



Boise River Resources

Management & Master Plan

2014



**Parks &
Recreation**

ABSTRACT

There have been many changes in the Boise River corridor since the first Boise River Resource Management and Master Plan was adopted by the City of Boise in 1999. This updated plan describes the current conditions and addresses future opportunities and challenges that the City of Boise Parks & Recreation Department will face as it continues to manage the river corridor's natural resources for the vast number of users.

TIPS FOR READING THIS DOCUMENT

Sample Link



If you are reading this document electronically, click on an underlined word to link to more information. If reviewing a printed copy, refer to the Appendix for an alphabetical list of the URLs for the websites, web pages, and documents referred to in this Plan.

Acronyms Used in this Plan:

BEE	Boise Environmental Education
BFD	Boise Fire Department
BPR	Boise Parks & Recreation Department
BPD	Boise Police Department
BPW	Boise Public Works Department
BPDS	Boise Planning & Development Services
FACTS	Foundation for Ada Canyon Trail Systems
IDFG	Idaho Department of Fish and Game
IPM	Integrated Pest Management
NPDES	National Pollution Discharge Elimination System
MOA	Memorandum of Agreement with The Wetlands Group
TWG	The Wetlands Group
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation

Plan Boise River Resource Management and Master Plan

Acknowledgments



The Boise Parks & Recreation Commission appointed agency representatives, business owners, conservation and interest group members, recreationists, water managers, and others to participate on the steering committee to update the Boise River Resource Management and Master Plan. The steering committee reflects the broad interests of the public. Its members identified issues, examined management choices,

and made policy choices and recommendations that will affect the river corridor, Greenbelt path, and future recreational opportunities.

Steering committee members volunteered many hours to attend working meetings, to participate in a field trip along the Boise River, to participate at public meetings, and to share their expertise and feelings for the river corridor.

Steering Committee Members

Rex Barrie	<i>Watermaster, Water Dist. 63</i>
Jill Baum	<i>Boise River Enhancement Network</i>
Andy Brunelle*	<i>Trout Unlimited</i>
Jo Cassin	<i>Owner, Idaho River Sports</i>
Tom Chelstrom*	<i>Canoeist, recreationist</i>
Paul Collins*	<i>Recreational boater, Friends of the Boise River</i>
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Christy Jordan	<i>Boise State University</i>
Scott Koberg	<i>Director, Ada County Parks and Waterways</i>
Joe Kozfkay	<i>Regional Fisheries Manager, Idaho Department of Fish and Game</i>
Steve Myers	<i>Captain, Boise Police Department</i>
Jim Neill	<i>Developer</i>
Liz Paul	<i>Idaho Rivers United</i>
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Jennifer Tomlinson	<i>Boise Planning and Development Services</i>
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**Member of 1999 and 2014 Boise River Resource Management and Master Plan steering committee*

Boise Parks & Recreation staff members who guided the planning effort:

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*Thank you to members of the public who attended
public meetings or submitted comments about the Plan.*



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Executive Summary

There have been many changes in the river corridor since the first Boise River Resource Management and Master Plan was adopted by the City of Boise in 1999. This updated plan describes the current conditions and anticipates future opportunities and challenges that the Boise Parks & Recreation Department (BPR) will face as it continues to manage the river corridor's vast number of users and diverse natural resources.

The primary goals of this Plan are to protect and enhance public safety and health, to provide recreational opportunities, and to protect natural resource values of the river corridor. Over-arching strategies that apply to all areas of this plan include cooperating with other agencies, including irrigators, and creating partnerships with public and private entities.

From June 2013 through June 2014, a steering committee of 21 community members met to review, discuss, and develop the updated Boise River Resource Management and Master Plan. Steering committee members consisted of people from adjacent communities, other city departments, an irrigation organization, nonprofit organizations, state agencies, federal agencies, recreationists, and businesses.

The river corridor planning area extends about ten miles, from the eastern city limits near Eckert Road downstream to the city limits approximately a quarter-mile east of Glenwood Bridge. An additional half-mile of riverfront,

located behind the West Boise Wastewater Treatment Plant, is included in this plan.

This updated Plan includes seventy-seven recommendations in four management areas – public safety, recreation, natural resources, and education and interpretation. A number of the recommendations overlap management areas. A matrix of recommendations shows where recommendations apply to more than one management area.

This Plan addresses the widespread popularity of the Greenbelt path and river corridor that creates the potential for crowding and resource degradation. In addition, the recommendations remain flexible in order to respond to changes in society, technology, and trends in recreational pursuits.

The Plan was reviewed and approved by the BPR Board of Commissioners on Aug. 21, 2014. The Plan was reviewed and approved by the Boise City Planning and Zoning Commission on **DATE**. The Boise City Council gave final approval and adopted the plan by resolution **NUMBER** on **DATE**.

Information about the plan is available on the BPR website. BPR staff and Commissioners will review the plan every two years in order to document what has been completed, to readjust priorities, and to recognize emerging management issues. Plan updates are anticipated every ten years or less.



A family crosses the 36th Street pedestrian bridge near the Boise River Park.

Introduction

1. Background

There have been many changes in the river corridor since the first Boise River Resource Management and Master Plan (Plan) was adopted by the City of Boise in 1999. Some of the changes include the creation of the Volunteer Greenbelt Patrol, two vehicle bridges, two pedestrian bridges, and construction of the Boise River Park and Marianne Williams Park.

This updated Plan describes the current conditions and anticipates future opportunities and challenges that the Boise Parks & Recreation Department (BPR) will face as it continues to manage the river corridor's vast number of users and diverse natural resources.

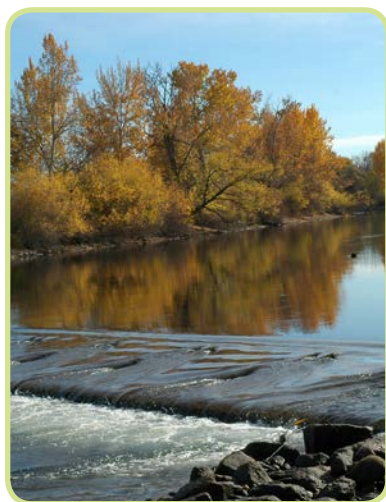
The primary goals of this Plan are to protect and enhance public safety and health, to provide recreational opportunities, and to protect natural resource values of the river corridor. Over-arching strategies that apply to all areas of this Plan include building partnerships with irrigators, other governmental agencies, and public and private entities.

2. Planning Process

A steering committee of 21 community members met 18 times from June 2013-2014. The members, listed on page 3, consisted of people from adjacent communities, other city departments, an irrigation organization, nonprofit organizations, state agencies, federal agencies, recreationists, and businesses.

Before making recommendations, the steering committee learned about river corridor issues and user trends. The members participated in tours of the river corridor. They discussed management and budget priorities for policies and projects. In addition, they heard presentations by people with expertise in key management areas.

Two public open houses were held to explain the Plan and to hear from citizens. An online open house, including an interactive planning area map and comment form, was available for people who could not attend the last open house in person. The BPR website included links to the steering committee's presentations and background information. In addition, the public could email comments from the website. These comments are listed in Appendix G.



The fall colors provide a picturesque view along the Boise River.



There have been many changes in the river corridor since the first Boise River Resource Management and Master Plan was adopted by the City of Boise in 1999.

Introduction

The Plan was reviewed and approved by the BPR Board of Commissioners and the City of Boise Planning and Zoning Commission. The Boise City Council gave final approval and adopted the plan by resolution **NUMBER on DATE**. These city bodies accepted public comments during the review process.

Information continues to be available from the BPR website. BPR staff and Commissioners will review the Plan every two years in order to document what has been completed, to readjust priorities, and to recognize emerging management issues. Plan updates are anticipated every ten years or less.

3. River Corridor Area

The river corridor area reviewed in this plan extends about ten miles, from the eastern city limits near Eckert Road downstream to the city limits approximately a quarter-mile east of Glenwood Bridge. An additional half-mile of riverfront, located behind the West Boise Wastewater Treatment Plant is included in this plan.

BPR has management responsibility for a 70-foot setback from the 6,500 cubic feet per second flow line of the Boise River. This area is defined as the Greenbelt setback. The river flow is measured at a gage near the Glenwood Bridge in Garden City. The paved path that runs through this area is commonly referred to as the Greenbelt. A Boise River System application is required for activities, even on private land, in the setback area.

Figure 1, illustrates the river corridor reviewed in this plan. Throughout this plan, the terms river right and river left describe on which side of the river a feature is located when a person is facing downstream. For example, the West Boise Wastewater Treatment Plant is on river left.

Maps 1 through 6 (Appendix A) show the planning area in three sections. Maps 1 through 3 depict existing conditions in the river corridor. Maps 4 through 6 show the locations of some of the proposed actions in implementing the Plan.

4. 1999 Report Card and Best Management Practices

As part of the planning process, the 1999 Boise River Resource Management and Master Plan was reviewed. Some recommendations from the 1999 Plan are ongoing efforts while other recommendations became best management practices. Some of the recommendations are in process or not complete. The recommendations are organized in six management areas, specifically Public Safety, Recreation, Wildlife, Fisheries and Riparian Zone; River Bank Stabilization, Treatments and

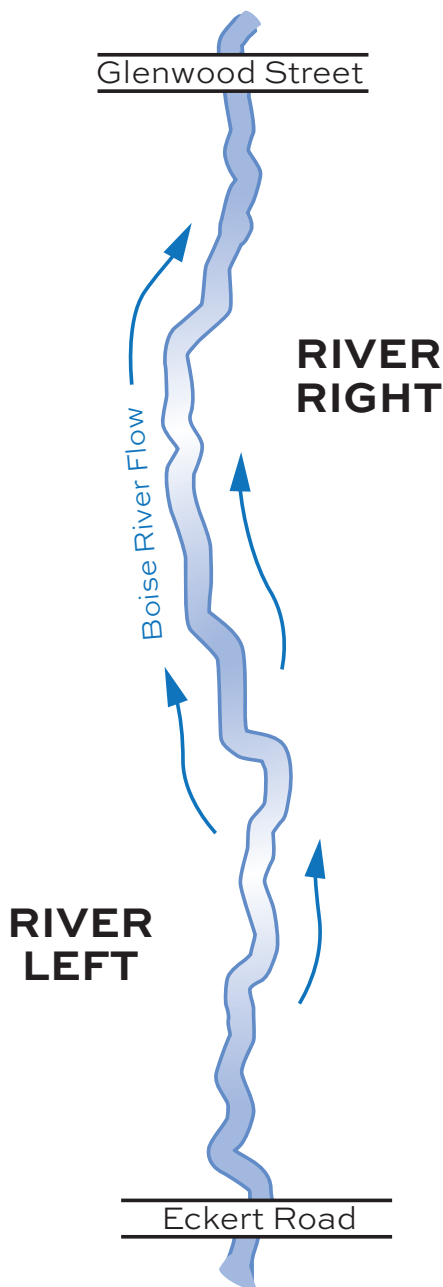


Figure 1.

Hydrology; Water Quality, and Mitigation Program. A list of Best Management Practices is included on pages 61-62.

5. 2014 Recommendations

The steering committee made 77 recommendations across four major management areas, specifically public safety, recreation, natural resources, and education and information. As shown on pages 50-53, many of the recommendations overlap more than one management area. Some of the recommendations can be addressed readily, such as expanding no-mow zones next to riparian areas. Other recommendations, such as adding staff, will require a budget appropriation.

Cooperating with other agencies and creating partnerships are over-arching strategies that apply to the recommendations in each management area. Throughout their discussions, the steering committee emphasized the importance of continuing to work with irrigators, local governments, internal and external agencies, nonprofit organizations, and businesses in order to accomplish the recommendations.

The following sections of the Plan are organized by management area. Following the discussion section, the recommendations are listed. The report card for the 1999 Plan and the current BPR best management practices are included on pages 54-62.



| Marianne Williams Park under construction. |





Richard Wanzer, recently retired, was a member of the Volunteer Greenbelt Patrol, riding his own bicycle, since the patrol began in 2001.

Public Safety

Public safety is the thread that weaves through all sections of the Boise River Resource Management and Master Plan. Protecting and enhancing public safety is one of the primary goals of this Plan. BPR works with the Boise Police Department (BPD) and the Boise Fire Department (BFD) to promote safety in the river corridor. Representatives from both agencies participated on the steering committee. Since the 1999 Plan was adopted, several positive changes in public safety have been implemented in the river corridor and riverside parks.

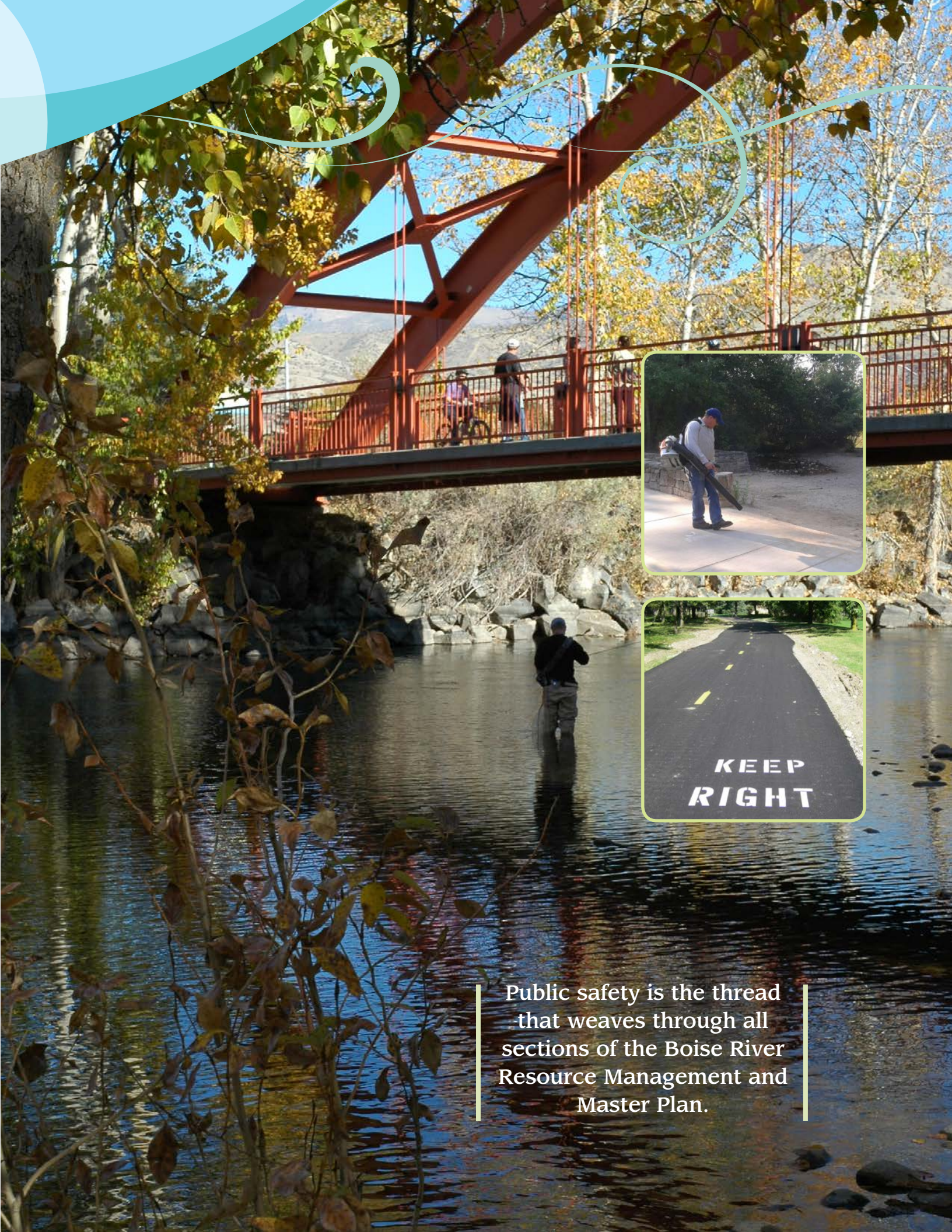
In 2001, the BPD created the Volunteer Greenbelt Patrol. Today, two part-time chief rangers manage the volunteers and equipment. Volunteers work closely with uniformed BPD officers, especially the bicycle patrol. The volunteers do not have detention authority nor provide advanced first aid assistance. The volunteers generally keep an eye on what is happening in the river corridor. They give directions, assist with minor bicycle repairs, and report vandalism, safety issues or illegal activities. In the first five months of 2013, they reported more than 1,700 contacts with Greenbelt users. For more information about the Volunteer Greenbelt Patrol, see page 12.

In 2009, the Boise City Council adopted an ordinance banning alcohol use within 250 feet of the Boise River. In addition, an ordinance was passed that prohibits glass containers on the river. Since the ordinances were adopted, there are significantly fewer alcohol incidents reported by the BPD and less litter to pick up during the annual Boise River Sweep.

The nine Public Safety recommendations are listed at the end of this section, page 16. The following discusses current procedures and the recommendations addressing public safety, including emergency accesses, lighting, distance marking, alcohol regulations, bridge design, and safety information.



Volunteer Greenbelt Patrol offers assistance to a group of elderly women exercising on the Greenbelt path.



Public safety is the thread
that weaves through all
sections of the Boise River
Resource Management and
Master Plan.

Public Safety

Volunteer Greenbelt Patrol

They are helpers, educators, ambassadors, and observers. They are on the Greenbelt every day, all year round. They are the Volunteer Greenbelt Patrol (VGP), a program coordinated by the Boise Police Department (BPD). Almost 50 people are among the ranks of those who ride bicycles or drive golf carts on the Greenbelt to help keep it safe.



A uniformed Volunteer Greenbelt Patrol member chats with an officer of the Boise Police Department bicycle patrol on the Greenbelt.

There are two types of volunteers, uniformed and non-uniformed. Uniformed patrol members attend more training and use the golf carts in scheduled shifts. Non-uniformed patrol members use bicycles, usually their own, and have an informal schedule. If they choose, special t-shirts are available for non-uniformed patrol.

1. Designated Emergency Access

The BFD is responsible for river rescues. The BFD would like at least one constructed emergency river access point between each diversion located in the planning area. Constructed ramps will increase response efficiency and make it easier to launch rescue craft.

As shown in Maps 1-3, Appendix A, emergency access is sufficient, but could be improved, especially as river-based recreation expands beyond the traditional tubing stretch. Emergency access sites are planned at the Broadway Bridge replacement and the proposed Greenbelt path between Americana Boulevard and the Main Street Bridge.

BFD requests designated emergency access sites that will not be blocked by recreationists and can be accessed at varied river levels. Installing removable bollards with locks limits access to the access site to authorized users who have a key. The most efficient access sites have a hardened boat ramp with room to turn around a vehicle pulling a boat trailer. BFD responds to water rescues with one deep-water rescue craft and two jet skis.

Motorized craft are prohibited from the Boise River by ordinance in Boise City and Ada County. However, authorized safety crews, rescue crews, and other agencies are permitted to use motorized craft when performing official duties.

As shown in Figure 2, rescue and emergency medical service calls are the most common of seven incident types tracked on the Boise River and Greenbelt. In the past few years, incidents have been concentrated in the vicinity of Ann Morrison Park and Veterans Park ponds, two high-use recreation areas.

When Boise River flows reach 3,000 cubic feet per second (cfs), BFD asks BPR to post signs at river access points. The signs alert the public that, according to Boise City code, river rescues can be billed to those rescued when the river is above general recreation flows. Public access to the river is not limited, but is not encouraged until flows drop to about 1,500 cfs.

