are implementing or have authority to implement within the planning area.

TABLE 24 AUTHORITY AND USE OF ALTERNATIVE FUNDING TECHNIQUES AND PROGRAMS BY PUBLIC AGENCIES

Agency	Supplemental Taxing Authority	Grant Writing	Dedicated License or Permit Fees	Public—Private Partnerships	Volunteer Program	Gifts and Donation Program	Public Partnerships
Ada County	III	I	I	I	I	III	I
BLM		II	I	I	II	III	I
Boise City	II	I	I	I	I	I	I
Boise County	III	III	III	III	III	III	III
IDFG		I	I	I	I	III	I
IDL		III	I	III	III	III	I
USFS		III	I	I	II	III	I

I—Agency currently implements a program or has exercised authority to do activity and provides dedicated funding for necessary in-house personnel and operations.

II—Agency currently supports program activity through indirect means but does not provide dedicated funding for in-house personnel and operations (i.e., contributes project funding, equipment, supplies, technical expertise, and other means).

III—Agency has authority to implement but does not actively seek to use.

FUNDING SOURCES

Supplemental Taxing Authority

Local governmental agencies can implement certain supplemental tax-based funding programs subject to requirements and limitations prescribed by Idaho law. Supplemental tax funding tools that could be applied in the Foothills planning area include local improvement or service districts, voter-approved bonds or serial levies, local option sales tax, and franchise fees on public utility services. The use of special taxing authority is often constrained by public support. To use these tools, local governments must seek broad popular support and demonstrate a clear need for public demand of the service. Both the City of Boise and the ACHD reserve portions of their dedicated tax funds for neighborhood-based project improvement grants. Funding under these programs can be used to construct and improve trails, rehabilitate damaged natural areas, address drainage problems, and provide safety and amenity improvements to public parks, open spaces, and rights-of-way.

Grant Writing

All of the agencies are involved in some type of grant writing. Some agencies may pursue grant opportunities more aggressively than others. For the most part, all grant programs have others competing for limited funds. Most grant programs have a clear focus or mission. Grants are most often awarded for applications that provide for leveraged funding of projects or programs where an applicant can also show a clearly demonstrated need that fits the grantor's program focus. An agency's ability to pursue grants is affected by funding availability, staffing, mission, planning activities, and creative leveraging mechanisms. Boise City and IDFG have full-time paid professionals whose normal duties include grant writing. Various public and private grant programs could be used for the studies, projects, programs, and services suggested in the *Public Land Open Space Management Plan for the Boise Foothills*. Possible government-sponsored grant programs include the recently approved Land and Water Conservation Fund, Idaho Parks and Recreation Department grants, Transportation Enhancement Act for the 21st Century match grants, and others. Private and quasi-public grants that could be used for the Foothills include the Albertson Foundation, Hewlett Foundation, Bullitt Foundation, Wilburforce Foundation, Gates Foundation, University of Idaho Cooperative Extension Program, and others.

Dedicated License and Permit Fees

License fee implementation authority, or permit-based funding tools that provide dedicated funding for reinvestment in environmental or recreational uses within a specific jurisdiction or unit area, is relatively common among the agencies. The exception is the IDL, whose mission is much different from that of the Foothills' public land managers. The use and success of such programs varies among agencies. Dedicated permit and license fee programs typically come with narrow limits on how the funds can be used. For example, the IDFG and Ada County Parks & Waterways Department fund much of their operations, maintenance, and capital development activities through license and permit fees. Boise City assesses park impact fees that can only be used to offset demand for certain types of park and recreation facilities necessitated by growth.

The Recreation Fee Demonstration Program was enacted by Congress in 1996. In December 2004, Congress enacted the Recreation Enhancement Act, which gave federal agencies a 10-year multiagency recreation fee program. Campground fees, parking fees, and other day-use fees come with some enforcement challenges. Local and state implementation of user fee programs seems to enjoy greater acceptance and success than that experienced by federal agencies. User fees might work in the Boise Foothills; however, the cost and benefits of implementing a user fee program in the Foothills area should be evaluated.

Public-Private Partnerships

All of the agencies can participate in public-private, or public-nonprofit partnerships. These agencies typically enter into such arrangements to defray operation and maintenance costs, reduce costs, reduce costs of facilities development, or enhance maintenance to public lands or facilities. The IDL is the only agency that does not actively pursue partnerships with private entities, perhaps because of its mission to maximize funding for schools. IDFG has taken full advantage of the numerous wildlife, conservation, and sportsmen organizations to help fund support for volunteer activities and improvements on lands important to the department's mission.

Volunteer Programs

Volunteer programs are supported by most of the agencies. Support for such programs varies widely, depending on staffing, operational funds, and importance to the agency mission. Boise City, IDFG, and the R2R program actively seek and use volunteers to accomplish many tasks, such as trail maintenance and development, revegetation, and litter removal. A cooperative funding arrangement and establishment of a clearinghouse for coordination of volunteer opportunities and project dates could benefit all agencies in the project area. Aside from fiscal benefits of volunteer programs, such activities could also help agencies build a positive image of their activities with constituents and future supporters, as well as educate and help promote social awareness

Gift and Donation Programs

All of the agencies can seek gifts and donations; however, only Boise City has programs and staff for seeking gifts and donations from private individuals, businesses, and nonprofit organizations. Boise maintains and publishes a gift catalog. It also funds Boise Parks and Recreation Department staff whose duties include actively seeking donations from service clubs and businesses. The Boise Parks and Recreation Department also has a successful track record with its Heritage Fund program, which allows individuals and groups to donate cash for various activities and projects.



Dedicated Local Open Space Foundation

A step beyond gift and donation programs is development of an established local open space foundation, dedicated to raising funds, leveraging volunteer resources, and actively supporting the mission of public open space management agencies. This option is increasingly common around the U.S. A local foundation can be more proactive and nimble in fundraising than a typical public agency. By committing that any money raised by donations to the foundation will go directly to open space goals, a foundation can appeal to donors who might hesitate to donate to public agencies. Established open space foundations can generate significant funds to supplement agency resources.