As the river flow approaches 1,500 cfs, BFD, BPR, and Ada County staff survey the river between Barber and Ann Morrison Parks for hazards to tubers and boaters, such as over-hanging vegetation, downed trees, and debris. Developing a hazard removal protocol that is friendly to fish and wildlife is discussed in the Natural Resources section, page 41.

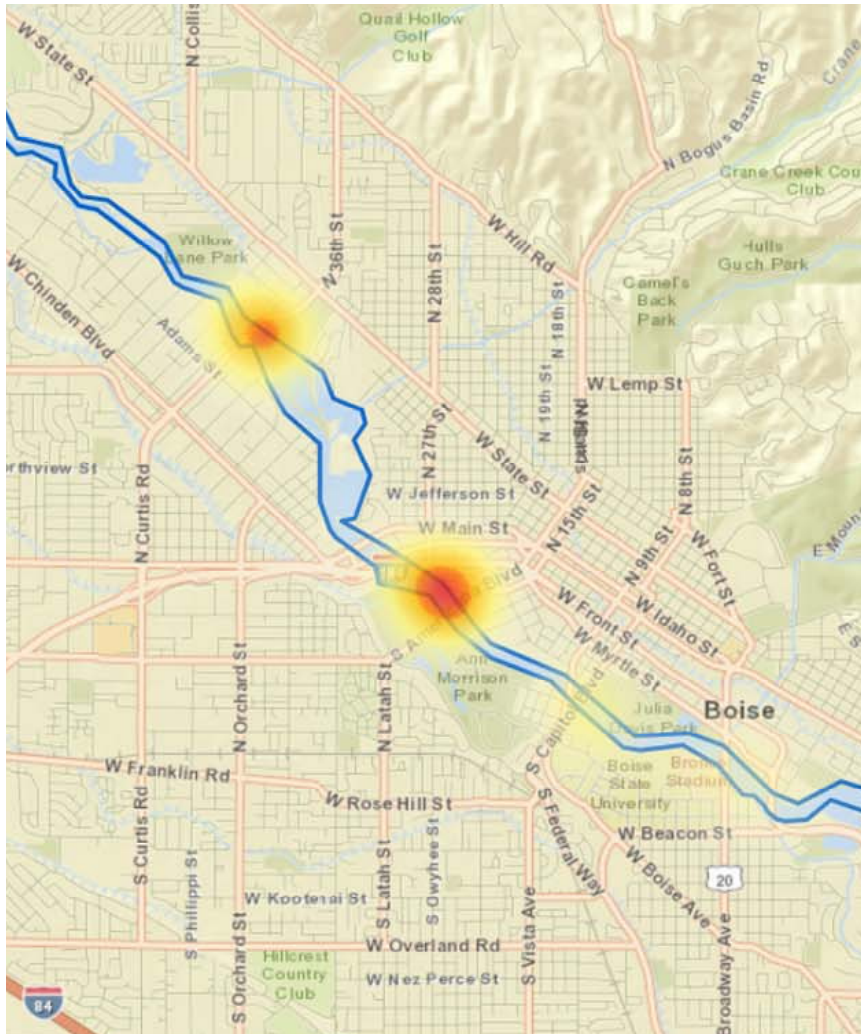


FIGURE 2. The “hot spot” map developed by the Boise Fire Department shows where they respond to most emergency calls in the river corridor.

After hazards are cleared, and officials agree, the river is declared open. However, the river is never declared safe for tubing and floating. It is the recreationist’s responsibility to determine the appropriate flow for his/her ability. Recreationists can go to websites that post current flow levels to determine if conditions are appropriate for their skill levels. The recommendations include adding these links to the BPR website:

- U.S. Geologic Survey
- National Weather Service
- All About Rivers

Summer shifts run from 10 a.m. to 8 p.m. During the winter, one shift operates from 10 a.m. to 3 p.m. Both types of volunteers must have a cell phone with them during their shift. VGP members call officers of the BPD or emergency services if an incident beyond the volunteer responsibility occurs. During the float season, patrol members keep watch on the river. The patrol’s golf carts carry flotation devices that the VGP uses in case of emergency.

In 2013, the uniformed volunteers contributed 4,679 hours on patrol and the non-uniformed volunteers contributed 2,445 hours on patrol. They report observations and incidents in a daily log, which is submitted to the BPD. They hand out badge stickers to children and encourage people to use good etiquette on the Greenbelt. They give directions. They report graffiti, health hazards, help with flat tires, bicycle accidents, and minor injuries.

Supervising Ranger Jon Corlett said, “After two to three years as a uniformed Greenbelt patrol volunteer, a person will have seen everything. It is not a volunteer position for the faint of heart.”

For more information about the Volunteer Greenbelt Patrol, go to the BPD website at <http://police.cityofboise.org/outreach/volunteer-with-bpd/greenbelt-volunteers/>

Public Safety

2. Lighting and Emergency Phones

Lighting the Greenbelt path has implications for public safety and for wildlife. Although increased lighting may increase safety for pedestrians and cyclists using the paths, it has a negative effect on wildlife using the riparian habitat. This Plan includes a recommendation to evaluate the need for and impact of lighting before it is installed. If additional lights are installed, lighting should be chosen that increases visibility and safety, but limits light pollution.

Currently, lighting in and near the Greenbelt path is limited. On river right, the Julia Davis Park path is lighted between the Broadway Avenue and Capitol Boulevard bridges. On river left, Boise State University (BSU) lights the path that goes through the campus from Broadway Avenue to Capitol Boulevard.

The types of incidents that police are called to vary depending upon the time of year, the location, and other variables. While lighting discourages some crime, lighting additional sections of the path that runs through the river corridor will invite more people to use it after dark.

Pedestrians and bicyclists use the paths at all times of the day, including people walking to evening events at BSU or downtown. BPR has received citizen requests for more lighting in the downtown core. Long-term plans include extending lighting upstream to Municipal Park and downstream to the Americana Boulevard Bridge.

BSU has installed emergency telephones along the path that runs through the campus. The 1999 plan recommended installing pay phones and emergency phones on the paved path. Because of the widespread use of cell phones, BPR does not plan to install emergency phones. In addition, maintaining an emergency phone program requires a large investment of time to assure that the phones remain in working order.

3. Distance Orientation System

Since the 1999 plan was adopted, the Boise River Greenbelt Distance & Orientation Trail System (DOTS) was implemented. DOTS are painted on the path on both sides of the river every tenth mile starting at the Eighth Street Pedestrian Bridge. The DOTS are a white circle with the direction and distance indicated. For example, the SW 0.3 DOT is on the south side of the river, 0.3 miles west of the Eighth Street Bridge. Bollards, with a You Are Here map, are placed every half-mile along the path.

BPR operations and maintenance staff use the DOTS daily. When making reservations, BPR uses the DOTS for marking event boundaries. The Volunteer Greenbelt Patrol uses the DOTS to locate and report incidents. Dispatch for police and fire uses a map linking the DOTS to the nearest street access to respond to emergencies. Garden City, Eagle, and Ada County have adopted the DOTS for their river path



Boise River Greenbelt Distance & Orientation Trail System (DOTS)

system. Recreationists, especially runners, have indicated they use the DOTS for measuring distance.

BPR's goal is to promote a measuring system that is common to adjacent jurisdictions and seamless to users. Some steering committee members, especially river users, advocate marking river miles on the path. The USGS has mapped river miles, starting with 0 (zero) at the Boise River confluence with the Snake River. This Plan includes a recommendation that local governments along the Boise River meet and decide on a common measuring and marking system.

4. Consistent Alcohol Regulations

In 2009, the Boise City Council adopted an ordinance banning alcohol use within 250 feet of the Boise River and another ordinance banning glass containers on the river. Ada County bans glass containers and alcohol use on the river by ordinance. The BPD reports that alcohol violations have decreased and that the summer river float has become more family friendly because of these ordinances.

Boise River Float Rules and Regulations posted at Barber Park in Ada County, the most commonly used tuber put-in, contain the same information as the Boise City code. Now that the 36th Street Pedestrian Bridge connects Garden City to Boise at the Boise River Park, common alcohol policies, regulations, and signs would be beneficial to river users and police.

As recreation use expands on the Boise River, a river patrol may be necessary. The BPD Bicycle Patrol Unit reports that alcohol violations are still the most commonly issued citations. Alcohol use and other violations on the river are difficult to monitor from the Greenbelt.

5. Design of Bridges

Since the 1999 plan was adopted, more areas of Boise are connected to the Greenbelt with the completion of two footbridges and two road bridges, both with pedestrian paths and bikeways. Shortly after the first plan was adopted, the orange footbridge at Baybrook Court, in east Boise, was completed. In 2000, the West Parkcenter Bridge opened, connecting Parkcenter Boulevard to Front Street. In 2009, the East Parkcenter Bridge opened, connecting Harris Ranch and Bown Crossing. In 2010, the 36th Street Footbridge opened, connecting Garden City to Boise at the Boise River Park.

The East Parkcenter Bridge is floater friendly. The West Parkcenter and Glenwood Bridges can be hazardous to floaters and boaters. At these bridges, the piers are at an angle to the current and can push floaters and debris into the piers.

BPR advocates for the safety of pedestrians, bicyclists, and river recreationists when a new or replacement bridge is designed



Public Safety

and built. For example, BPR has provided input to designers of the Broadway Bridge replacement to ensure that the completed project will be safe for pedestrians, bicyclists, river recreationists, and other users. Bridge design affects recreationists, along with BPR operations and maintenance. The height of underpasses affects what size equipment can be moved on the path for emergency access, maintenance, and repairs.

6. Safety Education

The Plan includes recommendations to coordinate with the Volunteer Greenbelt Patrol and bicycle advocates on safety issues and problem areas. This includes working with bicycle concessionaires to inform their clients of path etiquette. Developing ongoing safety education events and etiquette materials supports concerns expressed during the recent user surveys. For more details about the Greenbelt Users Survey, see page 26.

7. Public Safety Recommendations

Protecting and enhancing public safety is one of the primary goals of this Plan. These recommendations support BPR's commitment to providing safe recreational experiences that minimally impact the natural resources of the river corridor.

2014 Public Safety Recommendations

1. Develop emergency access points that meet Boise Fire Department requirements.
2. Post warning signs on the path that Boise Fire Department can bill for river rescues above a certain flow. Link to river flow sites from BPR pages so that river users can determine if flow level is appropriate for their skills.
3. Encourage law enforcement to use non-motorized craft except for training and emergencies.
4. Limit lighting on the Greenbelt path to the downtown core. Reevaluate lighting between Municipal Park and Americana Boulevard as nighttime use increases. If lighting is installed, choose standards that limit light pollution.
5. Convene a meeting of representatives from local government jurisdictions through which the Boise River flows, to decide on a common mileage marker system.
6. Evaluate whether a river ranger program is needed as recreation expands on the river.
7. Work with adjacent local governments to develop a consistent alcohol use policy in the river corridor.
8. Advocate for the safety of floaters, bicyclists, and pedestrians in the design and construction of new or replacement bridges in the City of Boise.
9. Coordinate with the Volunteer Greenbelt Patrol and bicycle advocates on safety issues and problem areas. Develop on-going safety education and etiquette events and information.



Bicycle rider etiquette is important on the Greenbelt path.



Protecting and enhancing public safety is one of the primary goals of this Plan. These recommendations support BPR's commitment to providing safe recreational experiences that minimally impact the natural resources of the river corridor.



Volunteers working together to keep our Boise River banks clear of trash and debris.

Recreation

Over the last five years, the City of Boise has appeared at or near the top of a number of Best Places lists. Some of the lists have cited specific recreational amenities while other lists talk about Boise being one of the best cities for raising a family or starting a business.

Recreational amenities and opportunities are factors in all the livability ratings. Outside Magazine's September 2012 issue ranked Boise as the third best river city in America. The Trip Advisor website ranks the Greenbelt as number 1 out of 85 Boise attractions.

The popularity of the river corridor creates the potential for crowding and resource degradation. A primary purpose of this Plan is to manage recreational opportunities so that there are minimal impacts on the natural resources.

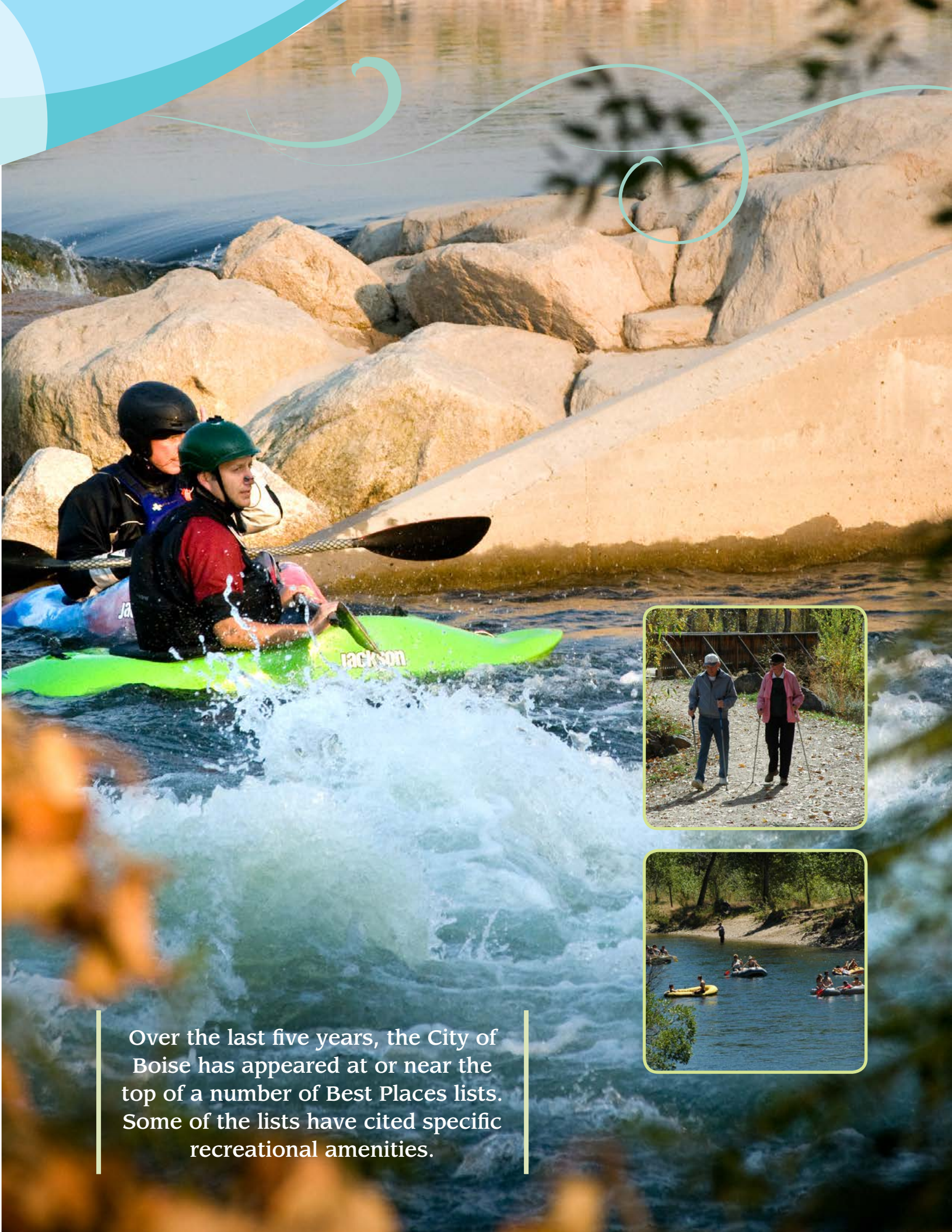
There are regional aspects of the Greenbelt trail and river recreation. The Boise River Trails Coalition describes a potential regional path system and a water trail that extends from Lucky Peak Dam to the Snake River. The 2009 Boise River Trails Plan was signed by the county commission chairs in Ada and Canyon Counties, and mayors of nine cities along the Boise River. The regional context will become more important as downstream jurisdictions develop land and water trails, and offer other recreational opportunities.

The Foundation for Ada Canyon Trails Systems (FACTS) is a nonprofit organization with the mission of creating one path from Lucky Peak Dam to the confluence of the Boise and Snake Rivers. Recently it completed construction of a path from Garden City almost to Eagle road.

The river corridor managed with this Plan makes up about ten miles of the proposed 63-mile Boise River Trails Plan. The following discusses current procedures and the recommendations addressing recreation along this 10-mile stretch, including pathways, river access, boating and floating, recreation demand, restrooms, and litter



Father out for a stroll with his children on the Greenbelt path.



Over the last five years, the City of Boise has appeared at or near the top of a number of Best Places lists. Some of the lists have cited specific recreational amenities.



Regional Land and Water Trails

The Boise River has been a migration corridor for plants, animals, and people for millennia. The vision of many people in the valley is that the river, and its corridor, will have recreational trails, on land and water, for the entire 63 miles from Lucky Peak Dam downstream to the confluence with the Snake River.



A woman and her dog enjoy an afternoon walk along the Boise River corridor.

Boise River Trails

In 2009, top officials from Ada County, Canyon County, and nine cities along the Boise River signed a document supporting the vision and goals of the plan for a Boise River trails system. The Boise River Trails Coalition (BRTC) developed the plan with assistance from the National Park Service Rivers and Trails program.

Recreation

management. The 29 Recreation recommendations are listed at the end of this section, page x.

1. Greenbelt and Unpaved Paths

The first land acquisition for the Greenbelt setback was less than an acre, donated to the city in 1966 (Stacy 1993). Since then, the Greenbelt has grown to include a trail, mostly paved, that parallels the river on both sides through the city. The only remaining gap in the path, downstream from the Americana Bridge, will be extended within the next few years. The Greenbelt was developed as a recreational amenity. Today, the paved path that runs through the Greenbelt setback is also a major transportation route for bicyclists and pedestrians.

The path, and not the users, is the subject of this section. Several 1999 recommendations have been adopted as best management practices. For example, today the paved path standard is 12-feet wide with a 1-foot unpaved shoulder. Travel lanes are defined with a center stripe. More expensive, but more durable, concrete is used for new surfaces rather than asphalt. Today's path designs and construction help to improve safety and to alleviate user conflicts caused by congestion and different types of use on the paths.

Air and Repair Stations:

The Volunteer Greenbelt Patrol reports that one of their most frequent interactions is with people who have a flat bicycle tire. In 2013, two air and repair stations were installed along the path. The stations have compressed air and basic bicycle repair tools. Whole Foods Market donated the air and repair station installed on the path at the east end of Julia Davis Park. This is the first air and repair station on the city's section of the Greenbelt. BPR is monitoring this station as a pilot project to understand the costs and maintenance of the station. Ada County installed an air and repair station on Eckert Road in Harris Ranch.



Clarify Bicycle Route At Bethine Church River Trail: The Bethine Church River Trail, a 1.6-mile gravel path through a 24-acre natural area, is the longest pedestrian-only path on the Greenbelt in the city. The trail is on river left, between the East Parkcenter Bridge and the Cottonwood Apartments. Although there are



signs prohibiting bicycles, cyclists are commonly seen using the path. Marking the entrances to the unpaved path with bollards or other obstacles will remind users that bicycles are prohibited.

At the Bethune Church River Trail entrances, the bicycle path is diverted through private streets located in several neighborhoods. Often the bicycle route is difficult to follow because the painted markings on the road have faded or disappeared.

Evaluate Dual Path Options: Separating types of users is one way to reduce conflicts and to accommodate a greater number of users. Pedestrians have expressed a desire for more paths without bicycle traffic. In addition, congestion on paths interferes with the movement of cyclists and skaters. For example, at Riverside Park, joggers use an unpaved path that is parallel to the paved path.

Space to create dual paths is limited in most areas. One opportunity for an unpaved pedestrian path is between the Boise River and the United Water purification plant at the end of Marden Street, west of the Warm Springs Golf Course. Another unpaved path is planned for the Harris Ranch subdivision, near Eckert Road.

Access from the Boise WaterShed: The City of Boise owns more than 3,000 feet of river frontage behind the West Boise Wastewater Treatment Plant off of Joplin Road, west of Garden City. In addition to the sewage treatment plant, which has restricted access, this area is home to the Boise WaterShed Environmental Education Center. The center's exhibits and programs focus on the Boise watershed. An outdoor classroom is located at the river, next to the path.

FACTS built the section of the path that is located behind the treatment plant. It is maintained by the BPR. The only access from the Boise WaterShed to the river corridor is through a locked gate in the perimeter security fence. Developing public access to the path around the wastewater treatment plant is being explored.

2. River Access

Easy access for people and dogs getting in and out of the Boise River has both positive and negative aspects. The easy access provides a positive recreational experience for people who want to observe, play, or fish in the river. However, the unrestricted access creates resource impacts including trampled vegetation, accelerated riverbank erosion, compacted soil, and damaged habitat.



Young boy learning to ride his modified bike on the Greenbelt path.

Maps in the trails plan identify existing trails, bicycle routes, preferred routes, major roadways, and water from Lucky Peak Dam to the Snake River. A recreational trail, when complete, will have parking at access points, restrooms, and links to local paths and businesses that provide service to the various recreational users of the trail. *The Boise River Trails Plan* can be viewed on the **Ada County** website at <https://adacounty.id.gov/Parks-Waterways/Open-Space-and-Trails>.

Paddling the Boise River

Canoeing the Boise River, written by canoeist and steering committee member Tom Chelstrom, includes a schematic map of the river between Lucky Peak Dam and the Snake River. It identifies access places, portages, hazards, and notable sites by river mileage. Updated in 2002, the guide gives safety and conduct tips. *Canoeing the Boise River* is available for free at the outdoor store, REI, and online.

Recreation



Many enjoyed the river in canoes during the Boise River Park Grand Opening.



River banks are severely trampled where the path is close to the river.



The Boise River Park attracts boaters year round at different flow levels.

Maps 1-3, Appendix A, illustrate some of the access points with erosion and other degradation issues. This list is not a complete inventory. It is based on observations by BPR staff. It is an ongoing challenge for BPR to manage access, repair banks, and restore vegetation where significant resource damage has occurred. Signage, fencing, and planting thorny vegetation are management practices that have been used. The efforts are mostly effective, although people have been observed climbing over and under fences. The steering committee took a bike tour that included stops at sites with heavy recreation use and resource damage. A guide for this bike tour is included in Appendix D.

The largest numbers of people using the Boise River come in the summer to float in inner tubes and rafts. Floaters usually enter the river at Barber Park, located in Ada County. Users float approximately six miles to Ann Morrison Park, located in the City of Boise. As shown in Appendix F, more than 135,000 people entered the river at Barber Park during the 2013 summer season. In addition, an unknown number enter at other locations along the river.

In the six miles between Barber and Ann Morrison Parks, people get out of the river to portage diversions, picnic, swim, or end the float. They walk along the riverbank and through riparian vegetation in order to reach the path. Some regular stopping places for floaters have expanded into rocky beaches and now are sites for riverbank recreation by groups of people. And, people who access the Boise River from the path walk through the riparian vegetation to the riverbank. Unplanned trails wind through the riparian area in some stretches of the river where people play fetch with a dog or use a favorite fishing spot.

There is no developed recreation access on river left between Barber and Ann Morrison Parks. As shown in Maps 1-3, Appendix A, an emergency access site is located upstream from the Baybrook Court Footbridge (Orange Bridge). The dirt ramp, which was designed for emergency access, has eroded and is too steep for easy access by dive team boats on trailers. Many recreationists use this access. During the summer, a portable toilet is put at this site.

There are three designated, undeveloped access sites on river right, specifically Tozer Overlook at the Kimberly One Townhouses, a beach near the Clearwater Apartments, and an area in Julia Davis Park. The sand beaches at the Tozer Overlook and Clearwater Apartments have eroded significantly. The Tozer Overlook beach is no longer on the riverbank because the channel has shifted away from the beach. People use these designated access sites. However, it is obvious from the number of volunteer trails and eroded banks that people create their own paths to and from the river.

The riparian zone is in better condition where access is difficult. For example, on river right, across from River Run and Spring Meadow subdivisions, there is no access from the path to the riverbank. This area has a less disturbed riparian area and provides healthy habitats for wildlife.

An access ramp for emergency vehicles and river recreationists is included in the redesigned Broadway Bridge. The proposed path

extension between Americana Boulevard and West Main Street at the Garden City limits includes an emergency access point. River access will be constructed in Esther Simplot Park between the 36th Street Footbridge and the Farmers Union Canal. A ramp is planned at the Willow Lane Athletic complex. This will be the only public access for trailered, non-motorized boats.

3. Boating and Floating

BPR's river-based recreation management goal is to minimize user conflicts by encouraging certain activities be done in reaches that offer appropriate recreational experiences.

The most heavily used section is located between Barber and Ann Morrison Parks. This reach offers the most developed river access points and parking, along with a shuttle bus and other services that encourage use by casual floaters. Most floaters use inner tubes and rafts that are not suitable for challenging boating. During the summer, there are a large number of children and adults floating the river who have limited or no boating skills. For this reason, this section of the river is managed as an urban experience for less-skilled floaters.

Upstream and downstream of the casual floater reach, the river and river banks are managed less, creating a more challenging and less urban experience for boaters who can read the water and maneuver around obstacles. Currently, there are fewer river access points and services are not easily accessible from the river. This will change as the Boise River Park is expanded, a trailered-boat access is built at Willow Lane, and communities develop emergency and recreational river access.

This management approach does not stop kayakers from enjoying a play wave at a diversion in the floater reach, nor does it prevent designating a boogie boarding site in another less-intensively managed reach of the river. Instead, it sets a framework for the management approaches that will be applied to specific reaches of the river.

In 2012, the Boise River Park opened, fulfilling a goal of the 1999 plan and the vision of local whitewater enthusiasts. Even before the park was officially opened, the location became a popular place for boaters and observers.

The centerpiece of the Boise River Park is an adjustable play wave. Ramps built for irrigation equipment maintenance provide access into the river above and below the play wave. Also, there are observation places and seating on rocks and benches. The 36th Street Footbridge spans that section of the river and provides another view of action in the whitewater park.

The \$3.6 million park was built through a partnership with Friends of Parks, large and small donations, and the City of Boise. Creation of the play wave was made possible by cooperating with the Thurman Mill Canal Company in the reconstruction of their weir and diversion structure.



Quinn's Pond has become a popular place for standup paddleboarders.



Swimmers and boaters are attracted to the river on hot days.



A dock accessible to people with disabilities at Quinn's Pond allows everyone to access the water.

Recreation



Settlers Diversion, near Ann Morrison Park, is a hazard to floaters.



Non-motorized drift boats are used primarily by fishermen.



Bocce ball courts are located in three riverside parks – Ann Morrison, Julia Davis and Municipal Parks.

On river right, at the Boise River Park, a beach provides access to Quinn's Pond. The pond is a popular place for beginning swimmers, kayakers, canoeists, and stand up paddleboarders. Quinn's Pond is adjacent to the Idaho River Sports store uses the pond for water sport rentals and classes.

In the future, other major changes will occur around the Boise River Park. In late 2014, construction on the adjacent 55-acre Esther Simplot Park will begin. The park plans include two ponds that are linked by a waterway, along with access from the park to the Boise River. Planning and fundraising are underway for the next phase of the Boise River Park, expanding the park downstream at the Farmers Union Canal Company diversion. Bernadine Quinn Park, located upstream from Quinn's Pond, will be constructed when funds are available.

The Settlers Irrigation District diversion, just upstream of the Americana Boulevard Bridge, extends across the river. The structure is hazardous, and it stops casual floaters from going farther downstream. Long-term, the Settlers Irrigation diversion is another potential site for a whitewater feature. The diversions are owned by irrigation entities and require the consent and cooperation of the private owners before they can be modified into a recreational amenity or portage.

As shown on Maps 1- 3, page x, there are eight structures between Barber Dam and Glenwood Street Bridge that divert water from the Boise River into irrigation canals. Recreationists, from timid floaters to experienced canoeists and others, need a safe, predictable way around these eight diversion structures. A comprehensive assessment of portage alternatives for different types of recreational users and access at different flows needs to be developed. Author and steering committee member, Tom Chelstrom, has identified potential portage routes for canoeists in his guide, *Canoeing the Boise River*.

Owners of large rafts have requested a take-out that is accessible by vehicles pulling trailers. A take-out near the Old Timers' Shelter in Ann Morrison Park was closed and revegetated. That take-out was used primarily by people with large rafts who preferred to use a nearby park road for pulling a trailer closer to the take out.

4. Recreation Demand

BPR resource management and people management needs to be flexible in order to respond to changes in society, technology, and trends in recreational pursuits. The steering committee for the 1999 plan was concerned about placing emergency phones along the path and rollerblading was a popular activity. Now, a cell phone is never far from any user and stand up paddleboards ply the river from Lucky Peak to the Snake River.

The number and types of recreationists who use the river corridor are unknown. A complete study of recreational use has not been conducted. Information from surveys conducted by different groups helps to understand trends. During the main float season, Ada County tallies floaters who enter the river at Barber Park. BPR issues permits for special events on the Greenbelt, in riverside parks, and

for concessionaires who teach kayaking on the river. The Idaho Department of Fish and Game conducts fishermen and creel surveys every few years.

In 2013, BPR approved permits for 57 fun runs and walks that use the Greenbelt path. The number of participants in each event is not known, however an annual average of more than one event a week indicates groups of people frequently congregate for publicized events in the river corridor.

In 2012, the Boise Police Department surveyed floaters about congestion, unsafe behavior, and other water-user safety issues. The information was collected during one weekend in August. Floaters leaving the river in Ann Morrison Park were handed a card with a web link that asked them to take the survey. There were 903 responses to the online survey. The survey results noted areas of congestion at the Baybrook Court Footbridge (Orange Bridge), Boise River Park, and Quinn's Pond (Boise Police Department 2012). It was recommended that the city provide more education about the state law requiring children ages 14 and under to wear personal flotation devices.

Over two days in September of 2012 and 2013, BPR conducted surveys of Greenbelt users, in partnership with the Department of Community and Regional Planning at Boise State University. Survey results were similar both years. Pedestrians and cyclists were positive about their experiences and safety. The most requested change was for improvements to the path surface.

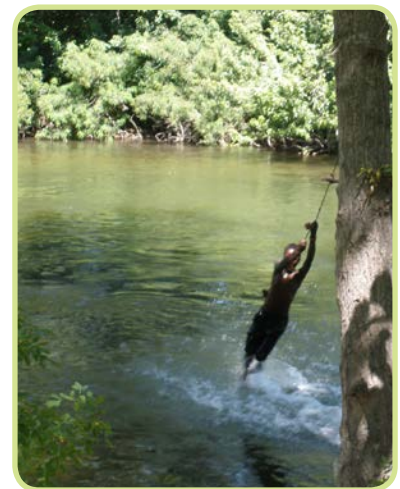
Many other groups and individuals use the river corridor for a variety of recreational and educational pursuits. For example, bird and wildlife watching and photography are popular. Fitness activities have changed over time, and the number of fitness enthusiasts has grown. In 2013, a fitness station was installed along the path in Ann Morrison Park.

On hot days, swimming and other activities around the riverside ponds bring a great number of people to the river corridor. Rope swings are places where people congregate along the river and at the ponds. According to the Boise Fire Department, the ponds near Veterans Park are hot spots for emergency calls.

In 2012, the Boise City Council legalized jumping into the Boise River from bridges. Bungee jumpers and boogie boarders have asked for a place on the river where they are permitted to tie their boards. Recently, stand-up paddleboarders started using the river and ponds.

There is demand for a regional river and land-based trail system that extends from Lucky Peak Dam to the Snake River, which includes this planning area. As recreation increases and expands on the river, it may be necessary to institute a river patrol similar to the Volunteer Greenbelt Patrol.

A formal economic analysis of the market and non-market values of the Boise River corridor would provide a baseline to measure the impacts of management alternatives, development, mitigation, and other choices. The river corridor is a noted amenity on local, regional, and national levels. The open space and the river corridor provide the community with environmental services, such as flood mitigation



Rope swings are popular, however they often result in injuries and damage to trees.



Dr. Jaap Vos, Director of the Community and Regional Planning Department at Boise State University, in 2013. BSU and BPR are cooperating to build long-term information about path users.

Annual Greenbelt Survey

In 2012 and 2013, a survey of Greenbelt path users was conducted in partnership with the Community and Regional Planning program at Boise State University. The information is the most complete and systematic information collected on path users. Survey results for both years were similar, with the majority of cyclists and pedestrians feeling happy and safe using the Greenbelt path.

In 2013, a cadre of more than 40 volunteers manned four survey stations from 7 a.m. to 7 p.m. on a Tuesday and a Saturday in September. More than 1,000 surveys were completed.

About 75 percent of respondents use the Greenbelt path three or more times a week, with 55 percent using it daily. The survey respondents were 44 percent pedestrians and 56 percent cyclists. On the same days of the survey, the Ada County Highway District conducted an automated count that reported 35 percent pedestrians and 65 percent cyclists. On Tuesday, pedestrian use increased during the lunch hour.

Recreation

and water quality protection. This type of analysis could help BPR and the city measure the impact of development and resource management choices, including the impacts on non-market values such as wildlife habitat, open space, clean air, environmental services, and amenity values.

5. Restrooms

Most of the restrooms provided by BPR in the river corridor are located on river right. On river left, a restroom is available in Ann Morrison Park and a seasonal portable toilet is available at the River Quarry access ramp.

Restrooms are open year round at Marianne Williams Park, Warm Springs Golf Course, Warm Springs Park, Municipal Park, near the zoo in Julia Davis Park, Ann Morrison Park, Shoreline Park, Kathryn Albertson Park, and at the wastewater treatment plant on Lander Street. The restrooms are open during daylight hours and are locked at night.

A floater pullout in Julia Davis Park has been minimally improved near a restroom. The informal tuber port has railroad tie steps in the bank and a trash can. In the future, additional year round restrooms will be available at the east end of Julia Davis Park, at Bernadine Quinn Riverside Park, and the Boise River Park.

6. Litter Management

The amount of litter in the river corridor has declined substantially since the first plan was adopted in 1999. The reduction is frequently attributed to the 2009 ordinance banning glass containers and alcohol use on the Boise River. According to volunteers with BPR's Adopt the Greenbelt program and the annual Boise River Sweep event, litter has been reduced substantially since the ordinance was enacted.

The Boise River Volunteers, a non-profit group not affiliated with BPR, regularly floats the river during the general rafting season and picks up trash, along with lost and found items. They provide assistance to floaters and offer people with disabilities an opportunity to ride in a boat.



Trash can and plastic bag dispensers are plentiful along the Greenbelt path.

Recycling containers are maintained by BPR at some parks and the floater takeout in Ann Morrison Park. During the float season, those containers are emptied multiple times during the day.

7. Recreation Recommendations

Flexible resource and people management plans will respond to changes in society, technology, and trends in recreational pursuits. These recommendations support BPR's commitment to providing positive recreational opportunities for all users.

2014 Recreation Recommendations

Paved and Unpaved Paths

1. Install bicycle fix-it stations at strategic locations along the Greenbelt path.
2. Coordinate with Ada County Highway District and homeowners associations to delineate the bike path and improve wayfinding on streets around Bethine Church River Trail.
3. Put bollards at the entrances to pedestrian paths to reinforce bicycle prohibition.
4. Work with the property owner to develop an unpaved official path behind the United Water purification plant at the end of Marden Street.
5. Maintain or create a dual path system (paved/unpaved) where possible to reduce congestion and to improve safety.
6. Create access from the WaterShed at the West Boise Wastewater Treatment Plant to the Greenbelt path.

River Access

7. Inventory and assess developed, designated, and informal river access sites; rehabilitate sites where needed.
8. Identify some areas where dogs legally can enter the river off leash.
9. Consider benches or overlooks at sites with views and at end of river access trails, e.g. near Government Island site on the proposed path.
10. Develop access for multiple purposes where possible. Limit public access for trailered boats.

Boating and Floating

11. Work with irrigators and recreationists to extend the Boise River Park concept to other diversions on the river.



One of the 40 plus volunteers talks to a pedestrian during the Greenbelt Survey in September 2013.

The respondents surveyed on Tuesday tended to use the path for transportation. Most of the Saturday respondents were using the path for recreation. About 58 percent of the respondents arrived by bicycle, 25 percent arrived on foot, and 22 percent drove to the Greenbelt. The majority of the respondents accessed the path through one of the major city parks.

The majority of pedestrians and cyclists requested improving the surface of the path. Also, respondents expressed concern that other path users do not understand the etiquette of pathway use. This complements reports from the Volunteer Greenbelt Patrol that many of the accidents and conflicts on the path result from users not understanding path safety practices and etiquette. This indicates the need for etiquette education is constant and ongoing.

An article about the project, *The Boise River Greenbelt: Polishing a Community Gem*, was published by Boise State University in the May 2014 edition of Urban Research at http://sspa.boisestate.edu/publications/files/2013/12/Urban-Research_May-2014_final.pdf.

The Greenbelt and River Corridor Are Inspiring

Photographers, artists, poets, storytellers, and others have been inspired by the Greenbelt path and river corridor.

Lisa Flowers Ross, Fabric Artist

Fabric artist Lisa Flowers Ross is creating a collection called “The Greenbelt Series” that is based on the mileage dots painted on the path.



Daniel Gonzalez, Photographer

Photographer Daniel Gonzalez takes thousands of photos year round while serving on the Volunteer Greenbelt Patrol.



Recreation

12. Develop a portage plan that includes strategies for portage trails around diversions, dams and other obstructions.
13. Implement river reach management according to recreation experience and recommended boating skills.
14. Work with recreationists to improve access for non-motorized boaters.
15. Partner with irrigators, recreationists, agencies to reduce hazards and to improve recreation opportunities at diversions.
16. Evaluate locating a pick-up/drop-off area for non-motorized boats upstream of the Settlers canal diversion.
17. Build the boat ramp at Willow Lane when a public boat ramp is available downstream.
18. Survey river users to determine commonly used put-in and take-out sites upstream of Ann Morrison Park.

Recreation Demand

19. Use regular surveys, counts, and other methods to collect data and monitor long-term trends in order to determine user capacity, environmental sustainability, and tolerance levels.
20. Reduce river user conflicts by designating special use areas, e.g. bungee boarding.
21. Inventory rope swing areas along river and ponds and assess whether to develop, revegetate, or close.
22. Conduct an economic analysis of market and non-market values of the river corridor.
23. Address parking options on private property near the path:
 - Seek agreements with owners of private parking lots to designate after-hours Greenbelt user parking
 - Enforce existing agreements in private lots designated for Greenbelt user parking
24. Inventory and assess where bicycle racks are needed.