Public Partnerships

Public partnerships typically provide for pooled funding and sharing of professional services and maintenance staff, equipment and facilities, and data. The most notable program in operation in the Foothills is the R2R program. All land management agencies in the Foothills project area participate at some level in this partnership. However, partnerships are not without challenges since they require effective communication and ongoing commitment by the signatories. Major challenges can occur when budgets, priorities, or commitment of one or more partner organizations decreases. In these instances, organizational leadership, creativity, receptivity to change, and resourcefulness are particularly valuable to the survival of a partnership.

Another type of public partnership arrangement focuses on intergovernmental agreements that address conservation or resource use activities and coordination needs. This type of partnership helps smooth relationships, typically spells out procedures and processes for developing projects in or around sensitive sites, and presents opportunities for supplemental funding such as one-time appropriations for education programs, studies, monitoring activities, or research activities. An example of this type of partnership is the Rare Plant Conservation Agreement between the BLM, U.S. Fish and Wildlife Service, Boise City, and USFS.

A third type of public partnership agreement is short-term and typically project- or program-based. These partnerships can provide for one-time funding of projects on lands managed by another agency. Such public partnership arrangements have been used for fire restoration, resource inventory and monitoring activities, and riparian area development. Opportunities exist for successful short-term public partnership, particularly with agencies who have no land management responsibilities but have resource-based program responsibilities. These agencies include the Natural Resource Conservation Service, Ada Soil Conservation Service District, Idaho Department of Water Resources, AmeriCorps program, and others.

SUMMARY OF OPPORTUNITIES

Use and implementation of supplemental funding programs and techniques is enhanced by funding for dedicated staffing; clearly identified needs, opportunities, and constraints; and funding to support and nurture the projects initiated under the various programs and techniques discussed. Development of this 2014 Plan could increase agencies' abilities to use the funding tools discussed to obtain supplemental funding. The agencies should consider cooperatively funding a volunteer clearinghouse program for the Foothills to take advantage of the nearby urban population base. To streamline administrative costs and efforts in the Foothills, a lead agency could be designated to manage supplemental funding efforts and facilitate grants, volunteer activities, partnerships, donations, and other related activities. Agencies that do not actively seek funding opportunities should support each other in seeking, funding, and securing both short- and long-term agreements for projects and maintenance activities on their lands.

REFERENCES

POLICY DOCUMENT

Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.

City of Boise. 1994. Boise City Comprehensive Park and Recreation System Plan: Goals, Objectives and Policies.

City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives and Policies.

INTERVIEWS

Dudley, Mary. Volunteer Coordinator, Idaho Department of Fish and Game. May 9, 2000. Personal communication.

5-2 PUBLIC INVOLVEMENT AND EDUCATION

This section is based on MOU Objective 5. It establishes a collaborative approach that effectively integrates citizen and private interests in resource management activities along the Foothills. In addition, this section provides public involvement and education strategies in all facets of Foothills resource management, including volunteers, peer education, project development, implementation, and fire prevention.

PUBLIC INVOLVEMENT AND EDUCATION

PURPOSE

Not all Foothills lands can or should be protected or enhanced through public acquisition and public management. Reaching public goals for the Foothills as a whole will require an active partnership with all parties affecting this area, including private property owners, developers and builders, schools, Foothills users, and others. This broader effort needs to be based on community involvement and education. Open space managers must build and support a strong communication network among citizens, nonprofits, and user groups so everyone works together to plan for the future of the Foothills, establish stewardship programs, and create new opportunities for sustainable use. Only through a broad, ongoing, and inclusive outreach process can both privately and publicly held open space be managed in a manner that reflects the sensitivity of Foothills resources and responds appropriately to growing and changing interests in how the Foothills are used.



Building regional communication networks around programs related to open space issues is vital to the successful implementation of the *Boise Foothills Open Space Management Plan* and building awareness of management options. As citizens augment their understanding of open space issues, they increase their ability to become active partners in future community development plans, periodic reviews of this 2014 Plan, and other land management agency plans.

With a long-term commitment to establishing effective communication with user groups and environmental and natural resource communities, open space managers are encouraged to take a broad approach and work to ensure that the public has a greater awareness and understanding of the open space in the Foothills. To this end, partners in the Foothills Council will work with staff and volunteers at the FLC to develop education and volunteer programs, create and distribute educational materials, and assist any community group with outreach relating to the protection and use of the natural resources in the Foothills.

Public involvement and education programs should be designed to attract a wide range of participants from different neighborhoods, different ages and incomes, and with varying interests and perspectives on the future of the Foothills.

OPPORTUNITIES

Currently, there are only a few ways local, county, state, and federal agencies engage environmental groups, neighborhood associations, citizens, and user groups, but each agency does it independently of each other. This type of outreach is done through occasional public open houses on specific issues, email lists each agency compiles of interested citizens, or Facebook followers. This independence causes some duplication and does not ensure that the widest range of individuals are kept current on Foothills resource issues. This plan seeks to improve the collaborative approach for outreach and educational opportunities among agencies and the public.

Table 25 describes the existing public involvement and education programs used to promote Foothills awareness, including a short description and a listing of the program's sponsor and audience. This table also identifies each program's resource focus. Shaded cells in this table indicate that the resource is part of the program's focus.

Managers should use the table to explore new ways to and analyze existing programs, enhance efforts, and create new ones to augment existing programs.

TABLE 25 PUBLIC INVOLVEMENT AND EDUCATION PROGRAMS FROM EXCEL SPREADSHEET

INTERPRETATION

Currently, only a handful of self-guided interpretive opportunities are available in the Foothills. They include the Hulls Gulch Interpretive Trail, the Idaho Bird Observatory, and the Old Penitentiary. Managers and the public agree that the Foothills need more extensive interpretive strategy, including signage, "face-to-face" programs with schools and user groups, guided walks or bike rides, and hardcopy and web-based materials. Though many improvements have been made to R2R trailhead kiosks and trail numbering/ naming markers, there is opportunity to identify new locations for the trail etiquette signage and provide new signs on environmental awareness, user responsibility, management projects, and safety concerns. Trail users have provided feedback on the annual trail user surveys on the specific types of subjects they would like to learn about.