Restrooms

25. Locate restrooms in new riverside parks to be accessible from the river and create accessible routes between restrooms and the river in existing parks.
26. Explore constructing a restroom on the proposed path extension between Americana Boulevard and the Main Street Bridge.
27. Place portable, seasonal restrooms at heavily used recreation areas where a permanent restroom is not feasible.

Litter Management

28. Encourage zero tolerance of litter through educational and volunteer programs.
29. Provide recycling containers in the river corridor at high-use areas and river access points.





Bullfrog seeks shelter in a camouflaged habitat.

Natural Resources

The riparian zone, the band of vegetation influenced by the Boise River, is one of the community's most valuable, yet vulnerable, assets. It provides ecological services to the community, including reducing flood mitigation, controlling erosion, and improving surface and groundwater quality. For fish and wildlife, the riparian zone provides food and shelter. BPR manages habitat in the river corridor, which is wider than the riparian zone. BPR does not have management authority for wildlife. The 22 Natural Resource recommendations are listed at the end of this section.

1. Habitat Management

The Boise River riparian zone is home to, and a transit route for, wildlife and birds. Most of the resident wildlife are small mammals, birds, and reptiles. The riparian zone is a route for large animals that occasionally make their way into the city, including moose, cougars, bears, and coyotes. Riparian management practices and approaches are contained in several different documents, including the BPR operations and maintenance manuals and tree management plan.

In 2002, the U.S. Army Corps of Engineers, in a cost-share Planning Assistance to States study, completed the *Stewardship Plan for the Riparian Corridor from Barber Park to Glenwood Bridge*. This study was the result of a recommendation in the 1999 plan. The Stewardship Plan identified vegetation cover types and made suggestions for managing and improving the cover types in the river corridor. The Stewardship Plan, Boise River System Application (Boise City Code 11-03-04), and Boise River System Overlay Districts (Boise City Code 11-05-06) are used to guide the management of the river corridor. (Appendix D)

Land use decisions along the river are made based on the habitat classifications from the city code. The habitat classifications, Class A, B and C lands, are based on a 1983 inventory of wildlife habitat in the riparian zone. Class A Lands are defined as having the highest habitat values and



Trees and shrubs are important to wildlife for food and shelter.

The riparian zone, the band of vegetation influenced by the Boise River, is one of the community's most valuable, yet vulnerable, assets.



Natural Resources

are labeled Areas Extremely Important for Preservation. Class B lands provide good potential for improvements to natural resource functions and values. Class C lands have minimal habitat value.

Since 1983, there have been many changes along and near the river. An updated inventory based on current conditions will help BPR determine what has changed and what management actions are needed. In addition, the assessment can be used for programs managed in partnership with other city departments, such as the National Pollution Discharge Elimination System (NPDES) permit activities led by the Boise Public Works Department (BPW).



Bald eagles are frequently seen along the river corridor.

Terrestrial Habitat: The land adjacent to the river is the terrestrial habitat, including the riparian zone, upland vegetation, and parks.

Bird watching is a year round activity on the Greenbelt. Anecdotal observations and the summary in the Stewardship Plan indicate that good quality bird habitat exists in some places. Studies conducted by a Boise State University graduate student and professors with the Department of Biological Sciences are providing more specific information about birds using the riparian area through the city. These studies might provide information on management activities to improve habitat for diverse bird populations (Korte 2013, McClure, et al. n.d.).

Idaho Department of Fish and Game (IDFG) monitors bald eagle nesting along the Boise River. The observations are documented in unpublished reports at IDFG (Knetter, S.J 2009). In addition, at least two heron rookeries are in the river corridor reviewed in this Plan.

Geese congregating in large numbers have become a nuisance in the grassy open areas of riverside parks and along the path. Different types of management practices have been tested, but a solution to the problem has not been determined. Management alternatives are governed by the U.S. Fish and Wildlife Service's Migratory Bird Treaty Act.

Since the 1999 plan was adopted, the Boise River's riparian area has been named an Important Bird Area (IBA). The IBA program is an international system for identifying key bird sites. Birdlife International originated the program, and the Audubon Society administers it in the United States. IDFG coordinates winter waterfowl and shorebird counts to monitor the IBA. The observations are documented in unpublished reports at IDFG (Moulton 2012).

Wildlife depends upon the riparian zone for food and shelter. The most noticeable impacts to this zone are people and dogs trampling vegetation and non-native plant species crowding out native species. In urban settings, domestic and feral pets impact the habitat. Nationwide, cats kill one billion birds a year, according to the American Bird Conservancy. People release pets, including turtles, fish, snakes, and other small animals, into parks and ponds. Like non-native vegetation, non-native animals degrade the habitat or out-compete native species for food and other resources.

As discussed in the Information and Education section, page 44, environmental education programs help visitors learn how to use the river corridor appropriately and to understand the effects of domestic pets on the habitat and wildlife.

Beaver Management: Beavers are the only animals managed by BPR because of the extensive damage they can cause to riparian corridor vegetation and to parks. BPR has managed beavers since 1991. Initially, beavers were spayed and neutered and returned to the river, but the number of beavers continued to increase. Today, a combination of protecting trees and trapping beavers is used to keep the population at acceptable levels.

A popular volunteer activity for groups, especially children and youth, is protecting trees from beavers by wrapping the trunks with chicken wire. It is BPR policy that beavers be relocated when possible, while beavers that are active in parks are destroyed. Captured beavers are relocated in coordination with IDFG. From 1991 through 2012, 351 beavers were trapped in the Greenbelt setback or in parks.

Terrestrial Habitat Improvement and Restoration: Black cottonwoods, the tree species native to the Boise River riparian zone, regenerate naturally when spring floods are followed by slowly decreasing flows that expose soil where cottonwood seeds germinate. The absence of regular flooding is one factor in the decline of the cottonwood forest and riparian zone. Today, cottonwoods sucker and sprout, but often do not grow into big trees. Ramping rates, the speed with which dam-regulated flows are increased or decreased in the river, also affect the riparian area. The rapid and unnatural alteration of flows in the spring decreases the ability of riparian plants, including cottonwoods, to reproduce naturally. Rapid reduction of flows increases bank instability and the potential for riparian trees to fall over.

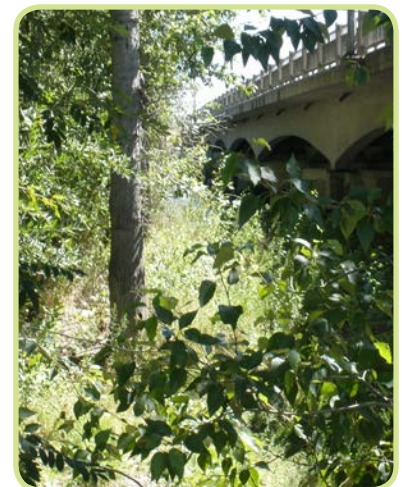
BPR's Community Forestry unit is concerned about the declining canopy of mature cottonwoods. Non-native vegetation has increased with the lack of new cottonwood generations. Community Forestry would like to plant more native trees in the



Birding is a popular activity in the river corridor, part of which has been designated as an Idaho Birding Trail.



Volunteers wrap trees with chicken wire to prevent beaver damage.



Black cottonwoods are native to the Boise River riparian area.

Natural Resources

riparian area; however, the lack of irrigation and competition with non-native species make it difficult for newly planted trees to survive.

Where possible, no mow zones have been established along the Greenbelt to allow the riparian and adjacent upland vegetation to expand. Turf management and water conservation plans guide operations and maintenance staff to reduce turf maintenance and water use. BPR operations and maintenance staff have developed expertise in riverbank revegetation and stabilization.



Bioengineering techniques, for example wattles and willow cuttings, are used to repair stream banks.

Restore habitat: Every year, BPR and BPW staff survey the river from the Greenbelt path and identify one or two riverbank revegetation or stabilization projects. Instead of hardening banks with riprap and gabion baskets, bioengineering techniques are preferred that use vegetation, native rock, and native materials. Banks are hardened in areas where river velocity or sheer stress is likely to overwhelm a bioengineered project.

Examples of successful bank stabilization and habitat restoration are at Heron Cove on the Bethine Church River Trail, at the end of Lusk Street, and in Ann Morrison Park near the Old Timers Shelter. A number of habitat restoration projects have been accomplished in partnership with conservation organizations and volunteers.

Pond Management: Ponds along the path, that were once gravel pits, are now visual and recreational amenities. Some of these ponds are separated from the river by a narrow strip of land, usually topped by the path. Many recreationists use the ponds, resulting in degraded resources and safety issues.



Some pond banks are steep and subject to erosion from recreational use.

A recommendation is for BPR to inventory and to analyze each pond for its recreational, aquatic, and terrestrial habitat values. Also, the potential for pit capture needs to be assessed. Pit capture happens when the river breaches or flows over the narrow strip of land into the pond, and then exits downstream. Pit capture of a pond in the city may put park and other infrastructure at risk. When a pit is captured, the river can be without water between the river's entrance and exit from the pond. A great deal of sediment is flushed into the river, which may change course to a new channel through the pond.

Ponds can be improved to provide better fish habitat by reducing erosion, controlling weeds, and planting trees to shade the water. Installing better access to the water, including building docks, would provide fishermen an easier way to access the different fishing experiences offered by the ponds and prevent some of the resource damage that is occurring.

The ponds near Veterans Park are hot spots for emergency calls responded to by the Boise Fire Department (BFD). Rope swings, one of the activities at ponds and some places along the river, result in injuries to recreationists and to trees. Rope swings concentrate users, and that causes bank erosion.

Ponds in parks provide close-to-home fishing opportunities with easy access, especially for families. Public fishing opportunities near the river are available at Marianne Williams Park, Parkcenter Pond, Quinn's Pond, and Veterans Park. Annually, IDFG stocks about 17,000 catchable-sized rainbow trout in these four ponds. Only warm-water fish species are stocked in Loggers Pond at Marianne Williams Park.

Stocking fish in the river, and especially in ponds, is difficult because of limited access for IDFG vehicles. Heavy stocking trucks can cause damage to park turf, irrigation systems, and sidewalks when there is no developed access.

Aquatic Habitat: The Stewardship Plan includes suggestions to improve channel diversity with in-stream structures created from boulders. The boulder structures provide cover and resting areas, feeding lanes, and capture substrate for native plants. According to the Stewardship Plan, creation of a more diverse aquatic habitat would improve cold-water fish populations. This type of project would require partnerships to cover the costs of building in-stream structures, as well as agreements from several agencies with authorities over the Boise River.

Side channels and tributaries of the river provide habitat for fish spawning and nursery areas. Habitat improvement projects may include placing spawning gravel in the streams and revegetating the banks with willows. Volunteers from Trout Unlimited completed this type of project at Heron Cove, located on the west end of the Bethine Church River Trail.

Staff Position: A recommendation carried over from the 1999 plan is to create a position for a naturalist or ecologist. The need for this type of expertise at BPR continues. The position would be responsible for resource planning and maintenance guidelines to enhance natural areas and to revegetate the river corridor, parks, and foothills. This person would lend expertise to educational programs and information provided by BPR. Coordination with researchers working in the river corridor could provide information for riparian zone management that would benefit wildlife and their habitat.



Ponds in parks provide close-to-home fishing opportunities.

Hydraulics and Hydrology

Hydraulics is the applied science and engineering related to the mechanical properties of liquids. Hydraulics are the forces of moving water on the river banks and man-made structures, in short, the work done by the river. The hydraulics of the river are changed by channelization, bank hardening, and other modifications to the river channel.

Hydrology is the study of the amount of water that over time moves through the watershed and eventually is discharged into the river. A hydrograph is a graph that plots the variation in discharge with respect to time. Discharge is the volume of water flowing past a location per a unit of time, usually measured in cubic feet per second (cfs).



Boise River flows are tracked at a gage near the Glenwood Bridge. The gage is operated by the USGS in cooperation with the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation. Photo_HHS_1 (Glenwood gage) The discharge is reported

Natural Resources

2. Wetlands and Water Quality

In 2014, BPR updated the 2006 Memorandum of Agreement (MOA) with The Wetlands Group (TWG) that creates wetland mitigation banking projects on BPR land. Mitigation banking is regulated by the U.S. Army Corps of Engineers (USACE) under its Clean Water Act Authority.

The 2006 MOA (Appendix C) was based on recommendations in the 1999 plan. Some of the largest restoration and habitat-creation projects on BPR lands are the result of this agreement. TWG can use banked wetland mitigation credits to offset the loss of wetlands in other developments. For five years, USACE requires monitoring to ensure the site is a functional wetland. Three sites were completed, and one site was found to be unsuitable.

- Willow Lane Athletic Complex Greenbelt lands: In 2012, wetlands were developed at this site. The wetlands connect hydraulically to the Boise River and provide improved habitat and storage for floodwater. The wetland was not developed for recreational use or for treating stormwater.
- Hyatt Hidden Lakes Reserve: Opened in 2012, this reserve was developed to receive stormwater from nearby Ada County Highway District roads. The reserve is used for passive recreation and as an environmental education site. Although not in the river corridor area, it is an example of how improving water quality throughout the watershed will improve water quality in the river. In addition, the wetlands create riparian habitat important for wildlife.
- Marianne Williams Park open space areas: Creating and restoring wetlands were included in the development of the Marianne Williams Park, opened in 2013. The wetlands treat stormwater from the park and from part of the Harris Ranch development. A flood channel is incorporated into the park.



- Warm Springs Park natural area: A geotechnical evaluation of the site showed that the groundwater is too deep for a successful wetlands mitigation site.

The 2014 MOA identified six sites for possible wetlands mitigation sites. Two of the sites are from the 2006 list, and the remaining four sites will be evaluated, specifically:

- Julia Davis Park Cottonwood Creek Flume (on the previous list and high priority)
- Warm Springs Golf Course Greenbelt lands (on the previous list)
- Expand Willow Lane Athletic Complex Wetlands Area
- Esther Simplot Park
- Ann Morrison Park
- Alta Harris Creek

BPR can undertake restoration of areas not included in mitigation banking. Foothills streams and riparian areas, riparian areas that are not designated wetlands, and streams and drainages near the confluence with the Boise River present opportunities for wetland restoration. All these potential wetlands are in the Boise River watershed and would contribute to improving water quality in the river.

Bank Erosion: Bank erosion is an on-going challenge for BPR. Erosion is a natural process caused by flooding, shifting gravel bars and sedimentation, and by the force of water that hits riverbanks. In an undeveloped valley, a river may meander back and forth, its course changing in floods and in response to the relentless force of water over time. The Boise River's flow is managed by dam releases, and the channel is squeezed by development. In this situation, erosion can cause damage to the river corridor's riparian areas, paths, and other public and private infrastructure.

The US Bureau of Reclamation (USBR) and USACE manage the three storage reservoirs located upstream of Boise. The flow level of the Boise River is raised and lowered to respond to irrigation demand and the need to evacuate space in the reservoirs for runoff from snow melt and rain. Rapidly



The river channel has changed and moved away from the Tozer overlook.

numerous times a day. A daily hydrograph and the historical flow information are reported on the USGS website at

< http://waterdata.usgs.gov/usa/nwis/uv?site_no=13206000 >.

A typical hydrograph for a river fed by run off from mountains shows peak flows in spring, when melting snow causes high runoff. The fall and winter flows are relatively flat lines on the graph. Because of the dams upstream of Boise, flow levels in the Boise River no longer follow the natural hydrograph of high peak spring flows to a gradual decrease of relatively stable winter flows.

For a river managed for irrigation, like the Boise River, the hydrograph shows spring peak flow lower, to hold water in the reservoirs for summer irrigation and to reduce flooding. The summer discharge is higher than an unmanaged river because water for irrigation flows in the river until diverted into canals. Winter flows in the managed river generally are lower than the natural base flow.

Natural Resources

Irrigation

Water from the Boise River has been used for agriculture since at least 1864, when Tom Davis dug a ditch and secured the first water right in what now is the City of Boise. By 1866, there were 34 water rights on the Boise River. Today, there are almost 400 surface water rights on the river below Lucky Peak Dam. Water rights are a type of valuable property right. The basic tenet of Idaho Water Law is, “First in time, first in right.”

Irrigation entities were early developers of dams and diversions in the river that move water into canals that lace the valley bringing water to places miles from the river. Water from the Boise River irrigates more than 325,000 acres of crops, pastures, and lawns.

The three largest dams upstream of Boise were constructed to store spring run off for irrigation needs later in the growing season. In addition, some of the reservoir space is for flood control. Lucky Peak Dam is managed by the U.S. Army Corps of Engineers. Arrowrock and Anderson Ranch Dams are managed by the U.S. Bureau of Reclamation. The two federal agencies work together to operate the three dams as a system.

“Irrigation is why the valley is as it is today,” says Rex Barrie, Watermaster, Water District 63.

Water District 63 encompasses the entire Boise River drainage. A watermaster is responsible for administering the water rights in a basin, both natural flow or storage flow rights. Natural flow rights refer to what naturally flows in the river. Storage rights refer to water

increasing or decreasing the amount of water released by a dam, referred to as ramping, causes bank instability. To minimize the problems caused by rapid ramping, the dam operators try to increase or decrease the flows less than 500 cubic feet per second in one day. The seasonally modified flows of the Boise River have been detrimental to some riparian species, such as the native black cottonwood, but have been advantageous for summer recreation, such as tubing and kayaking. A more natural flow regime would benefit fish and riparian habitat. The effects on recreation have not been analyzed.

Once a year, BPR and BPW staff inventory the riverbanks to determine which sites need treatments to stem erosion or to strengthen riverbanks. The sites with the most damage, or most potential for encroachment into the path or other infrastructure, are given highest priority.

Bioengineering, such as using root wads and willow bundles, are preferred methods of bank stabilization and reclamation. All the plant materials used in revegetation are native. For example, willow cuttings are taken from other places along the Boise River. Constructing in-stream rock barbs to direct the main flow away from a vulnerable riverbank can avert some erosion damage. After receiving the necessary permits, BPR crews complete the work between November 1 and March 15.

Irrigation Diversions: As shown on Maps 1-3, page x, there are eight irrigation diversions in the river in the planning area. Only the Thurman Mill weir and diversion have been modified to be a recreation amenity. The new diversion was constructed in conjunction with the development of the Boise River Park.

Irrigation companies or districts own all diversions on the Boise River. Each diversion presents varying degrees of excitement or hazard for river recreationists. Recommendations in the Recreation section, page x, include adding river recreation features at the diversions, along with safe portages and better access. BPR builds relationships with irrigation entities to find opportunities to balance recreational uses with the delivery of water and maintenance of the diversions.



Stormwater: Parks and open space provide green infrastructure that treats stormwater by capturing pollutants and reducing flooding. BPR augments the green infrastructure in a number of ways. Many of the recommendations in the 1999 plan are now best management practices and are integrated into the design, horticulture, operations, and maintenance activities of the department.

BPR plays an important role in meeting the stormwater management goals of the city. The goals are part of the NPDES permit issued by the U.S. Environmental Protection Agency. The city partners with five other local entities to manage stormwater and other permit activities, specifically:

- Ada County Drainage District #3
- Ada County Highway District
- Boise State University
- Garden City
- Idaho Department of Transportation

As part of its NPDES activities, park staff inspects, maintains, and keeps records on 395 drainage structures and 52 sites without structures that are in parks, reserves, and undeveloped BPR land.

BPR has developed a system of no mow zones in riverside parks and along the path to filter runoff to the river. Swales in parking areas, like the bioswale in the Municipal Park parking area, capture and filter runoff, keeping it from flowing directly to the river or into a storm drain. Constructing treatment wetlands and restoring riparian vegetation to shade waterways are methods that BPR uses to protect water quality.



Other best management practices BPR follows to protect water quality include providing plastic bags along the path for pet waste, litter and trash pick-up, hard surface and turf sweeping, and hazardous waste collection. A spill response plan for hazardous materials is regularly updated.

Integrated Pest Management: BPR has adopted a progressive, integrated pest management (IPM) program to reduce the chemical use on BPR land. The manual, IPM Chemical Pest Management Guidelines, was adopted in 2009 and was revised in 2014.



There are eight structures in the planning area that divert water from the river into irrigation canals.

that is stored in an upstream reservoir. Barrie monitors and measures diversions, tells reservoir managers how much water to release from a reservoir on a given day during irrigation season, and keeps records of how much water is delivered to water rights holders.

Barrie notes that the irrigators will do whatever is required to get the water to which they are entitled. The diversions, headgates, and canal banks are the private property of the irrigation entity. Irrigators are not subject to most permitting when working on a diversion in the river. BPR partners with irrigation companies to help improve diversions in the river corridor that protect the habitat and help to create an enjoyable and safer experience for Greenbelt path and river users.

Natural Resources

IPM is important in maintaining the quality of water running off of the parks and the path into the river or recharging groundwater. Some examples of IPM strategies implemented by the department include:

- Using horticultural practices, such as proper irrigation, aeration, pruning, and over-seeding to help maintain healthy plants
- Reducing chemical use by applying pesticides when they will be most effective in the pest's natural cycles
- Choosing the least toxic chemicals to accomplish the desired goal
- Removing phosphorus from fertilizer blends, when possible

There are many private and public landowners along the river and just beyond the Greenbelt setback. BPR leads by example and provides some outreach to adjacent landowners who could improve their landscape maintenance practices.

3. River Dynamics

The amount of water flowing in the Boise River is the variable that has the biggest influence on riparian vegetation and aquatic habitat, and it is the variable that BPR has the least influence over. The USBR and the USACE jointly manage Lucky Peak Dam. USBR manages Arrowrock and Anderson Ranch Dams. The three reservoirs upstream of Boise were constructed primarily to store irrigation water.

Managed flows are different than the natural pattern of river flows in the Boise River. Winter flows are lower than the natural level because water is held to fill the reservoirs. Spring flood peaks are lower because much of the water that would have flushed the Boise River is held in the reservoirs. Summer flow levels are higher than natural flows in order to deliver water that is used to irrigate crops and lawns. Irrigation districts and companies have water rights that determine when and how much water irrigators can use.

BPR needs to coordinate with irrigators, federal agencies, IDFG, and other organizations interested in achieving a more natural flow pattern in the Boise River. It is a complicated set of issues, with urban values and recreational uses meeting the traditional irrigation uses that have rights to the water. A more natural flow pattern would benefit riparian plant species. Additional winter flows would benefit the fishery.

Snags, Vegetation and Debris: Leaving snags and vegetation hanging over the river and leaving debris, especially large woody



The parking lot at Municipal Park drains to a vegetated swale, an example of green infrastructure.

debris, in the river channel improves fish habitat. However, removing snags, vegetation, and debris makes the river safer for tubers and other river users. This presents a dilemma for habitat management upstream from Americana Bridge, where some of the best fish habitat is found. This is the same river reach used most heavily by river recreationists.

BPR works with BFD, Ada County Department of Parks and Waterways, and Ada County Sheriff's Office to manage the vegetation and debris in the river reach between Barber and Ann Morrison Parks. In the spring, the agencies work together to survey this river stretch to identify the snags and debris most dangerous to floaters. Both the IDFG and Idaho Department of Water Resources Stream Channel Alteration staff indicated a desire to be included in the spring river surveys and in developing criteria for snag and debris removal. Flood Control District 10 removes trees and debris in the downstream planning area and in the vicinity of the West Boise Wastewater Treatment Plant.

Flooding: The last major flood on the Boise River was in 1943, and it was the impetus for building Lucky Peak Dam. Flooding is part of the natural cycle of rivers and provides beneficial functions to a river and its floodplain. Open space and parks along the river are sustainable land uses in flood hazard areas and can provide space for floodwater. There are opportunities on BPR managed lands to reconnect the river and the floodplain, which, in most places, is above the river. Reconnecting the floodplain with the Boise River can reduce flood levels, restore riparian areas, and increase fish and wildlife habitats.

BPR does not have floodplain management responsibilities. Boise Planning and Development Services (BPDS) and BPW manage the floodplain program in the city. BPR reviews Boise River System applications and makes recommendations to BPDS on proposed activities in the Greenbelt setback.

4. Natural Resource Recommendations

A primary purpose of this Plan is to provide natural resource management that protects the river corridor, without diminishing recreational experiences. These recommendations support BPR's commitment to creating this balance.

2014 Natural Resource Recommendations

Habitat Management

1. Commission an ecological assessment of terrestrial and aquatic habitat, concentrating on the riparian zone and river setback, to update the information from the 2002



Parts of the Greenbelt path flood during high water caused by spring runoff.

Natural Resources

Stewardship Plan for the Riparian Corridor from Barber Park to Glenwood Bridge.

- Develop a riparian management plan when the updated ecological study is complete, include best management practices.
 - Collaborate with other city departments, e.g. National Pollution Discharge Elimination System requirements, flood mitigation.
 - Update the Boise River System A, B, C lands with Boise Planning and Development Services, using the ecological assessment.
2. Work with Idaho Department of Fish and Game and others to improve habitat and restore structure and function of riparian zone vegetation.
 3. Move the path back from the riverbank and wetlands wherever possible; consider raised walkways in ecologically sensitive areas; expand no-mow zones.
 4. Use bioengineering and native plants to revegetate and reclaim riverbanks.
 5. Document riverbank projects in a spatial database so project impacts can be monitored.
 6. Use volunteers to wire wrap diverse age classes of trees to protect from beavers.
 7. Remove beavers when a significant amount of vegetation is damaged in an area and work with Idaho Department of Fish and Game to relocate problem beavers.
 8. Inventory and analyze ponds for recreational, aquatic, terrestrial habitat values, and pit capture potential; develop and implement a management approach for each pond.
 9. Work with irrigation interests to prevent fish from entering irrigation canals and ensure that new structures do not block fish migration.
 10. Provide fish stocking access sites on the river and ponds for Idaho Department of Fish and Game.
 11. Create a position for a naturalist or ecologist who would provide guidance on natural resource management, rehabilitation, and environmental education.



Wetlands and Water Quality

12. Inventory and document wetland enhancement sites along the river and in tributaries that are not wetland banking sites.
13. Form partnerships to build treatment wetlands on BPR lands.
14. Restore riparian areas; plant trees to shade the water.
15. Incorporate sustainable/green infrastructure in park development and redevelopment.
16. Work with Boise Public Works Department and others to identify projects that improve habitat and water quality and meet National Pollution Discharge Elimination System permit requirements, including land acquisition.
17. Continue, and expand where possible, the Integrated Pest Management program.



Overlooks provide access to the river while protecting riparian vegetation.

River Dynamics

18. Work with irrigators, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers, and others to achieve a more natural river flow pattern and ramping rates to enhance riparian plant regeneration and riverbank stability and aquatic habitat.
19. Manage bank erosion as a natural process and allow the river to move where possible.
20. Develop criteria for debris and snag removal with interested agencies and irrigation entities; agencies meet and review before implementing.
21. Support existing winter and spring river flows and work with other city departments to investigate obtaining water rights to meet aesthetic, ecological, recreational goals.
22. Coordinate with Boise Planning and Development Services and Boise Public Works Department to develop plans for using BPR land for flood mitigation.



Boise Parks and Recreation crews have developed expertise at constructing river barbs and using bioengineering techniques to protect and restore river banks.



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The mayor and boating enthusiasts celebrate the opening of the river park at a large public event.

Information and Education

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Recreationists and other river corridor users depend on signs, printed materials, and digital information for directions, rules, and event information. An integrated public information program that includes these tools will play an important role in helping BPR manage the large numbers of people who recreate in or pass through the river corridor. The 17 Information and Education recommendations are listed at the end of this section, page 19.

Digital communication trends are moving toward interactive information and two-way communication. To capitalize on these trends, BPR needs to employ the expertise to build and maintain interactive sites. BPR hosts a Facebook page and maintains a website for this Plan, including an interactive map of the river corridor.

Monthly reports are compiled about the number of viewers of each page, the type of device used to view it, and other metrics. Consistently, the Greenbelt is one of the top 10 pages visited. Also, there is an increase in mobile users accessing the BPR website. Websites with information about the Boise River include:

1. Pages on the BPR website:
 - Boise River Resource Management and Master Plan
 - Greenbelt
 - Floating the Boise River
 - Greenbelt E-Newsletter
2. Boise River Mobile Tour: managed by another organization and linked from BPR website
3. Boise River Trails Plan: managed by Ada County and linked from BPR website

A comprehensive public information program includes communication tools for people who depend on print and broadcast messages. BPR continues to issue regular press releases and print maps, guides, and informational



Boise State University published a journal article about the Greenbelt.



Recreationists and other river corridor users depend on signs, printed materials, and digital information for directions, rules, and event information.

Information and Education



This warning sign is posted downstream of Ann Morrison Park.



The float rules for the Boise River are posted at Barber Park in Ada County and along the path in the city.



Signage below the Boise River Park is on the 36th Street pedestrian bridge.



Some signs are visible from the path, and not the river.

brochures. For example, an updated Greenbelt map, Greenbelt Map and Guide for Boise, Idaho, was printed in May 2014. The map was designed as a wayfinding guide to the Greenbelt and riverside parks. An electronic version of the map is available on the BPR website.

1. Signage

Like other types of infrastructure, signage for a park system benefits from planning and design. Signage provides a platform for integrating the multiple ways people receive information about parks and the Greenbelt.

Over the years, if a sign was needed, one was made and erected. The result is a mix of signs with different designs, messages, and types of information that are not systematic. For example, not all bridges are labeled, and those with signs usually are labeled on the upstream side only. Centralizing some information at path nodes or in parks may result in fewer signs along the river corridor.

Digital technology offers opportunities to link signs in the river corridor to interactive maps, environmental education, historic information, and the BPR website. Device-readable codes and other emerging technologies can be used to keep the signage system integrated into a comprehensive public information program.

In 2013, the city embarked on a wayfinding project for the downtown core that included some parks and part of the path. Wayfinding helps people find landmarks, public buildings, and other community elements through a system of signage that has an understandable pattern and hierarchy of information. Connections to and from the Greenbelt path to places in the city help people navigate through the community. This program supports comments from the Greenbelt Users Survey, page 26, asking for improved signage along the path.

2. Education and Interpretation

BPR is expanding its role in environmental education and interpretation. Recommendations in the Public Safety, Recreation, and Natural Resource sections include coordinating and expanding programs that inform and educate the public about safely enjoying the river corridor without degrading the habitat and vegetation.

BPR is a partner in Boise Environmental Education (BEE), a multi-agency partnership providing programs to children and adults. BPR collaborates with the Boise Public Works Department to offer an assortment of classroom lessons, field

trips, regular monthly programs, and special events designed to educate, inform, and entertain. Most programs are offered at the Boise WaterShed Education Center and the Jim Hall Foothills Learning Center. Zoo Boise, Community Forestry, Boise Public Library, and Department of Arts and History are other Boise City partners. In addition, Partners for Clean Water and the Boise State University National Science Foundation GK – 12 Program support the program.

In 2014, BPR became a sponsor of the Sagebrush Steppe Master Naturalist Chapter. The Chapter members engage in environmental education and citizen science projects for sponsors, including several of the BEE partners.

As mentioned in the Natural Resource section, page x, the Boise River is a designated Important Bird Area (IBA). There are several IBA signs on the Bethune Church River Trail and on the Ada County portion of the Greenbelt upstream of the East Parkcenter Bridge.

In 2013, as a partner of BEE, BPR published an online nature guide featuring wildlife commonly seen in parks and near the Greenbelt. The Nature Guide for Boise Parks is linked from the BEE and BPR websites. The guide includes information about the effects of domestic pets on the riparian habitat and native wildlife.

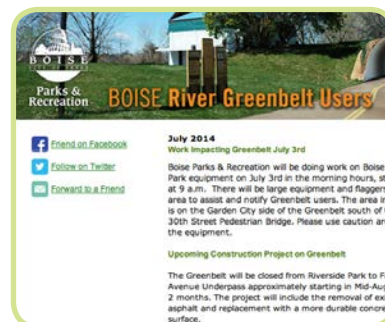
In 2013, a Park Ambassador volunteer program was launched at Marianne Williams, Kathryn Albertson, and Veterans Parks. The program helps to bridge the gap between the public and BPR, and gives citizens an opportunity to promote community stewardship of their parks. Through regular park visits, Park Ambassadors document maintenance needs and report vandalism. Park Ambassadors encourage positive use of the parks by promoting safety, explaining park rules, and sharing information about points of interest by interacting with park visitors.

In 2014, the Park Ambassador program was expanded to Julia Davis Park. The Community Programs Coordinator manages the Park Ambassador Program. In the first year of the program, 18 people signed on as Park Ambassadors. As the program expands, Park Ambassadors may take on the role of interpretation and guides for nature walks and park tours.

The Boise Department of Arts and History is the likely partner for developing historic information for sites along the Greenbelt and in parks. Historic walking tours have been developed for other parts of the city. The tour information could be provided by volunteer guides, on a website, or a mobile application.



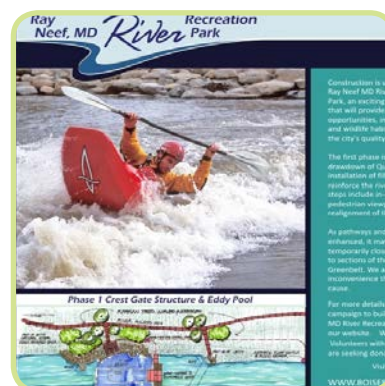
ACHD wayfinding signs direct motorists and pedestrians to parks.



A digital newsletter includes information about Greenbelt construction.



The Greenbelt map was updated in 2013.



Signs inform the public about development of parks and how they can be involved.



Information and Education

As part of Boise's sesquicentennial celebration, the Boise River Mobile Tour was developed through a Boise Arts and History 150 grant. The online app includes historical, cultural, and environmental information about more than 20 sites located on river right, between the Highway 21 and East Parkcenter bridges.

Nonprofit groups, such as the Boise River Enhancement Network, Idaho Rivers United, and Ted Trueblood Chapter of Trout Unlimited, provide information, programs, and activities related to the Boise River.

3. Information and Education Recommendations

These recommendations support BPR's commitment to providing useful communication tools and interpretive programs to all river corridor users.

2014 Information and Education Recommendations

Signs

1. Develop and implement a comprehensive signage plan for the Greenbelt path and river corridor.
2. Integrate BPR signage into the wayfinding programs being implemented by the city and Ada County Highway District, including connections to the Greenbelt, parks, bicycle routes, and landmarks.
3. Integrate signage into a system of public information that uses digital technology.
4. Identify, map, and sign restrooms in parks and other city buildings near the river and Greenbelt.

Education

5. Create interactive maps with information about the river corridor and parks.
6. Use current technology so users can access digital information from signage.
7. Put links on the BPR website to other organizations with Boise River information.
8. Expand and maintain the online Nature Guide for Boise Parks.
9. Create virtual education tours; document educational programs and post the curriculum online.

Interpretation

10. Develop interpretive and environmental education and activities in coordination with:
 - Boise WaterShed Environmental Education Center
 - Park Ambassador Program
 - Boise City Department of Arts and History
 - Ada County Parks and Waterways
 - Other Boise Environmental Education partners and local environmental education providers
11. Dedicate a position or portion of a position to environmental education and to interpreting history and the environment in the river corridor.
12. Use mobile media sites in an interpretive program along the river corridor.
13. Create demonstration sites for Integrated Pest Management, protecting pollinators, attracting butterflies, etc.
14. Use multiple media to educate river corridor users about preventing impacts and resource damage.
15. Erect temporary signs explaining resource damage and restoration efforts.
16. Educate river corridor visitors about the impact of pets and domestic animals, especially cats, on wildlife.
17. Work with bicycle rental concessionaires to provide Greenbelt etiquette information.



Student volunteers help test water samples.



Citizens offered feedback about the plan at public open houses.

2014 Recommendations

Public Safety Recommendations				
	Public Safety	Recreation	Natural Resources	Education and Information
Many of the recommendations are applicable to more than one section. The matrix shows that a recommendation may apply to more than one area.				
Public Safety				
1. Develop emergency access points that meet Boise Fire Department (BFD) requirements		X	X	
2. Post warning signs on the path that BFD can bill for river rescues above a certain flow. Link to river flow sites from BPR pages - river users can determine if flow level is appropriate for their skills		X		X
3. Encourage law enforcement to use non-motorized craft except for training and emergencies				
4. Limit lighting on the Greenbelt path to the downtown core. Reevaluate lighting between Municipal Park and Americana Blvd. as night time use increases. If lighting is installed, choose standards that limit light pollution.			X	
5. Convene a meeting of representatives from local government jurisdictions through which the Boise River flows, to decide on a common mileage marker system.		X		X
6. Evaluate whether a river ranger program is needed as recreation expands on the river		X		
7. Work with adjacent local governments to develop a consistent alcohol use policy in the river corridor				
8. Advocate for the safety of floaters, bicyclists and pedestrians in the design and construction of new or replacement bridges in the City of Boise.		X		
9. Coordinate with the Volunteer Greenbelt patrol and bicycle advocates on safety issues and problem areas and to develop on-going safety education and etiquette events and information.		X		X

Recreation Recommendations				
Greenbelt and Paths				
1. Install bicycle fix-it stations at strategic locations along the path	X			
2. Coordinate with ACHD and home owners associations to delineate bike path and improve wayfinding on streets around Bethine Church River Trail	X			
3. Put bollards at the entrances to pedestrian paths to reinforce bicycle prohibition				X
4. Work with the property owner to develop an unpaved official path behind the Marden Street water purification plant				
5. Maintain or create a dual path system (paved/unpaved) where possible to reduce congestion and to improve safety	X			
6. Create access from the WaterShed at the West Boise Wastewater Treatment Plant to the Greenbelt path	X			
River Access				
7. Inventory and assess developed, designated and informal river access sites. Rehabilitate sites where needed			X	
8. Identify areas where dogs legally can enter the river off leash				
9. Consider benches or overlooks at sites with views; at end of river access trails, e.g., near Government Island site on the proposed path extension				X
10. Develop access for multiple purposes where possible. Limit public access for trailered boats				