In 2010, the Story Trail opened on the FLC perimeter trail. It features a different nature-related storybook each month. The trail is open sunrise to sunset, seven days a week. It was based on the Storywalk® program in Vermont. The staff at the FLC worked in partnership with staff at the Boise Public Library to pick out the books. Volunteers switch out the stories, make repairs to the reading platforms and prepare the books for display. Many citizens have come to the Foothills for the first time as a result of learning about the Story Trail. Expansion of the Story Trail to other parts of the Foothills is possible in the future.

The BLM replaced the interpretive sign panels on the Hulls Gulch National Recreation Trail a few years ago. These signs provide information and images on birds, wildlife, fire, fire reclamation, weeds, Lake Idaho, riparian zones, and nature-inspired poems.

As a result of a 2009 fire that charred 200 acres in the West Foothills, a group of interested land managers and scientists saw the need to restore the area and partnered with the City of Eagle and Ada County to form the Healthy Hills Initiative. Besides working to nurse this area back to life, the group has created several interpretive signs on native and rare plants, invasive weeds, geology, wildlife, erosion, fire-prone ecosystems, and defending your home. It is the hope that these signs will be posted in other Foothills locations in addition to the site of the burn to educate users about wildfire in the Foothills.

EDUCATION AND OUTREACH

One of the objectives in the 2000 Boise Foothills Open Space Management Plan was to provide one location for information such as education, upcoming events, and volunteer programs. The FLC opened in 2005 on the site of the former McCord house in Hulls Gulch. The FLC was made possible through federal funds and many local businesses and nonprofits providing their goods and services. The building has many sustainable features including: Forest Stewardship Council certified wood; "smart" thermal windows; a passive solar system including southerly orientation, eaved clerestory windows, and dark-stained concrete floors; an active solar system of photovoltaic cells; heating and cooling via a ground-source heat pump; fluorescent lighting throughout the center, with several rooms on motion-detection systems; and zoned thermostats. The grounds are landscaped with native and drought-tolerant plants.



Operated by the City of Boise Parks and Recreation Department, the FLC invites students and community members to get out into the Foothills and better understand the surrounding natural environment. The main focus of the FLC is school-age education programs. There are currently 24 different lessons for teachers to choose from. In 2012, more than 10,000 students were served through those programs. The FLC promotes its events using an email list of close to 1,800 names.

The FLC also offers service learning and volunteer opportunities for all ages and abilities. All programs are interactive and are designed to give participants a new look at our local environment and ways to reduce our impact on the planet. Every month are second Saturday events that are free and family-friendly events. Often the guest speakers at the Second Saturday events are from other land management agencies or nonprofits in the community. From May through July, the FLC hosts Sunset Series, educational, or inspirational evening programs more geared for adults.

One of the ways the IDFG has engaged and educated many community members is through extensive volunteer projects. The IDFG accesses their list of 500 in southwest Idaho to build fences, remove debris, plant bitterbrush, perform surveys, help others discover wildlife, and teach fishing and hunting skills.

Another unexpected avenue for educating homeowners adjacent to the Foothills has been the Harris Ranch development. The Harris family and the developer of Harris Ranch proactively initiated a comprehensive Wildlife Assessment and Mitigation Plan. Part of that plan requires every homeowner in Harris Ranch to pay a \$300 conservation fee when they buy their home – they can get \$200 of it back if they take part in a wildlife educational or volunteer program. This incentivizes homeowners to learn more about the Foothills resources.

MANAGEMENT CHALLENGES

Public land managers, organizations, and special interest groups have identified several management challenges involving education and public involvement. A few of these challenges are discussed below.

- **Coordination among agencies.** Though the coordination among agencies and nonprofits has improved the last decade, there are plenty of opportunities for further coordination. Agencies have made suggestions for lessons they would like to see taught at the FLC in the future.
- **Volunteers.** The number of volunteer hours spent in the Foothills has increased this past decade. R2R uses volunteers for their trail ranger program, adopt-a-trail, trail surveys, and trail maintenance opportunities. The FLC uses volunteers for improvements on the grounds (gardens, Story Trail, and restoration projects); teaching; and special event help. IDFG uses volunteers on a regular basis as mentioned above. There are plenty of opportunities for BLM, Ada County, and USFS to also use volunteer labor, and perhaps the agencies that have successfully used volunteers in the past can help these agencies in their future efforts. Other organizations, such as SWIMBA and REI, would like to assist with volunteer trail projects, organizing events to repair and develop new trails. One of the drawbacks for all of the agencies is the amount of time needed to dedicate to soliciting and managing volunteer programs, particularly one-day volunteer projects. Having a designated multiagency volunteer coordinator for the Foothills through whom all projects would be organized would be a tremendous asset.
- **Open space clearinghouse for public use.** An open space clearinghouse for public use will be a compilation of updated information regarding the Foothills. Public access to a current database of open space resources could be used to teach property owners and public land managers about resources important for conservation and identify other important resource use issues and opportunities. The database could also be used by conservation organizations and land trusts in pursuing conservation options with property owners, by developers in preparing master plans and Planned Unit Development applications, and by public land agencies in prioritizing lands of higher resource value as new information becomes available. To be effective, GIS maps and studies will continually need to be updated. Also, managers must maintain this information in one location to remain consistent with the goals of this 2014 Plan.



- **Funding.** Improve funding to meet public expectations.
- **Awareness of upcoming events.** The agencies need a way to better communicate with the public about upcoming events and projects. There is no common public information officer, so it takes significant level of coordination among the various agencies to put out information to the public. It would be beneficial to have a designated website, a regularly scheduled open house, a newsletter, or a listserv that could be shared among all agencies to publicize future happenings.
- **Staff.** During the recent downturn in the economy, a few agencies had to reduce their staff through layoffs or not hiring for open positions. At the same time, the agencies have seen an increase in Foothills use and higher public expectations for management, public involvement, and facilities.