Recreation Recommendations

	Public Safety	Recreation	Natural Resources	Education and Information
Many of the recommendations are applicable to more than one section. The matrix shows that a recommendation may apply to more than one area.				
Boating and Floating				
11. Work with irrigators and recreationists, to extend the Boise River Park concept to other diversions on the river				
12. Develop a portage plan that includes strategies for portage trails around diversions, dams and other obstructions	X			
13. Implement river reach management according to recreation experience and recommended boating skills			X	
14. Work with recreationists to improve access for non-motorized boaters	X			
15. Partner with irrigators, recreationists, agencies to reduce hazards and to improve recreation opportunities at diversions	X			
16. Evaluate locating a pick-up drop-off area for non-motorized boats upstream of the Settlers canal diversion				
17. Build the boat ramp at Willow Lane when a public boat ramp is available downstream	X			
18. Survey river users to determine commonly used put-in and take-out sites upstream of Ann Morrison Park. Prioritize sites for development, maintenance or closure of unsustainable sites	X		X	
Recreation Demand				
19. Use regular surveys, counts and other methods to collect data and monitor long-term trends in order to determine user capacity, environmental sustainability and tolerance levels of.	X		X	X
20. Reduce river user conflicts by designating special use areas, e.g., bungee boarding,	X			X
21. Inventory rope swing areas along river and ponds and assess whether to develop, revegetate, or close	X		X	
22. Conduct an economic analysis of market and non-market values of the river corridor			X	X
23. Address parking options on private property near the path:	X			
a. Seek agreements with owners of private parking lots for after-hours Greenbelt path user parking				
b. Enforce existing agreements in private lots for designated Greenbelt path user parking				
24. Inventory and assess where bicycle racks are needed				
Restrooms				
25. Locate restrooms in new riverside parks to be accessible from the river and create accessible routes between restrooms and the river in existing parks				
26. Explore constructing a restroom on the proposed path extension between Americana Boulevard and the Main Street Bridge				
27. Place portable, seasonal restrooms at heavily used recreation areas where a permanent restroom is not feasible				
Litter Management				
28. Encourage zero tolerance of litter through educational and volunteer programs				X
29. Provide recycling containers in the river corridor at high use areas and river access points			X	

Natural Resource Recommendations

**Many of the recommendations are applicable to more than one section.
The matrix shows that a recommendation may apply to more than one area.**

Habitat Management

	Public Safety	Recreation	Natural Resources	Education and Information
1. Commission an ecological assessment of terrestrial and aquatic habitat; concentrating on the riparian zone and river setback, to update information from the 2002 Stewardship Plan <ul style="list-style-type: none"> • Develop a riparian Management plan when the ecological study is complete, include best management practices • Collaborate with other city departments, E.G. NPDES requirements; flooding • Update the Boise River System A, B, C lands with BPDS using the ecological assessment 	X	X X		X X
2. Work with IDFG and others to improve habitat and restore structure and function of riparian zone vegetation				
3. Move the path back from the river bank and wetlands wherever possible; consider raised walkways in ecologically sensitive areas; expand no-mow zones		X		
4. Use bioengineering and native plants to revegetate and reclaim river banks				
5. Document river bank projects in a spatial database so project impacts can be monitored				
6. Use volunteers to wrap diverse age classes of trees to protect from beavers				
7. Remove beavers when a significant amount of vegetation is damaged in an area and work with IDFG to relocate problem beavers				
8. Inventory and analyze ponds for recreational, aquatic, terrestrial habitat values and pit capture potential; develop and implement a management approach for each pond	X	X		
9. Work with irrigation interests to prevent fish from entering irrigation canals and ensure that new structures do not block fish migration				X
10. Provide fish stocking sites on the river and ponds for IDFG	X	X		X
11. Create a position for a naturalist or ecologist who would provide guidance on natural resource management, rehabilitation and environmental education		X		

Wetlands and Water Quality

12. Inventory and document wetland enhancement sites along the river and in tributaries that are not wetland banking sites				
13. Form partnerships to build treatment wetlands on BPR lands				X
14. Restore riparian areas; plant trees to shade the water				
15. Incorporate sustainable/green infrastructure in park development and redevelopment				X
16. Work with BDPW and others to identify projects that improve habitat and water quality and meet NPDES permit requirements, including land acquisition				
17. Continue, and expand where possible, the IPM program				

River Dynamics

18. Work with irrigators, USBR, USACE and others to achieve a more natural river flow pattern and ramping rates to enhance riparian plant regeneration and river bank stability and aquatic habitat				
19. Manage bank erosion as a natural process and allow the river to move where possible				
20. Develop criteria for debris and snag removal with interested agencies and irrigation entities; agencies meet and review before implementing	X	X		

Natural Resource Recommendations

	Public Safety	Recreation	Natural Resources	Education and Information
Many of the recommendations are applicable to more than one section. The matrix shows that a recommendation may apply to more than one area.				
21. Support existing winter and spring river flows and work with other city departments to Investigate obtaining water rights to meet aesthetic, ecological, recreational goals				
22. Coordinate with BPDS and BDPW to develop plans for using BPR land for flood damage reduction	X			

Education and Information Recommendations

Signs				
1. Develop and implement a comprehensive signage plan for the Greenbelt path and river corridor	X	X		
2. Integrate BPR signage into the wayfinding programs being implemented by the city and ACHD, including connections to the Greenbelt , parks, bicycle routes, landmarks	X	X		
3. Integrate signage into a system of public information that uses digital technology				
4. Identify, map, and sign restrooms in parks and other city buildings near the river and Greenbelt				
Education				
5. Create online, interactive maps with information about the river corridor and parks		X	X	
6. Use current technology so users can access digital information from signage				
7. Put links on the Boise Parks and Recreation website to other organizations with Boise River information.	X	X	X	
8. Expand and maintain the online Nature Guide for Boise Parks		X	X	
9. Create virtual education tours; document educational programs and post the curriculum online				
Interpretation				
10. Develop interpretive and environmental education and activities in coordination with: <ul style="list-style-type: none"> a. Boise WaterShed Environmental Education Center b. The Park Ambassador Program c. Boise City Department of Arts and History d. Ada County Parks and Waterways e. Other Boise Environmental Education partners and other local environmental education providers 	X	X	X	
11. Dedicate a position or portion of a position to environmental education and to interpreting history and the environment in the river corridor		X	X	
12. Use mobile media sites in an interpretive program along the river corridor				
13. Create demonstration sites for Integrated Pest Management, protecting pollinators, attracting butterflies, etc.,			X	
14. Use multiple media to educate river corridor users about preventing impacts and resource damage.		X	X	
15. Erect temporary signs explaining resource damage and restoration efforts			X	
16. Educate river corridor visitors about the impact of pets and domestic animals, especially cats, on wildlife			X	
17. Work with bicycle rental concessionaires to have them provide Greenbelt etiquette information	X		X	

1999 Report Card

Boise River Resource Management and Master Plan 1999

A report card on the recommendations made in six categories:
Public Safety • Recreation • Wildlife, Fisheries and Riparian Zone • River Bank Stabilization, Treatments and Hydrology • Water Quality • Mitigation Program

PUBLIC SAFETY		Status	Comment
a. Emergency Access Points			
1. Identify at least one potential access between each diversion	O	BFD says access is sufficient, but can be improved	
2. Every tuber port should include emergency access.	PC	Not every port is conducive to emergency access	
3. Develop access points for multiple purposes.	O	Where feasible, emergency and recreational access provided	
4. Develop a jointly funded river ranger program.	PC	BPD Volunteer Greenbelt patrol is partially filling the need	
5. Tie recreational skill levels to flow levels.	PC	General recreation flows are 250 to 1,500 cfs. BFD rescues above a posted flow can be billed to rescued person	
b. Irrigation Diversions and Weirs			
1. Provide portages around all diversions	NC	Informal portages are available	
2. Partner with irrigators, recreationists, agencies to identify and remove hazards at diversions.	PC	Staff develop partnerships as opportunities arise. Partnerships developed with Thurman Mill, Farmers Union, Boise Valley Irrigation District.	
3. Investigate liability associated with portages on diversions	C	The city assumes liability for portages it constructs	
4. Remove diversions no longer in use.	NA	All irrigation diversions in planning area are being used	
5. Develop safety guidelines for materials in river, on banks.	BMP	Have been developed and are being implemented	
6. Meet with irrigators annually to discuss diversions.	PC	Staff attend annual irrigation meetings and attend board of director meetings as needed to discuss park related water matters	
c. River Debris and Snags			
1. Continue to identify dangerous debris and snags to remove for safety reasons.	O	Ongoing in cooperation with BFD and Ada County	
2. Evaluate snags case by case. Remove dangerous snags from tuber channel, Barber to Ann Morrison Parks.	O	Ongoing in cooperatio with BFD and Ada County	
3. Seek cost sharing with Ada County for snag removal.	C	City and county share equipment and personnel costs	
4. Work with IDFG, conservation organizations to mitigate	O	Several projects accomplished with volunteers and Trout Unlimited	
d. Lighting and Emergency Phones			
1. Provide lighting along the Greenbelt from Municipal Park to Americana Blvd.	PC	Greenbelt lighted from Broadway to Americana	
2. Provide pay phones - Greenbelt, tuber ports, parks, bridges	NA	No longer needed due to technology improvements	
3. Continue to evaluate feasibility of emergency phones.	NA	No longer needed due to technology improvements	

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PUBLIC SAFETY			Status	Comment
e. Existing Warning Signs; Reference points				
1. Limit signs to major hazards and presence of phones.	PC	Limited number of signs posted		
2. Use river crossings for some signs, e.g., bridge name	PC	Some bridges signed on upstream side		
3. Simplify the signs - start mileage at Sandy Point	PC	DOTS program implemented. O is at 8th Street bridge		
4. Put a map at each phone.	NA			
5. Identify bridges with signs visible from the river.	PC	Some bridges signed on upstream side		
6. Have separate signs for river and Greenbelt users.	PC	Limited		
f. Alcohol Use on the Boise River				
1. Investigate policies to limit or prohibit alcohol on the Boise River.	C	Alcohol use regulated by city ordinance - successful		
2. Work with Ada County on an alcohol policy.	C	City alcohol policy sign posted at Barber Park river access		
3. Develop a jointly funded ranger program.	C	BPD instituted Volunteer Greenbelt Patrol		
4. Have a consistent alcohol policy for entire river corridor.	PC			
g. Structures				
1. Connect Greenbelt on south side between Americana and Main Street bridges.	O	Grant has been awarded and design and engineering are underway for 2015 construction		
2. Remove deck and rehabilitate bank if Greenbelt is not extended.	O	Deck will be removed when path is constructed in 2015		
H. Design of Bridges				
1. Urge ACHD and ITD to design bridge pilings and abutments that are safe for river recreationists.	O	Staff provide comments when bridges are constructed		
2. Request bridges be used for informational signs for river users.	O			
3. Use bridge construction to provide access for emergency vehicles and river user safety.	O	Mixed results - river access included in Broadway Bridge replacement. Access not achieved at W, E Parkcenter Bridges		
4. Create a marker on at least one bridge that shows flow levels.	NC			
i. Greenbelt Path				
1. Conduct a study to identify types and numbers of users of the Greenbelt path throughout the year.	O	BPR has collaborated with BSU in 2012 and 2013 on a Greenbelt users survey		
2. Standard path width should be 12' wherever possible.	BMP	Design standard - built this way where possible		
3. Maintain 6' minimum path standard for unpaved paths.	BMP	Design standard - built this way where possible		
4. Educate users to ride at appropriate speeds - no speed limit.	O	Ongoing - signs posted for slow zones, areas of congestion		
5. Have dual path system where possible to separate users.	PC	Limited opportunities; success in Riverside and Warm Springs Parks and Bethine Church Nature Trail		
6. Continue safety programs, e.g., "Stay to the Right."	O			
7. Stripe the paved Greenbelt path.	BMP	Striping is on annual work plans and schedules		
8. Require dogs to be on leashes.	BMP	Signs in parks and on Greenbelt require dogs on leashes		
9. Conduct a survey of property boundaries, confirm ownership of easements and land parcels.	O			

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RECREATION			Status	Comment
a. Restrooms				
1. Locate restrooms in new parks to be more accessible from the river	O			Part of Esther Simplot Park design, Julia Davis rest stop
2. Put restrooms at tuber ports	O/PC			Restrooms exist in vicinity of current tuber ports
3. Look for opportunities to put restrooms on the south side of the river	O/PC			Seasonal restroom at River Quarry
4. Create accessible routes between river and restrooms	PC			Orange footbridge, Julia Davis Park, design for Esther Simplot
5. Use portable restrooms at strategic locations along the river and Greenbelt in summer	O			River Quarry, BRRP
b. Developed Access Points				
1. Develop river access or tuber ports between Barber and Ann Morrison Parks	PC			Tuber port developed in Ann Morrison Park
2. Potential access for boaters at Fire Training Center, Willow Lane	PC			Ramp is planned for Willow Lane; coordinating take out with Garden City
3. Develop standard design for pedestrian accessed tuber port with emergency access	BMP			Design is not standard, but required elements are
c. Heavily Used Undeveloped Recreation Sites				
1. Block some volunteer trails	O			Vegetation, rocks and logs used to block some trails
2. Develop some trails	NC			
3. Explore opportunities to create overlooks or benches at end of river access trails	PC			A number of benches have been installed
4. Revegetate where resource damage is occurring	PC			A number of sites have been revegetated, e.g. Old Timer's Shelter, near Cottonwood Apts., Bethine Church Nature Trail
5. Use temporary educational signs to explain damage, repair	O			Place signs during construction
6. Continue Adopt-A-River volunteer program	O			This is a popular program now called Adopt the Greenbelt
7. Create safe, accessible tuber ports with restrooms	O			River quarry, Julia Davis, Ann Morrison Parks
8. Consistently enforce no camping regulation along Greenbelt	BMP			Move to Public Safety BMP section.
d. Trails				
1. No more footbridges in Boise; perhaps Garden City	PC			36th Street footbridge at the BRPP connects to Garden City
2. Do not put a path along Warm springs Golf Course river riparian area	NA			
3. Link Greenbelt path to neighborhoods and other trails	NA			
4. Sign and mark bicycle route alternative to natural path	PC			Path marked through Spring Meadows; addt'l signage needed
5. Put bollards or other obstacles at end of unpaved path	PC			Bethine Church Natural Path is signed no bikes. Needs bollards, sign at E Parkcenter Bridge
6. Seek parking opportunities for users of natural paths	PC			Parking at Bown Crossing, Marianne Williams Park, River Quarry
e. Parking				
1. The river and Greenbelt user study should examine parking	O			Parking questions were in 2012 and 2013 surveys
2. No charge for tuber parking in Ann Morrison Park	O			

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RECREATION	Status	Comment
3. New tuber and boater ports should consider parking	BMP	Providing parking is part of the design process
4. City and county seek after hours parking agreements with businesses for Greenbelt user parking	O	Providing Greenbelt parking often is a condition of development, i.e., River Quarry, Kinetics.
5. Provide looped shuttle service between tuber ports	NC	Continue to explore as ports are developed
6. More bicycle racks at destination places	PC/O	Racks added at parks and along Greenbelt
f. Boating		
1. Work with kayakers, irrigators to develop a kayak course	PC	Phase 1 of the BRPP is complete; phase 2 is being planned
2. Create one or more access places for canoeists	PC	Access at BRRP, planned at Willow Lane
3. Create safe portages around all diversions	NC/O	
4. Determine easement availability at portage sites	NC	
5. Encourage boating downstream of Ann Morrison Park	PC	BRRP attracts boaters; boat access planned for downstream
6. No public access for boats on trailers	PC/O	Trailer access planned for Willow Lane
g. Recreation Demand		
1. Comprehensive recreation study to create a baseline to measure changes in user numbers, types, patterns, etc.	PC	BPR has worked with BSU to conduct a survey of Greenbelt users in 2012 and 2013
2. Do not permit uses that are a safety hazard	O	BPR commissioners and staff screen applications
3. Education increases in importance as users increase	O	Policies reviewed/developed as new uses occur and requests are presented
4. Identify traffic conflict areas on Greenbelt and widen path or improve traffic flow	O	
5. Establish and sign bypasses in areas of congestion	PC	Dual paths at Shoreline and Riverside parks
6. Designate some high use path areas	PC	
7. Develop two paths in high use areas	NC	Limited opportunity due to space restrictions
8. Monitor recreation trends so BPR can manage proactively	O	Staff monitor trends and use on ongoing basis
9. Monitor cumulative effect of signs, trash cans, benches, etc. Assess need for facilities management plan.	PC/O	Benches, trash cans inventoried. Sign plan considered
10. Consider ways to spread out tubing use, users	O	
11. Explore potential for consolidating recreation services and management in city and its impact area	NA	City has not expressed interest in creating a parks & rec district or other new taxing district that crosses multiple jurisdictions
12. Develop a jointly funded river ranger program	PC	
H. Litter Management		
1. Continue the Adopt-A-River volunteer program	O/BMP	Popular volunteer program now called Adopt the Greenbelt
2. Adopt zero tolerance attitude toward litter	O	
3. Educate users about negative effects of litter on resources	O	
4. Provide as many trasn cans as possible in convenient areas	O	Numerous trash cans have been added
5. Put trash cans at all restrooms and near bridges	C/BMP	
6. Ban cans and bottles on the Boise River	C/BMP	Glass containers prohibited from river by ordinance

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RECREATION			Status	Comment
i. Concessionaires				
1. Continue to review permit apps. using existing criteria	BMP	BPR commission reviews all applications		
2. Create proactive policies to deal with concessionaires near, but not on the Greenbelt	O/BMP			

WILDLIFE, FISHERIES AND RIPARIAN ZONE		
	Status	Comment
a. Cottonwood Forest and Riparian Zone		
1. Develop management plan for riparian zone and river setback. Inventory native and invasive species	C	The Stewardship Plan was completed in 2002 by the US Army Corps of Engineers. It included a basic vegetation inventory and management guidelines
2. Develop a list of desirable plant species and their values	C/O	Included in Stewardship Plan
3. Use woody debris and plants to block and rehabilitate volunteer trails	BMP	BPR staff have developed expertise in repair and revegetation and have blockedand rehabilitated a number of “volunteer “paths with varying success.
4. Move path away from river in places for riparian zone	O	Has been done where there is room, staff looking for addt'l places
5. Grow native plants between river and Greenbelt path	O	Revegetation and restoration uses native plants
6. Control invasive plants and weeds	O	Part of IPM; special projects
7. Post educational signs about natural areas, rehabilitation	O	Temporary signs are posted when revegetation is done
8. Establish relationship with BOR/COE to influence flows to benefit riparian zone	O	
9. Develop BMPs for Greenbelt path, river setback, park edges along the Boise River	C/O	Staff have developed BMP’s and review and update them on a regular basis
b. Important Wildlife Habitat and Wildlife Use Areas		
1. Inventory remaining habitat and its values for wildlife	PC/O	Habitat discussed in Stewardship Plan
2. Update Boise River system Ordinance (BRSO) if necessary	PC	Ramp is planned for Willow Lane; coordinating take out with Garden City
3. Designate and protect remaining high quality habitat	PC	Design is not standard, but required elements are
4. Develop riparian management plan for wildlife habitat and use areas to minimize effects of human use	PC/O	Management guidelines in Stewardship Plan
5. BPR has a responsibility to provide habitat on its lands	O/BMP	Wetlands have been developed at Marianne Williams Park, Willow Lane Park, Warm Springs Community Park along the Greenbelt and at Hyatt Hidden Lakes Reserve off the river
6. Educate about cat impacts on bird and small mammal populations	PC	Staff trap and remove feral and domestic cats at Albertsons Park as needed.
7. Seek stable funding for a naturalist or ecologist	NC	
8. Naturalist/ecologist would have management, educational responsibilities	NC	
c. Fisheries Habitat		
1. Take opportunities to work with other organizations to improve fish habitat in the Boise River through the city	O	BPR has partnered with conservation, fishing organizations and others to improve fish habitat in the mainstem and side streams

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WILDLIFE, FISHERIES AND RIPARIAN ZONE			Status	Comment
2. Work with IDFG, other organizations to improve habitat and mitigate for removal of snags for floaters	O	BPR works with BFD and Ada County on snag and debris removal between Barber and Ann Morrison Parks		
3. Establish relationships with BOR and COE to influence river flows to benefit fish and wildlife	O	Staff make comments as opportunities arise.		
4. Investigate city taking leadership in managing the Loggers Creek setback agreements in River Run and Wood Duck Island	NC	BPR does not have the authority or resources to manage Logger's Creek setbacks or other private developments. Idaho Fish & Game has management authority of Logger's Creek.		
d. Beaver Management				
1. Manage beavers aggressively - spay/neuter, relocate, euthanize and remove	BMP	Spaying/neutering was discontinued as it did not prove effective.		
2. Determine acceptable population of beavers	O	Beavers are removed when damage exceeds 60% of trees within a certain area.		
3. Beaver management should be a component of the riparian management plan	O/BMP	Beaver management is a program with budget and reports		
4. Continue to have volunteers wrap trees with wire mesh	O	Tree wrapping is a popular volunteer activity		
5. Consult with NRCS about beaver relocation	C	NRCS no longer relocates beavers. IDFG periodically relocates beavers.		
e. Educational Opportunities				
1. Identify potential partners for an interpretive program	PC/O	Birding Trail on Bethine Church Natural Trail		
2. Explore general interest in an interpretation program along the river	O	Staff are evaluating expanding volunteer park ambassador programs		
3. Identify educational opportunities related to department plans and objectives	O			
4. Make a guide or brochure with educational and interpretive information about the Boise river and Greenbelt	PC	On line guide to plants and animals one might see in Boise Parks on BPR website		
5. Restrict number of signs on Greenbelt. Use kiosks	O	Staff are in the process of developing a park and Greenbelt sign/wayfinding plan		
6. Create volunteer interpreter program	PC	Park Ambassador Program started in 2012		

River Bank Stabilization, Treatments and Hydrology			Status	Comment
1. Protect and restore river banks to meet multiple objectives	O/BMP	BPR and Public Works survey the river banks annually. One or two projects are done annually to stem erosion, revegetate, block access, etc.		
2. Identify diversion structures contributing to resource damage (Greenbelt and river banks). Establish priorities for repair and enhancements associated with diversions	PC/O	Thurman Mill diversion is the only one replaced so far. BPR works with diversion owners as specific repairs are needed		
3. Use sites as demonstration areas. Biotech has top priority	BMP	Bioengineering is preferred; plant materials are local		
4. Encourage City to do comprehensive flood protection study to include meander channels as well as flood channels	NC	See NOAA Boise River inundation map*, updated FEMA flood Insurance Rate Map will be released in 2014 or 2015; beyond BPR's mission		
5. Enter into discussions/negotiations with irrigators about repairing diversions	O	Development of the BRRP has helped BPR build relationships with irrigation entities, which are becoming more receptive to recreational uses at diversions.		