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REFERENCES

Gordon, David. Ridge-to-Rivers Trail Coordinator. March 15, 2013. Personal communication.

Grant, Julia. Foothills & Open Space Manager, City of Boise. April 5, 2013. Personal communication.

Michael Young, Volunteer Coordinator, Idaho Department of Fish and Game. April 5, 2013. Personal communication.

Harris Ranch website

IDFG website

Boise Environmental Education website

5-3 PRESERVE EXISTING PUBLIC LANDS AS PUBLIC OPEN SPACE

This section is based on MOU Object 6. It assesses the benefits, constraints, and criteria for conducting land exchanges that contribute to preserving and perpetuating open space land opportunities within Foothills public lands. The *Interagency Foothills Management Plan* identifies those agencies currently negotiating land exchanges. The plan also identifies conditions and criteria necessary to encourage further efforts that contribute positively toward making the Foothills a sustainable and viable open space management area for future generations to use and enjoy.

MANAGEMENT OF LAND EXCHANGES

AGENCY APPROACH TO LAND EXCHANGES

Land exchange in the Foothills involves trading property with high resource value for land situated elsewhere that has a corresponding value to its seller. An agency could have surplus property in an area inappropriate to its mission or function that would be better served by exchanging that parcel with another public agency. Unfortunately, the surplus property might not meet criteria necessary to warrant agency involvement in the exchange process. For example, the IDL wants to pursue land exchanges with agencies such as the BLM and other interested agencies. BLM, on the other hand, has specific criteria that land must meet to be considered eligible for exchange. These criteria require that the land have the following resource values:

- Big game habitat.
- Identified rare and endangered plant species.
- Adequate access potential.
- Connection to adjacent public land.

For the IDL, the exchange process has been challenging. Under the objectives of the MOU, the *Public Land Open Space Management Plan for the Boise Foothills* will help agencies cooperatively oversee and efficiently manage the resources of the Foothills. This management includes facilitation of land exchanges if such exchanges enhance management opportunities through the area. Various funding sources could also facilitate exchanges by paying for staffing or negotiating costs if these factors are inhibiting progress in this direction. A mediator could also facilitate completion of exchanges. An appointed lead agency could initiate and facilitate negotiation of “win-win” exchanges if these exchanges meet the goals, objectives, or recommendations of the plan.

Agencies involved in land exchanges within the Foothills also include the IDFG and Ada County. Boise City is involved in land exchanges with the IDL over two dam sites that were created as a result of the 1996 Foothills fire. The USFS is not opposed to divestiture of properties or land exchanges with its current Foothills properties.

Agencies’ approach to land exchanges are summarized as follows:

IDL. Uses the land exchange process to generate income to meet the objectives of the State Land Board. Preference is given to land exchanges with interested public agencies. Other

possibilities include auction sales to private individuals if other exchanges cannot be facilitated within a reasonable time.

USFS. Allows for divesting of lands located within the Foothills.

BLM, Cascade Resource Area. Is receptive to land exchanges that meet all necessary agency criteria (including big game wildlife habitat, areas of substantially known rare and endangered species, critical access points, and parcels connecting with existing BLM properties).

City of Boise. Is considering another levy or bond for open space in the Foothills and possibly other areas of Boise..

PUBLIC EDUCATION

Education and outreach about the land exchange process will help the public better understand and support land exchanges that perpetuate open space management values.

REFERENCES

POLICY DOCUMENTS

Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.

City of Boise. 1994. Boise City Comprehensive Park and Recreation System Plan: Goals, Objectives and Policies.

City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives and Policies.

City of Boise. March 1997. Boise City Foothills Policy Plan. An amendment to the Boise City Comprehensive Plan. Boise, ID.

INTERVIEWS

Breuer, Tim. Ridge-to-Rivers Trail Coordination, APA. May 4, 2000. Personal communication.

Dudley, Mary. Volunteer Coordinator, Idaho Department of Fish and Game. May 9, 2000. Personal communication.

Fend, John. District Manager, Cascade Resource Area, Bureau of Land Management. March 22, 2000. Personal communication.

Neitzel, Suzi. Acting State Historic Preservation Officer, Idaho Historical Society. March 22, 2000. Personal communication.

Rex, Elaine. Assistant Volunteer Coordinator, Idaho Department of Fish and Game. May 8, 2000. Personal communication.

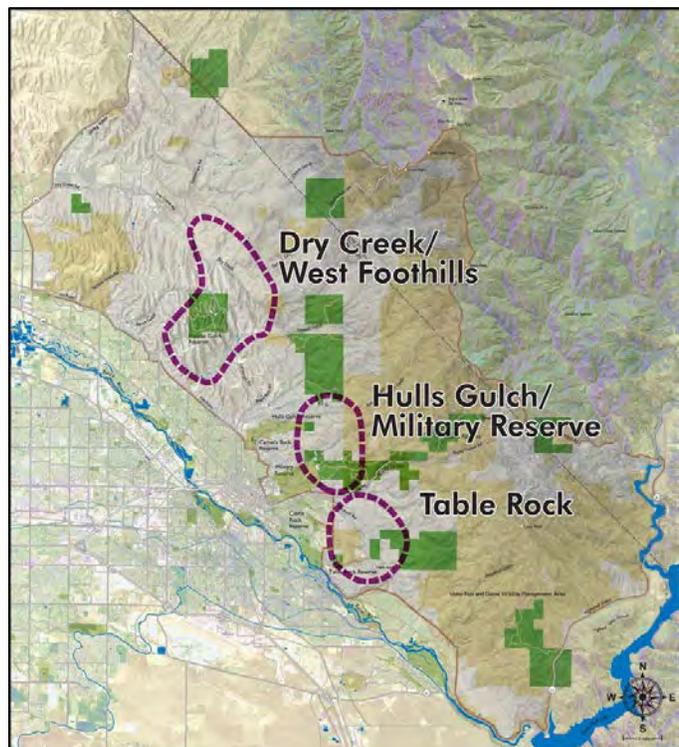
5-4 ACQUIRE ADDITIONAL OPEN SPACE

This section is based on MOU Objective 7. It assesses the benefits and constraints of acquiring additional open space lands as appropriate to agency mission and function.