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Water Quality	Status	Comment
a. Non-Point Pollution Sources		
1. Continue with no mow zones, IPM, Mutt Mitts	O	No mow zones are established and increased where possible; IPM is a BMP; stormwater bio-swales are being incorporated
2. Review and update regularly the stormwater site operation and maintenance plans.	O/BMP	Stormwater drainage inventory and operations and management plans are updated yearly
3. Form partnerships with other agencies to build treatment wetlands on park land wherever feasible.	PC/O	Examples: Warm Springs Park Wetland, Hyatt Reserve, Marianne Williams Park, Julia Davis Creek
b. Point Source Pollution		
1. Pollution sources should be noted by BPR personnel and reported to appropriate agency.	O/BMP	Part of maintenance staff training
2. Develop flood protection measures for potential pollution sources on park land	C	A flood evacuation plan is in place that includes moving contaminants. Shutting off utilities and tanks, etc.
3. Maintain and update as necessary the Spill Response Plan	O/BMP	The Spill Response Plan is reviewed and updated yearly; spill response kits are located near each park
4. Integrate stormwater management into park design. Manage stormwater onsite.	BMP	This is a design principle employed on all BPR lands
5. Work with Public Works dept. to incorporate NPDES into park management	BMP	BPR is an integral player in the joint NPDES permit
6. Stormwater from outside park boundaries should be treated in parks when feasible	O	See non-point recommendation 3. Stormwater agreement with WINCO for Julia Davis Park pond.
c. Integrated Pest Management		
1. Continue and expand IPM program	BMP	IPM is fully integrated into park operations and maintenance.
2. Provide information on IPM to land owners	PC/O	The Information is on website.
3. Support IPM of other landowners by sharing info and providing examples.	PC/O	Turf, irrigation and landscape design topics have been added to Park Resource public education classes.
4. Give IPM info to pest control companies that get a permit to refill trucks from city fire hydrants		The city does not issue permits to refill trucks with water

Mitigation Program	Status	Comment
1. Develop mitigation program after comprehensive review of the issues - legal, hydrological, biological	C	In 2006 city council adopted an agreement with The Wetlands Group for mitigation banking opportunities.
2. Develop a list of potential mitigation projects.	C	A list of six potential mitigation sites in city parks was identified in the 2006 MOA.
3. City should establish wetlands mitigation bank to be administered by BPR	C	The MOA established a mitigation bank
4. Monitoring plan should be developed as part of mitigation program	BMP	The MOA specifies that The Wetlands Group must meet requirements of the USACE, which include monitoring
5. Communicate with other city departments about potential mitigation projects	O	BPR and Public works survey river banks annually

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Best Management Practices

Recommendations from the 1999 plan have been integrated into Boise Parks and Recreation Department operations and maintenance as routine or related best management practices.

Public Safety

- Develop river access points for multiple purposes, e.g., emergency access and recreational access
- Boise City ordinance prohibits alcohol use within 250 feet of the Greenbelt in parks and is not permitted on the Greenbelt between parks. Alcohol is not allowed on the Boise River within the city limits.
- Boise City ordinance prohibits glass containers on the river.
- Safety guidelines for materials used in the river or on the banks is part of the design and best management practices of all work done by the City of Boise in the river or on the banks.
- BPR takes every opportunity to make Greenbelt underpasses safer through design; reconstruction, such as increasing path width; technology, such as improving lighting; installation of mirrors, etc.
- The paved path design standard used by BPR is for a 12-foot wide path with a 1-foot gravel shoulder on each side.
- The unpaved path design standard used by BPR is for a path at least 6-feet wide. This width meets requirements in the Americans with Disabilities Act.
- Striping the Greenbelt and other paths is an ongoing maintenance activity performed by BPR.
- Dogs must be on leashes on the Greenbelt.
- The no camping regulation along the Greenbelt path is strictly enforced. (Boise City ordinance.)
- Some activities and uses are inappropriate for the Greenbelt and should not be permitted for safety reasons, i.e., wheeled racing events, rickshaws, Segways, etc.
- An on-going property survey is conducted to verify ownership boundaries, easements, license agreements and other agreements.

Recreation

- A list of standard features has been developed for constructed tuber ports, however the specific design depends on the site.
- Key considerations in locating new tuber-boater ports are parking and public transit.
- Where possible, restrooms will be located at constructed tuber ports
- The Adopt the Greenbelt program is popular and will be continuing.
- Provide as many trash cans as possible in convenient areas.
- Provide trash cans at all restrooms, including portables, and near bridges.
- Provide bicycle racks at destination sites and gathering places.
- Conduct a property survey to verify ownership boundaries, easements, license agreements and other agreements.
- Continue to review concession permit applications on a case-by-case basis using the existing criteria.
- Coordinate among Parks and Recreation, Planning and Zoning and City Clerk staffs to avoid impacts to the parks and Greenbelt path from vendors operating off park lands.

Natural Resources

(Wildlife, Fisheries and Riparian Zone and Mitigation Program in 1999 plan)

- Control invasive plants and noxious weeds, e.g., purple loosestrife, puncture vine. Use biological controls, when possible.
- City crews follow horticultural best management practices on all BPR lands. BMPs are in the Integrated Pest Management (IPM) Plan, which is updated regularly, Turf Management and Water Conservation Plans. The plans are on the BPR website.
- The Boise River System Overlay ordinance classifies riparian land according to its habitat quality and restoration potential. The highest quality habitat, Class A, is protected to the greatest level from development.

Best Management Practices

- Habitat is also a recreation issue as people like to watch wildlife. BPR has a responsibility to provide habitat on lands it manages.
- Wildlife habitat, a priority of BPR, has been created or improved at a number of sites including Hyatt Wetlands, Willow Lane, Warm Springs Park, Marianne Williams Park and other wetland mitigation sites.
- Woody debris, plant materials, such as Woods Rose, and other natural materials and techniques are used to block and rehabilitate volunteer trails.
- BPR activities minimize negative impacts to wildlife and habitat and maximize those values, e.g., heron rookeries, bald eagles perch trees and nesting
- The BPR stormwater management is part of the NPDES permit overseen by the Boise Public Works Department for the City of Boise.
- Storm water from outside park boundaries is treated in the parks when feasible.
- Bacteria monitoring for recreational water quality standards are monitored at five sites between Eckert and Eagle Roads

Hydrology, Hydraulics and Stormwater

(River Bank Stabilization, Treatments and Hydrology, and Water Quality in 1999 Plan)

River Bank Stabilization

- Safety of recreationists is considered in choosing materials used for projects in the river or on riverbanks.
- City crews now have experience and proficiency in bioengineering restoration techniques, such as root wads and willow bundles. Bioengineering applications are the highest priority.

Water Quality

- BPR will continue with no mow zones, integrated pest management and the mutt mitt programs as ways to reduce the amount of runoff and pollutants flowing into the river.
- Pollution sources are noted by parks personnel and reported to the appropriate agency.
- Park stormwater operation and maintenance plans are reviewed and updated regularly. Stormwater facilities are inspected and maintained regularly. Records of inspection and maintenance are maintained for almost 400 stormwater facilities in the parks.
- The Spill Response Plan for hazardous materials is maintained and updated as necessary.
- BPR integrates storm water management into designs for future parks and in redesign of existing parks. Stormwater is retained on site.

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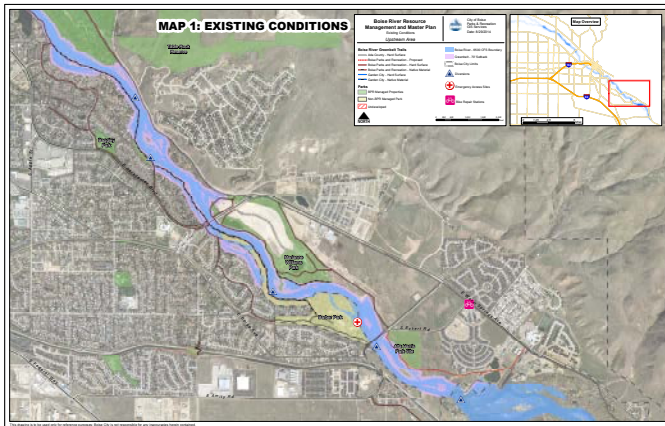
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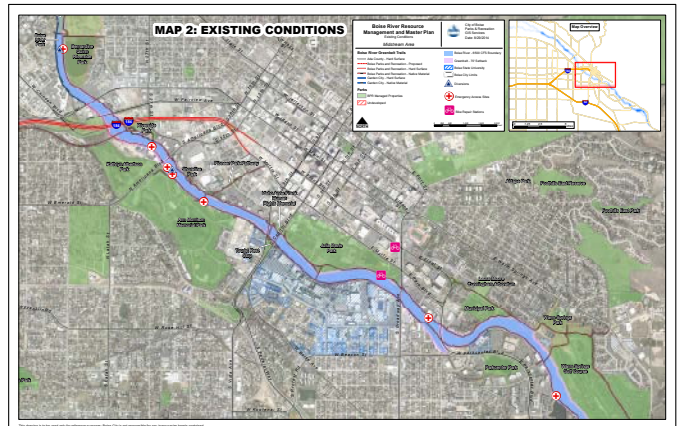
Appendix

Appendix A: River Plan Maps

Existing Conditions ~ Upstream



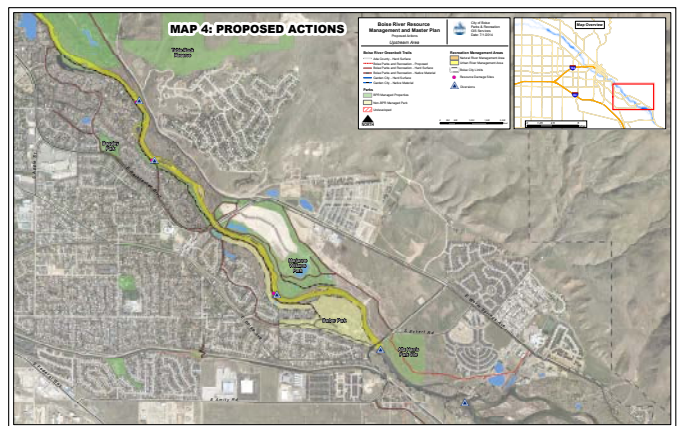
Existing Conditions ~ Midstream



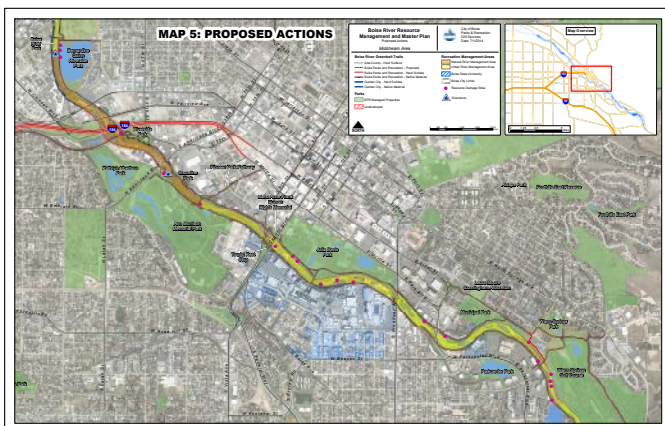
Existing Conditions ~ Downstream



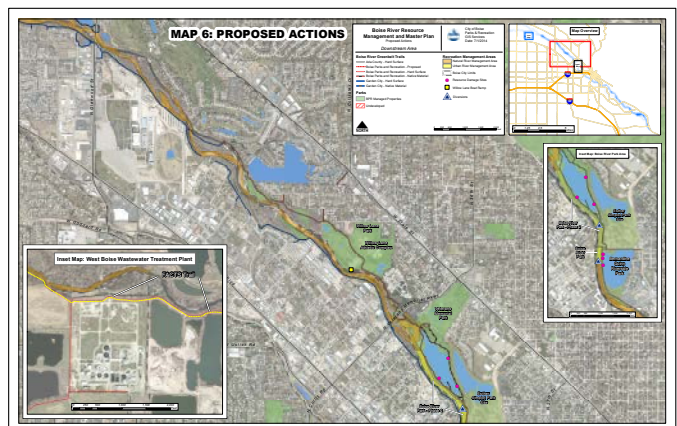
Proposed Actions ~ Upstream



Proposed Actions ~ Midstream



Proposed Actions ~ Downstream



For electronic viewing : click
to enlarge or download map

For printed viewing :
see enclosed maps

Appendix B: List of organizations and documents mentioned in the Plan**Websites and web pages mentioned in this Plan.**

Website, listed alphabetically	URL as of July 15, 2014
All About Rivers	http://stream-flow.allaboutrivers.com/Idaho/river_flow-sID.html
Audubon Society Important Bird Areas Program	web4.audubon.org/bird/iba/index.html
Boise Environmental Education	bee.cityofboise.org/bee
Boise Parks & Recreation.....	parks.cityofboise.org
Boise Parks & Recreation: Floating the Boise River ..	parks.cityofboise.org/parks-locations/floating-the-boise-river/
Boise Parks & Recreation: Greenbelt	parks.cityofboise.org/parks-locations/parks/Greenbelt/
Boise Parks & Recreation: Greenbelt E-Newsletter ..	parks.cityofboise.org/about-us/Greenbelt-news/
Boise Parks & Recreation: Greenbelt Map	parks.cityofboise.org/media/228316/14-0507-greenbelt-map.pdf
Boise Parks & Recreation: Nature Guide	parks.cityofboise.org/nature-guide
for Boise Parks.....	
Boise River Enhancement Network.....	boiseriverenhancement.net
Boise River Important Bird Area Profile	netapp.audubon.org/IBA/Site/539
Boise River Mobile Tours.....	boiserivermobiletour.info
Boise River Resource Management and	http://parks.cityofboise.org/about-us/boise-river-resource-management-and-master-plan/
Master Plan	
Boise River Trails Plan	adaweb.net/ParksWaterways/OpenSpaceandTrails.aspx
Foundation for Ada Canyon Trail s Systems	factsidaho.org
Idaho Fish and Game: Fish Stocking	http://fishandgame.idaho.gov/public/fish/?getPage=230
Idaho Rivers United.....	idahorivers.org/
National Weather Service	http://stream-flow.allaboutrivers.com/Idaho/river_flow-sID.html
Sagebrush Steppe Master Naturalist Chapter.....	fishandgame.idaho.gov/sites/Wildlife/IDMasterNaturalist/Boise/
Ted Trueblood Chapter of Trout Unlimited	tedtruebloodtu.org
U.S. Geologic Survey	http://waterdata.usgs.gov/usa/nwis/uv%3Fsite_no=13206000%3E

Documents linked in this Plan

Document, listed alphabetically	URL as of July 15, 2014
Boise Greenbelt Survey: Polishing a	http://parks.cityofboise.org/media/947246/Urban-Research_May-2014_final.pdf
Community Gem	
IPM Chemical Pest Management Guidelines	http://parks.cityofboise.org/media/4056/24860_IntegratedPestManagement.pdf
Stewardship Plan for the Riparian Corridor from	parks.cityofboise.org/media/4259/Boise_Parks_Stewardship_Plan.pdf
Barber Park to Glenwood Bridge	
U.S. Fish & Wildlife Service: Migratory Bird	http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtintro.html
Treaty Act	

Appendix C: Memorandum of Agreement for wetlands mitigation

MEMORANDUM OF AGREEMENT
FOR
WETLANDS MITIGATION BANKING

THIS MEMORANDUM OF AGREEMENT is hereby entered into this _____ day of _____, 2014, by and between the city of Boise City (“City”), an Idaho municipal corporation, and The Wetlands Group, LLC (“The Wetlands Group”), an Idaho limited liability company established to serve as a wetlands bank provider for mitigation banking as regulated by the U.S. Army Corps of Engineers, to provide for the designation of certain City-managed park and open space properties as prospective mitigation receiving sites via The Wetlands Group’s prospectus and to provide for general terms of agreement for the licensing, planning, construction, and management of wetlands bank wetlands on specified park and open space properties.

WHEREAS, the City developed and adopted the Boise River Riparian Study that identifies certain City park and open properties where construction of functioning wetlands, riparian areas, trout spawning habitat, and flood proofing features are appropriate and desirable; and

WHEREAS, the City wishes to provide for protection, enhancement, and long-term management of wetlands and related riverine functions for purposes of water quality, flood proofing, trout spawning, habitat functions, and passive recreation on lands and waters located within its jurisdiction; and

WHEREAS, The Wetlands Group wishes to provide for inclusion of identified City properties in a wetlands bank Provider Prospectus for consideration by the U.S. Army Corps of Engineers for the purpose of establishing a mitigation bank; and

WHEREAS, The Wetlands Group wishes to enter into agreements with the City for certain park properties managed by the City for purposes of conducting mitigation banking activities including financing, planning, permitting, construction, and monitoring of wetlands; and

WHEREAS, The Wetlands Group and the City desire to provide opportunities for mitigation banking, and to ensure compliance with all applicable federal requirements.

NOW, THEREFORE, to achieve the foregoing, the City and The Wetland Group hereby agree as follows:

- 1) Each party shall assign staff to provide for administration, supervision, and coordination of activities and technical expertise as necessary to meet its respective responsibilities and to complete the terms of this agreement as follows:

For the City:

Superintendent
of Parks: Thomas Governale
Address: 1104 Royal Blvd.
Boise, Idaho 83706
Phone: (208) 608-7624
Email: tgovernale@cityofboise.org

For The Wetlands Group:

Principal: Gary Howard
Address: 100 S. Star Rd., Suite 112
Star, Idaho 83669
Phone: (208) 375-5373
Email: ghoward@thewetlandsgroup.com

- 2) The City shall authorized and reserve portions of the following parklands for potential mitigation banking activities as part of The Wetlands Group’s Prospectus application to the U.S. Army Corps of Engineers:
- a. Esther Simplot Park
 - b. Ann Morrision Park
 - c. Alta Harris Creek
 - d. Warm Springs Golf Course Area
 - e. Julia Davis Park Cottonwood Creek flume
 - f. Expand Willow Lane Athletic Complex Wetlands Area

- 3) The parties recognize and acknowledge, as a express limitation upon the parklands specified in section 2, above, that only parklands owned by the City may be made available for wetlands banking.
- 4) The City may provide access to these sites to The Wetlands Group for future potential mitigation banking activities, subject to the successful negotiation of individual site licenses.
- 5) Until the negotiation of individual site licenses, this Memorandum of Agreement does not authorize exclusive use of parkland sites for mitigation banking activities.
- 6) Except as specifically excepted herein, this Memorandum of Agreement terminates and supersedes all prior agreements between the parties. **EXCEPTION:** The previous agreement between the parties, which is attached as Exhibit A and incorporated by reference, shall remain in full force and effect as to those wetlands banking projects that were undertaken under that previous agreement.

BOISE CITY:

Dated this _____ day of _____, 2014.

By: _____
David H. Bieter, Mayor

THE WETLANDS GROUP, LLC:

Dated this _____ day of _____, 2014.

By: _____
Gary Howard, Principal

Attest: _____
Jade Riley, *Ex Officio* City Clerk

Appendix D: Boise City Code 11-03-04 and 11-05-06

Boise City Code guides land use decisions that affect river corridor. Boise City Code 11-03-04, Boise River System Application, explains requirements for a permit for activities within the Greenbelt setback from the river. Boise City Code 11-05-06, Boise River System Overlay Districts, shows which lands are to be protected to what level and which are less restricted. A floodplain review is required for changes to land in the mapped flood hazard area, Boise City Code 11-03-04.

<http://cityclerk.cityofboise.org/city-code/>

Appendix

Appendix E: Steering Committee Bike Tour

Start: Boise Parks and Recreation Office, 1104 Royal Blvd. Go toward the Greenbelt Path across the parking lot between the administration building and the Greenbelt Path. Head upstream.

Stop 1: Old Timers' Shelter – Riparian restoration and rail fence. This was a boater take-out and eroding river access point. Request for a 10 foot access for larger boats because there is road access.

Stop 2: Kinnetics Building, first building on right after the vacant lot. Designated Greenbelt Path user parking spaces a condition of development. Where are they?

Stop 3: BSU – across from amphitheater. BSU proposes seating in a bulb-out area. Note the denuded riparian area. Harden, revegetate?

Stop 4: Broadway Bridge – The bridge will be replaced starting in 2014. There are opportunities for safer underpasses, emergency and recreational access, better bike/pedestrian routes across the bridge.

Stop 5: Wooden bridge over Loggers' Creek near end of Leadville Street. Don't stop, feel the bumps as you ride across the bridge. Bridge is structurally sound, but the decking needs to be replaced – when there is \$.

Stop 6: Approaching the West Parkcenter Bridge. This section of the Greenbelt Path has been designed to flood. It is inundated at about 4,000 cfs.

Stop 7: Upstream of West Parkcenter Bridge – This area is heavily used for parking for Greenbelt Path access. This is one of the last, if not the last, pieces of open space that could be acquired for public access along the river.

Stop 8: Denuded and compacted riparian area downstream of the orange footbridge. This area is heavily used by people playing with their dogs in the water. Revegetate, harden, leave as is?

Stop 9: River Quarry emergency access and tuber port. Note eroding river access and the seasonal toilet.

Stop 10: Upstream of River Quarry – revegetated river bank and river barb to deflect water from what was an eroded bank created by use as a river access site.

Stop 11: Bethine Church River Trail – park your bike and walk across the wooden bridge.

- On the right - Heron Cove stream restoration – bank revegetation, spawning gravel
- Main trail has become very wide and there is ribboning of the path. Many river access places.
- Back at your bike, try to find the bike path as it turns left and is on streets to the far end of the natural path.

Stop 12: Head back toward the orange footbridge. Stop near Albertson Foundation and look across river toward Warm Springs Golf Course. Note eroded bank and beach. Heavy use – swimming, jumping off concrete structure in summer, fisherman access, dog play year round. Eagle perch tree on river left. Restore this bank, harden?

Stop 13: Orange footbridge (Baybrook Bridge) – Site of summer congestion, bridge jumping, floater conflicts.

Stop 14: Behind Marden Water Purification Plant – Rope swing and eroded banks. Noxious weeds – lots of Rush Skeleton Weed. Natural path, not designated as part of Greenbelt Path.

Stop 15: Back on main Greenbelt Path, head toward Warm Springs Park. Restroom with flower mosaics is open year round and heavily used. Graffiti inside.

Stop 16: Constructed wetlands in Warm Springs Park (undeveloped). The wetland cleans canal water before it re-enters the nearby irrigation laterals.

Stop 17: Head toward downtown on the main path. The Marden Street parking area is on the right just as you curve around to the United Water Purification Plant entrance.

Stop 18: Municipal Park dual path. Should the dirt path be improved, left as is?

Stop 19: Across from Kimberly One townhomes. The Tozer Overlook. The sand beach has eroded. The bench is way above ground level. What to do with this area?

Stop 20: Downstream of the West Parkcenter Bridge across from the Clearwater apartments. This is designated as emergency access by the BFD. The beach has eroded. What to do with this area?

Stop 21: East end of Julia Davis Park – daylight Cottonwood Creek? The creek enters the river from a stormwater outfall. Could a daylighted creek include wetlands to treat stormwater?

Stop 22: Downstream of the zoo, Julia Davis Creek has been reconstructed and connected to the river.

Stop 23: Downstream of Julia Davis Creek - two river accesses. Upstream access is eroding, but has railroad ties that provide some bank stability. Just downstream is another eroding access point. Harden, revegetate?

Stop 24: Capitol Street Bridge underpass – graffiti

Stop 25: Ninth St. Bridge – mirrors, bridge jumping, congestion; overlook on downstream side

Stop 26: Approaching Ann Morrison footbridge – Steve Pierce Overlook; no mow zone; sight lines

Stop 27: Ann Morrison footbridge – cross river to start point or continue downstream

Stop 27a: Ann Morrison Park, river access up and downstream of bridge. Upstream beach is eroding. Emergency access. Heavily used by floaters. Downstream ramp is too narrow for boats.

Stop 28: Shoreline Park – Volunteer Greenbelt Patrol headquarters. Dual path. Designated Greenbelt Path parking.

Stop 29: Fire fighters’ Memorial and Fire Training Center. Greenbelt Path parking, restroom, dual path, bike rack. Problem area on unpaved path in trees – drinking, flashers.

Stop 30: Trestle bridge – jumping. New path will be built on river left.

Stop 31: Shiloh Inn – path is concrete. BPR using concrete when path is replaced.

Stop 32: Quinn’s Pond – Accessible dock. Area of congestion, naughty behavior.

Stop 33: BRRP – Congestion at beach area; Pleasanton Street access; Idaho River sports; separate paths for kayakers/boaters and Greenbelt Path users; 36th St. bridge signage and access to Garden City, which does not have an ordinance addressing alcohol use on and near the river.

Stop 34: Esther Simplot Park site

Stop 35: Farmers Union Canal Co. unsafe diversion; next stage of BRRP

Stop 36: Lander St. treatment plant – path being upgraded to the west as far as the \$\$ will go

Stop 37: Bumpy wooden bridge – complaints from Greenbelt Path users; will replace when \$\$ available

Stop 38: Willow Lane – proposed boat ramp; wetlands mitigation site

Stop 39: Veterans’ Memorial park – ponds have steep eroding banks; naughty behavior; new path and bank repair; note signs on Greenbelt Path and bridge.

End of tour – return to start.

Appendix F: Barber Park Floater Season Visitation

Barber Park Floater Season Visitation												
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Shuttle Riders	6,741	10,919	12,973	13,669	14,388	19,533	19,413	16,103	17,363	18,372	22,673	26,813
Rode Shuttle To Barber Park	1,654	2,180	2,601	2,734	2,982	3,907	3,829	3,183	3,473	3,674	4,535	5,363
Walked In From Offsite Parking	8,271	10,902	10,896	7,833	7,533	9,353	10,879	8,620	8,746	8,301	8,378	10,665
Dropped Off	16,542	21,804	21,791	15,666	15,065	18,705	21,758	17,241	17,493	16,604	16,758	21,331
People per Parked Cars	52,074	67,228	72,638	52,221	50,167	62,288	72,454	57,412	58,252	55,291	55,804	71,033
Total Visitation	85,282	113,033	120,899	92,123	90,135	113,786	128,333	102,559	105,327	102,242	108,148	135,205

Appendix

Appendix G: Public comments received during the review of the Plan, both online and from open houses.

Comments from Public Open House

June 27, 5 – 7 p.m.

Public Safety

- Lighting on Greenbelt, especially in winter and early spring – would be important to keep it as environmentally friendly (less light pollution) – but important for safety as I am a young female and use the Greenbelt to commute for work and errands.
 - Along with alcohol policy, a smoking policy
 - Use of “green” concrete on pathway – allows water to run through it
- The Greenbelt is no longer safe on the weekends. I will not ride my bike, it’s too congested. Teenagers on bikes vs. toddler walking with family.
- Increased education on the Greenbelt use. Help soften the confluence of recreation use and transportation use.
 - Maybe post a list of rules at every entry point to the Greenbelt.
 - Maybe create volunteer-run ed days.
- Please allow bicycles on the walkways in Maryanne Williams Park. The way it is doesn’t make sense and will keep the public out.
 - Allow beer and wine in some areas along the river.

Navigation

- As someone who uses the Greenbelt increasingly more for transportation, I can’t help but think back to my first couple times using the Greenbelt, it is unclear where to get off the Greenbelt to get to X or Y street. A very simple wayfinding system could be useful.

Recreation

- We need a very large beach area right downtown. People would love it!
- Establish a 10’ river access at the upper end of Ann Morrison where the present turn around is in order to take out larger float crafts.
 - Access for larger rafts is a major problem. If one doesn’t access the river at Barber Park, it is hard to get to the river – take out is even worse. Some of the access from the river at Ann Morrison is fenced to protect riparian plants – I agree with this – but how about a 10’ sacrifice area to take out boats at the upper end of Ann Morrison Park like in the past.
- Improve public access points.
- Better access to river
- Mobile app for access (Footpath – free app)

Wildlife, Fisheries and Riparian Zone

- Take Foothills levy money and purchase property along the Boise River to protect from development especially east of Barber Pool where known bald eagle pairs are still remaining, but probably not much longer. Building should be north of Warm Springs Road.
- As the city now goes as far as Riverland East Neighborhood Association, clearly updates of ’99 plan AND MAPPING – should treat Barber Valley with exactly same recommendations language and include area from Eckert Bridge – the Land Trust funded trout stream, Alta Harris Park into Barber Pool to Beaver Dick’s crossing and upcoming buildings near 21 bridge.
- Non-native plants, particularly when invasive. Non-chemical treatment strategies.
- River health and the surrounding area should always trump recreation!
 - Once it’s gone, it’s gone. Don’t give out to small special interest groups – the future enjoyers will thank you.
- Regenerate riparian zones. Cottonwoods are not regenerating. They need more water.
- Cottonwood regeneration
- Leave the trees in
- Improve fishing in town with better regulations.

River Bank Stabilization, Treatment and Hydrology

- Rebuild river banks to stop the erosion and improve fish habitat.
- Comprehensive flood protection study to include the river meander channel – should this recommendation be deleted?

Water Quality

- Opportunities for LID treatment in riparian zone before discharge into river? Option in selected locations?

Mitigation

- 6 mitigation sites listed – additions should be upriver from Maryanne Williams Park as well.
 - Any chance Gregerson property can become a park?!

Interpretation

- Develop an interpretive program that would include instructional apps on riparian ecology, birds, plants, animals, insects that would appeal to people, especially youth.
- An instructional app and signs that people of all ages could use to access sounds and pictures and video of the ecosystem at their location, e.g., bird calls that they may hear at that location on that day. Plant pictures for that season/month. Include invertebrates.

- Boise Parks and Rec interpretive program MUST include subject of recent Quarry View Park gathering of indigenous groups, i.e., Shoshone Paiutes, Nez Perce, Utes, Shoshone gathered in “Peace Valley” on southwest facing hillsides (as documented in early 1800s by French, counting captives) and accessed sturgeon, etc., grasses in Barber Valley.

Cooperation

- Most everything that happens up or down stream affects the City of Boise portion of the river. We need to work with USFS, BOR, Garden City, Eagle, Star, Nampa, Caldwell, etc., to ensure the entire river is healthy.

Economics

- It is easy to say the river is priceless, but an economic analysis of its true \$ value to the Treasure Valley could generate more public support for protecting the river.

Comments from Public Open House

May 7, 2014

General Comments

- Learned about the open house from a sign on the Greenbelt. Moved here in January 2014 – learning more about this terrific area.
- Doing a good job and headed in the right direction. Keep moving ahead as you are doing.

Boating

- Remove steel railroad tracks from diversion dam adjacent to unpaved trail (B. Church Trail). Danger to rafters!
- Develop a take-out for bigger boats (rafts) somewhere in the Ann Morrison Park area. It is a long, hard drag to get a bigger raft from the present take-out to a vehicle. I the past the turn-around at the entrance to Ann Morrison was available, but a fence and safety issues prevents this now. A take-out for larger rafts should be developed in a safe location somewhere.

Dog Off-Leash Area

- Consider designating unpaved portion of trail (S of SE 2.6 marker) as off-leash section with provision that pets be owner controlled using voice commands or electronic collar.

Comments Submitted Online or by Email

- Thank you for an outstanding, comprehensive job. All the recommendations seem well-thought out and I support them. There are some patches of puncture vine along the Greenbelt that need to be controlled as well, so please make sure that noxious weed management is included.
- Overall impressed with the plan, would like to see more emphasis on preservation, especially within floodplain of LBR.
- As a frequent walker on the greenbelt I wanted to leave a comment stating that it is very important to me that we manage the Boise River with wildlife conservation in

mind. Thank you for all your time and work keeping the river beautiful and safe, for people and wildlife alike.

Last week I read the 2014 Draft Plan and have a couple of comments:

- The link to provide comments on the website for the plan was not working as of last week. Today, I can access the form and put in my contact information but it will still not accept comments. Therefore, I am doing so here.
- In general, I agree with the overall plan as well as with the specific recommendations.
- On page 3 of the Recreation section, one of the recommendations is to “Coordinate with ACHD and homeowners’ associations to delineate the bicycle path on the streets between both ends of the Bethine Church River Trail.” I am the President of the Board of Directors of The Pines at River Run Homeowners Association. Our HOA owns the property on the west side of South Riverstone Lane on the block immediately south of the Cottonwoods Apartments. As the Draft Plan implies, way finding for greenbelt users in this area has been problematic. This requests that our HOA be directly involved in any discussions relating to “delineate the bicycle path” at this location particularly if our property is to be used for signage or other infrastructure improvements. Please also note our property is not under the control of the River Run HOA. My contact information is as follows:

Brian M. Shea

President, Board of Directors

c/o The Pines at River Run Homeowners Association

802 East Riverpark Lane

Boise, ID 83706

208-322-8756 (home)

208-334-8828 (work)

brianshea@cableone.net

- Also, on page 3 of the Recreation section, another of the recommendations is to “Mark the entrance to the unpaved path with bollards or other obstacles to serve as a physical reminder that bicycles are prohibited.” Again, this is a recommendation that I strongly support as I am a frequent (multiple times/week) user of the Bethine Church River Trail and often see cyclists... sometimes in defiance of the current signage and sometimes naively. The signs installed several years ago have had a major positive impact at mitigating the problem but physical obstacles would be another big help.

Thank you for this opportunity to comment.

Appendix

Appendix G: Public comments received during the review of the Plan, both online and from open houses.

May 23, 2014

Doug Holloway, Director
Department of Parks & Recreation
1104 Royal Blvd
Boise ID 83706

RE: Boise River Management Plan Update Draft
Recommendations

Mr. Holloway,

Thank you for this opportunity to comment on the Update to the Boise River Management Plan. Boise City Canal Company would like to offer the following comments:

The Company owns some of the oldest water rights from the River and strives to provide our shareholders with affordable and reliable delivery of water through our canal system. The Board supports the many references regarding coordination between the Valley's diverse river users to find comprehensive solutions to the challenges associated with the Boise River.

Hydrology, Hydraulics and Stormwater

a. Hydrology and Hydraulics

1. The Company has been investigating an upgrade to its diversion structure and offers this as a possible opportunity to implement this recommendation.
3. Water delivery organizations should be explicitly included in these discussions.

b. Stormwater

1. Boise City Canal Company receives storm water from a number of streets as well as from the Warm Springs Hot Water District. The Company has been approached about the disposal of storm water and ground water from new construction projects in the Downtown area. Our system already delivers water to several City of Boise properties. Improvement or enhancement of the Company's infrastructure may allow for opportunities to implement this recommendation.

Natural Resources

a. Cottonwood Forest and Riparian Zone

5. Please include the Idaho Department of Water Resources in this recommendation. Although the Federal Government regulates the flows of water from its dams, the State's laws and policies are paramount in creating opportunities to use existing water rights in new ways.

b. River Snags and Debris

1. Snags and debris can impact the course of the river and impact the ability of delivery organizations to divert their water rights and serve their shareholders. Delivery organizations should be included in these types of discussions.

d. Fisheries Habitat

2. The Company may be able to assist by making shares available for use in side channels or other wildlife and fisheries habitat projects.
5. The ability to protect the Company's water rights will be crucial to its participation.

Public Outreach and Education

The Valley's canal companies historically and currently play an important role in the settlement and continued economic health of the Treasure Valley. The Board encourages P&R to explicitly note these contributions in this section and to include the companies and districts in its education projects.

Public Safety

a. Emergency Access Points

The Company supports access to the River by safety and law enforcement officials. It should be made clear to the public (signs, public information efforts) that headgates are off-limits to everyone other than the owner even if headgates are incorporated into river access facilities.

e. Design of Bridges

The Board supports adding language that bridges should not impede the flow of water to diversion structures.

Recreation

b. River Access

Please see comments above under Public Safety

c. Boating

1. River recreation opportunities that include partnerships with delivery organizations should be considered anywhere on the river, not just in the immediate area of the BRRP.
7. The Company welcomes opportunities to create a safer, more efficient and multi-use diversion structure for its facilities.

Sincerely,

Alan Winkle, President
Boise City Canal Company



Parks & Recreation

Boise Parks & Recreation
Administration Office
1104 Royal Blvd.
Boise ID 83706

parks.cityofboise.org