Several acquisition and planning tools are available for carrying out the actions of this plan. These tools range from government ownership options, transfer of title options, nonprofit purchase, and ownership options to voluntary land-conservation techniques and existing land development regulations. Other tools include capital infrastructure planning and development that encourage and guide land development toward areas identified as better suited for development while preserving environmentally sensitive lands and lands identified as valuable and important to the community for open space.

THE NEED FOR PUBLIC OPEN SPACE

The BLM estimates that approximately 1 million people use the Foothills annually. The Foothills management area encompasses approximately 80,467.3 acres across the Foothills. Of this land, approximately 42,397.3 acres are privately owned and approximately 38,070.0 acres are public lands. Areas for possible acquisition need to be evaluated for access and connection to public lands as well as for preservation of big game wildlife habitat, upland birds and small game habitat, rare and endangered plant species, streamside areas, important trails and trail connections, and other conservation, recreation, and open space objectives. The City of Boise, Ada County, and the state can use open space acquisition methods to help secure sensitive open lands or important recreation properties from willing private landowners, as directed under the plan. The federal agencies will help facilitate and support acquisition activities for which the group collaboratively identifies as important for meeting the vision of the agreement and objectives of the *Boise City Foothills Policy Plan*.



ACQUISITION AND PRESERVATION TOOLS

There are various methods for acquiring additional parcels of land. One method would be for one agency to purchase and manage all public lands in the Foothills. However, financial resources are limited, the Foothills area is large, and agency missions reflect appropriate varied range of management goals and objectives. In most cases, methods must address costs for both acquisition and maintenance. In today's financial climate, public-private partnerships can add support for

acquiring land. Several options are available to public agencies, nonprofit organizations, and private landowners who want to acquire additional open space properties (see [Table 26](#)).

TABLE 26 ACQUISITION ALTERNATIVES AND ASSOCIATED BENEFITS AND CONSTRAINTS

Available Tools	Description	Benefit	Constraint
Free Simple Purchase	Outright purchase of full title to land and all rights associated with land.	Owner has full control of land. Might allow for permanent protection and public access.	Acquisition could be costly. Removes land from tax base. Ownership responsibility includes liability and maintenance.
Installment Sale	Agreement between landowner and purchaser whereby the landholding agency either pays for the land in annual installments or buys a portion of the lands each year.	Financial advantage to landowner is that the income is spread over a number of years, which could allow the owner to spread the taxable capital gains over a period of years and minimize the amount of tax that must be paid.	Weaknesses include the long-term financial commitment to a mortgage and owner's lien right on the land.
Conservation Easement	A partial interest in property transferred to an appropriate nonprofit or government entity either by gift or purchase. As ownership changes, the land remains subject to the easement restrictions.	Less expensive for purchasers than fee simple. Landowner retains ownership and property remains on tax rolls, often at a lower rate because of restricted use. Easement could allow for some development. Potential income and estate tax benefits from donation.	Range of options for degree of development constraints and public access allowed and the terms of a specific easement; option for public access requires landowner approval. Easement must be enforced. Restricted use might lower resale value.
Fee Simple Leaseback	Purchase of full title and leaseback to previous owner or other. Subject to restrictions.	Allows for comprehensive preservation program of land banking income through leaseback. Liability and management responsibilities assigned to lessee.	Leaseback would not necessarily provide public access. Land must be appropriate for leaseback.
Lease	Short- or long-term rental of land.	Low cost for use of land. Landowner receives income and retains control of property.	Lease does not provide equity and affords only limited control of property. Temporary nature of lease does not assure permanent protection.
Undivided Interest	Ownership is split between different owners, with each fractional interest extending over the whole parcel.	Prevents one owner from acting without the consent of the other(s).	Several landowners can complicate property management issues, especially payment of taxes.
Transfer of Title Options			
Outright Sale	Land is sold at a price equivalent to its value at highest and best use.	Highest sale income (cash income) to seller.	Expensive to acquire.
Bargain Sale	Property is sold at less than fair market value.	Tax benefits to seller since difference between fair market value and sale price. Sale price is considered a charitable contribution. Smaller capital gains tax. Allows for permanent protection without direct public expenditure. Tax benefits to seller since property's fair market value is considered a charitable contribution.	Seller must be willing to sell at less than fair market value. Bargain sale price might be high.
Other Donation	A donation by landowner of all or partial interest in the property.	Management responsibility for acquiring entity often deferred until donor's death. (Reserved Life Estate: Landowner retains use but receives tax benefits from donation.)	A receiving agency of a donation must be willing to accept donation and be capable of management responsibilities.
Escrow Commitments	Several neighbors donating conservation easements together. This allows tentative commitment but does not finalize until neighbors also commit.	Can place conservation easements in escrow.	Can be a significant waiting period and relies heavily on neighboring commitment.
Tax Foreclosure	The right of the government to take private property for public purpose upon payment of just compensation.	Limited government expenditure.	High acquisition costs. Can result in speculation on target properties. Potentially expensive and time-consuming litigation.
Agency Transfer	Government acquires land by tax payment default.	Agency transfers limit the need for expenditure for open space acquisition.	Land acquired from tax foreclosure might not be appropriate for public open space, but can be sold to provide funds for open space acquisition. Cumbersome process.

5-1. MANAGEMENT AND MAINTENANCE

Available Tools	Description	Benefit	Constraint
Restricted Auction (Nonprofit)	Certain government agencies might have surplus property inappropriate for their needs that could be transferred to parks for open space use.	Property still sold to highest bidder but restriction lowers price and competition.	Surplus property available might not be appropriate for open space use or the owning agency might want to sell to a private party to generate revenue.
Payment in Lieu of Dedication	Government can restrict the future use of sale property to open space.	New construction pays for its impact on open space.	It could be difficult for a nonprofit to convince the government that a restriction will serve to benefit the public. Purchase price might still be expensive.
Special Assessment District	Local government requires developers to pay an impact fee to a municipal trust fund for open space acquisitions. Special tax district benefited by an open space project.	Users finance acquisition and management.	Acquisition funds dependent on development. Might be lack of accountability for funds. Legality of methods depends on relationship of open space to new development. Increases taxes. Timely and costly to implement.
Serial Levy	A proposed tax that would raise approximately \$10 million over a two-year period for purchase or preservation of important habitat, conservation easements, access, and connection to significant public land parcels from existing Foothills landowners.	A proposed tax that would raise \$10 million toward the protection of important Foothills resources.	Would cost Ada County homeowners approximately \$90 over a two-year period. Companies throughout the city and county would pay more than half of the \$10 million tax. The levy dollars would need to be carefully allocated to ensure significant wildlife and riparian areas are used to greatest public benefit possible.
Tax Return Check Off	On state income tax forms, a filer could appropriate a small amount of taxes owed toward revenues for natural acquisitions.	Convenient and successful means of generating sufficient financial resources.	Vulnerable to competition from other worthwhile programs.
Other Funds/Taxes	Taxes on sales and natural resource exploitation as well as revenue from fees and licenses can be used toward park acquisitions.	With income from fees and licenses for boat, off-road vehicle and snowmobile use, park entry/parking and hunting, users pay for resources they use.	Revenues from taxes can be easily diverted from other uses unless firmly dedicated to park and recreation purposes. Fees create pressures for money to be spent on special interest uses.
Transfer of Development Rights	Under an established program, an owner can sell development right to another landowner whose property can support increased density designated lands.	Cost of preservation absorbed by property owner who purchases development rights.	Difficult to implement within the community. Preservation and receiving areas must be identified.
Sale of Transfer of Tax Default	Sale of tax default property can provide a fund for open space acquisition. Also, if site meets criteria, it can be transferred to appropriate agency for park use.	Funds are acquired with little cost to taxpayers.	Need to ensure that sale proceeds are specifically allocated to open space acquisition. Might not provide a significant income. Very political process.
Nonprofit Purchase and Ownership Entity Options			
Nonprofit Acquisition/Conveyance to Public Agency	A nonprofit can help to implement government programs by acquiring and holding land until a public agency is able to purchase.	Nonprofit can help to implement government programs by acquiring and holding land until a public agency is able to purchase.	Must have a public agency willing and able to buy within a reasonable time frame.

REFERENCES

Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.

Boise City Planning and Development Department. May 1998. The Boise Foothills: Principles and Strategies for Open Space Preservation. Discussion draft to the Mayor and City Council.

5-1. MANAGEMENT AND MAINTENANCE

City of Boise. 1994. Boise City Comprehensive Park and Recreation System Plan: Goals, Objectives and Policies.

City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives and Policies.

5-5 PUBLIC SAFETY AND RESOURCE CONSERVATION

This section is based on MOU Objective 8. It assesses services, opportunities, and constraints for continuing and enhancing coordination and funding of public safety-related activities in the Foothills. The *Public Land Open Space Management Plan for the Boise Foothills* contains several objectives addressing life, health, and safety needs, as well as provisions for natural resource conservation and public use of the Foothills. The agencies need to ensure that issues of wildfire, law enforcement, public safety, and resource conservation keep pace with the region’s growth and increased use of the Foothills, particularly on public lands.

OVERVIEW OF PROGRAMS AND JURISDICTIONS

Because the project area is near urbanized areas, interwoven rural lands, and suburban residential development, and because recreational use is growing, public safety and resource protection for all lands in the project area must be addressed. The project area’s relative isolation, relatively low level of law enforcement presence, closeness to urban areas, and relative ease of access provides opportunities for inappropriate and illegal activities to occur. Therefore, existing provisions for public safety services to address threats to public life, health, and safety must continue. However, limited personnel, higher priority service area, and relatively low numbers of people using the Foothills mean that agencies can only afford to provide a limited enforcement presence to address public safety and conservation issues.

Various interagency agreements already exist related to fire, law enforcement, and accident-injury rescue services within the Foothills. Existing cooperative programs for public safety should continue to be supported and funded, since they provide a coordinated, cost-efficient delivery of services. Though the number of people carrying cell phones has helped improve fire, law enforcement, and injury rescue reporting, public safety would likely be improved if an enhanced presence by a public agency were implemented.

[Table 27](#) provides a general overview of the types of public life, health, and safety services provided by each agency within the project area.

TABLE 27 PROGRAMS AND RESPONSIBILITIES FOR PUBLIC SAFETY SERVICE IN THE FOOTHILLS PROJECT AREA

Services Agency	Fire	Law Enforcement	Resource Conservation	Rescue	Other	Comments
BLM	I	I	I			Resource use, grazing, and monitoring programs
USFS	I	I	I			Resource use, grazing, and monitoring programs
IDFG	II	I	I			Enforces wildlife protection and hunting laws, Unit 39 WMA
IDL	II					

Services Agency	Fire	Law Enforcement	Resource Conservation	Rescue	Other	Comments
Ada County		I		I	I	Emergency Management Disaster Program, animal control
Boise County		I		I	II	Volunteer Fire District
Boise City	I	I	I	I	I	Open Space Reserves, flood-control facilities, water quality programs, animal control
Special Districts ¹	I		I	I	I	Flood District 10 facilities and programs, Ada Soil Conservation District programs

Key: I—Agency operates services and programs in accordance with charter with dedicated funding for personnel and equipment.

II—Agency funds activity through interagency agreement or by cooperative agreements.

¹ Special Districts include: Whitney Fire Protection District, Eagle Fire Department, North Ada County Fire & Rescue, Ada Soil Conservation District and Flood District #10.

FIRE

Fire is a potential threat at any time of the year in the Foothills, but the threat is especially high from July to September when moisture is low, vegetation is fully grown and dried out, and recreational use is greatest. Mapping of past wildfires in the project area suggests that most fires are associated with human activity close to Boise City limits (see Figure 16). Most of the larger fires in the Foothills have been accidental, caused by people through a combination of activities and circumstances.



Many factors influence the extent and intensity of fires in the project area, including wind, fuel loads, relative dryness, location, and time before the initial response by firefighters (when fires are quickly reported and attacked, quick containment and suppression are more likely). Fire can pose a serious and immediate threat to people living or recreating in the Foothills.

Fires also damage resources from the loss of vegetative cover and soil binding roots, which increases the risk of flooding, erosion, and other forms of environmental degradation. Finally, fire can displace both wildlife and recreation trail uses from affected areas until safety, vegetation cover, and natural resource protection measures are reestablished.

For most fires, each agency is responsible for the cost of recovery efforts on its respective lands. However, agencies make exceptions to this policy if the fires are especially large and intense, such

as the 1998 8th Street Fire. In that fire, federal emergency recovery funding was sought to reduce the threat to life and property.

All agencies in the project area participated in the *Boise Front Watershed Interagency Agreement and Operating Plan of 1997*. The agreement covered the eastern half of the Foothills project area, lands generally located between Bogus Basin Road and Highland Valley Road, and continuing up to Boise Ridge Road. The purpose of the agreement was to provide a cooperative basis for efficient and cost-effective fighting of wildland fires in the Foothills. The Lower Snake River District Office of the BLM maintained this agreement and coordinated an annual meeting of participating agencies to review and discuss costs, operational procedures, and need (Boise County fire suppression efforts are managed by several volunteer fire districts). Key provisions of the agreement included the following:

- Annual coordination of operating plans
- Mutual aid, communications, and cooperative training
- Sharing of facilities, equipment, and support services

To participate in this agreement, state and local agencies spent \$3 per acre in 2000; the total cost to state and local agencies for 2000 is \$45,198. In summer of 2000, participating agencies were moving toward separate agreements. As of the date of this document, not all actions have been finalized.

The increasing number of homes constructed where wildland areas and developed areas meet is of great concern to all fire protection agencies and districts. The priority for all firefighting efforts is to protect life. However, urban firefighters specialize in quick suppression of structure fires, whereas wildfire suppression efforts are focused on containment of fires to minimize burn extent and damage to the environment. Calling wildfire personnel and equipment to assist urban firefighting efforts and to protect structures during a wildfire reduces resources for the wildfire suppression effort, which can allow a wildfire to grow much bigger, increasing the threat of fire exposure to more homes and property.

Efforts by Boise City and Ada County to regulate development and require defensible space and fire-wise landscaping and building materials can help mitigate the potential effects of wildfire. However, retrofitting many existing homes for fire threats is not likely to occur. Ada County, Boise City, and perhaps Boise County, in cooperation with the various local fire protection districts should consider acquiring specialized interface fire suppression equipment and equipment for their use or funding supplemental interface suppression resources during the peak fire-danger season. Such a move could help limit the extent and cost of wildland fires when they do occur and would likely reduce costs to address post-fire effects on the community such as flooding and revegetation. The cost and benefits of this proposal should be evaluated and acted on through the existing cooperative aid agreements.

Fire Regulation Activities

Boise City and Ada County have adopted a ban on use of fireworks within the Foothills to help reduce the potential for wildland fire. The BLM, USFWS, and state agencies have adopted corresponding bans on their lands. Open fire pits are allowed on USFS lands in the project area, but

open fire pits are not allowed on any other public lands in the project area. Private landowners within Boise County or Ada County must secure a burn permit from the respective fire protection jurisdiction for any type of open fire.

Fire Prevention Activities

Annual operating plans for Boise City, BLM, and USFS include public relations activities targeting prevention of wildfires. The main tool used to help prevent wildland fires is education of users and homeowners located where wildland areas and developed areas meet. These agencies fund public service announcements and distribute educational pamphlets addressing topics such as “fire-wise” landscaping techniques, outdoor fire safety, and the costs of driving off-road. The Boise City Fire Department mails pamphlets to all city residents located within the Foothills to teach them about fire prevention for homes located next to wildlands. These programs might be delivered in a more cost-effective manner if coordination and costs and administration were shared as a component of a new or existing cooperative agreement.

LAW ENFORCEMENT AND PUBLIC SAFETY

Because the project area is near urbanized areas, interwoven rural lands, and suburban residential development, and because recreational use is growing, public safety and resource protection for all lands in the project area must be addressed. The project area’s relative isolation, relatively low level of law enforcement presence, closeness to urban areas, and relative ease of access provides opportunities for inappropriate and illegal activities to occur.

These factors place a great strain on Boise County resources when Ada County residents require rescue or law enforcement response in the upper portions of the project area that are located within Boise County. Trespass, particularly illegal off-road use, vandalism, inappropriate firearms use, littering, violation of seasonal closures, underage drinking, and dogs off-leash are a few of the more common complaints that law enforcement and conservation personnel receive when working in the Foothills. Much of the effects from motorized off-road use have been reduced, or pushed out of the Foothills to other areas, through ongoing enforcement efforts.



Limited personnel and equipment, coupled with the need to respond both to higher-priority calls and relatively low-threat incidents, affect service levels in the project area. The federal agencies provide a very limited enforcement presence and, therefore, try to focus their activities at times of the year when certain types of illegal activities typically occur. For example, the Mountain Home Ranger District and the Cascade Resource Area of the BLM have a combined seven full-time professional law enforcement staff to patrol the many thousands of acres under their control. The Ada County Sheriff’s Department has 1.5 deputies dedicated to Foothills patrol, and these deputies

patrol the area primarily between Memorial Day and Labor Day, with a focus on weekend patrol. In addition, the Ada County Sheriff's Department operates trail motorbike patrol in the spring, providing an example of targeted enforcement activity aimed at controlling illegal off-road activities. The BLM provides some funding to Ada County for increased patrol of their lands.

Law enforcement services and activities in the project area are necessary to protect lives and property, respond to emergency situations, and maintain laws and social order. Ada County maintains an Emergency Response 911 program that handles most emergencies and law enforcement calls that occur in the project area. Police, sheriff, fire, and ambulance services are dispatched through this system, based on available staffing and the seriousness of the threat to life or public safety.

The Ada County Sheriff's Department has the largest jurisdiction in the project area, covering the majority of public lands in the project area. The Boise City Police Department, Boise City Fire Department, and full-time law enforcement officers for the IDFG, BLM, and USFS also have jurisdiction in the project area. The law enforcement community works cooperatively to ensure a quick response to emergency situations.

In addition to professional law enforcement staff, the BLM, USFS, and IDFG have uniformed staff that are trained and have limited authority to enforce rules and issue citations for illegal activities occurring on their lands. These staff members are unarmed and have principal duties other than law enforcement. Nevertheless, they do provide increased presence when they work in the area, which can promote protection of people and public lands.

In the project area, Ada County Paramedics is the lead agency charged with responding to emergency calls involving injury accidents that occur within the Foothills. These calls are dispatched from the Ada County Paramedics station (located at 17th and Ridenbaugh Streets). Ada County Paramedics have 4-wheel drive ATVs loaded on trailers and available to respond to injury accidents occurring in the Foothills. Occasionally, emergency response crews must walk to an accident site because access can be limited by factors such as trail access, cliffs, and wet conditions.

In an average year, paramedics are called to about 12 emergency medical incidents in the Foothills project area. Ada County Paramedics are responsible for determining whether to call for helicopter life flight services. The typical cost to the injured party for paramedic rescue is about \$400; if helicopter life flight is needed, the cost of rescue can increase to \$5,000.

CONSERVATION

Relatively little environmental monitoring is conducted in the Foothills, though anecdotal evidence and limited photo trend data suggest that degradation of natural resources is occurring in the area. This degradation is believed to be caused primarily by a combination of insufficient maintenance, insufficient management and increased recreational usage.

The BLM and Boise City have separate conservation agreements with the USFWS for Aase's onion, Mulford's milkvetch, and slick-spot peppergrass, which are rare or threatened plants found in the Foothills. The focus of these conservation agreements is to protect and monitor species

through cooperation and shared professional resources. The agreements provide for no specific additional funding for the agencies, though USFWS has secured funds in 2000 to reinventory and monitor known rare plant sites. Only sporadic monitoring of a few rare plant sites has been conducted since a comprehensive inventory of sites occurred in 1992.

The IDFG undertakes an annual count of big game animals using the Foothills winter range and participates in an ongoing raptor study that has a capture station located near the Boise Ridge off Lucky Peak. At this time, the only vegetation monitoring activity occurring in the Foothills is the monitoring of revegetation test plots associated with the 8th Street Fire recovery efforts. This monitoring is being directed by the BLM. Water quality in the area is not monitored to determine whether watersheds are improving or declining, though the IDFG has assessed the streams within the WMA to see whether they are functioning properly.



The BLM, USFS, and IDFG impose seasonal road and recreation closures on roads and trails in their respective jurisdictions to protect wintering big game and to minimize damage to the roadbed of Sunset Peak Road. Seasonal closures generally go into effect between mid-December and May, though more work is needed to help recreation users understand which trails are closed and when they are closed because the closure dates vary from location to location. Managers can consider developing daily and seasonal closure policies that are more consistent across the Foothills.

The spread of invasive and noxious weeds (such as medusahead rye, whitetop, and cheatgrass) is a problem that threatens the quality and suitability of habitats needed by various wildlife species.

While all agencies attempt to monitor the various aspects of environmental health on their lands, such efforts are usually secondary to higher priorities. The identification of key environmental features, which can serve as effective indicators of ecological health in the Foothills, will help managers and agencies to determine the status and priority for action.

RECREATION AND OTHER USES

Recreation is the dominant use of the Foothills, and is growing now and is likely to continue to increase. Trailhead surveys are one helpful means of understanding the character of this use, but a more complete and comprehensive monitoring program would help to better understand recreation trends and issues. This in turn could provide valuable insights into strategies to meet recreational needs while minimizing impacts on Foothills resources.

CONCLUSION

A uniform public information and signage plan for trailheads and trails in the project area is needed to improve public safety and reporting of conservation challenges. An alternative might be to provide emergency phones at trailheads. However, the costs of installation, operation, maintenance, vandalism, and liability would have to be met for this alternative to be feasible. Fire, police, and Ada County Paramedics indicated support for implementing a uniform signage program for all R2R trails and trailheads to help people better report the location of fires, accident victims, and activities requiring quick law enforcement or emergency response. Whenever the R2R trail map is republished, it will be made available to all agencies identified in [Table 27](#) to aide their mission.

Greater public presence in the Foothills is needed to address increased improper use of public lands in the Foothills. The costs and benefits of expanding existing public safety patrols and services versus starting a Foothills conservation program can be evaluated by the agencies. Creation of a Foothills conservation program could increase public presence and comprehensively address needs for maintaining Foothills open space lands and trails, promoting user safety and communications, providing user and resource educational opportunities, conducting resource monitoring, and encouraging adherence to area rules and guidelines for appropriate use. Using uniformed employees would likely increase public presence in the project area.

REFERENCES

- Boise City Community Planning and Development Department. 1994. Foothills Plan Background Report.
- City of Boise. 1994. Boise City Comprehensive Park and Recreation System Plan: Goals, Objectives and Policies.
- City of Boise. 1997. Boise City Comprehensive Plan: Goals, Objectives and Policies.
- Duffner, Tim. Idaho Department of State Lands, Boise Office. May 2000. Personal communication.
- Grunder, Scott. Biologist, Idaho Department of Fish and Game, Southwest District. May 2000. Personal communication.
- Hamilton, Steve. Battalion Chief, Fire Station #1. May 2000. Personal communication.
- Irvan, Mike. Deputy Director, Ada County Paramedics. May 2000. Personal communication.
- McClure, John. Deputy Chief Fire Operation, Boise City Fire Department. May 2000. Personal communication.
- Raney, Lt. Gary. Ada County Sheriff's Department. May 2000. Personal communication.
- Rose, Barry. PIO, Cascade Resource Area, Bureau of Land Management. May 2000. Personal communication.
- Tripp, Larry. District Ranger, Mountain Home Ranger District. May 2000. Personal communication.