

Summary of River Bluffs Education Plan

The River Bluffs Open Space Education Plan defines the scope and breadth of educational efforts to take place concerning River Bluffs Open Space. These efforts include both personal and non-personal educational media and programming, pre-visit education, and on-site education with the intent of providing a high quality visitor experience on-site and encourage connections between the visitors and the land.

A “big idea” or overarching theme to provide this visitor experience has emerged from this planning process, and media and programming developed for the site will reference this idea:

Although small, River Bluffs Open Space is a significant Open Space because of the myriad of connections it provides to our communities and visitors. The Poudre River, and Poudre River Trail connect each community they flow through, allowing for unencumbered access for visitation, recreation and commuting. This significant regional trail provides connections between municipalities partnering to ensure its success. People and wildlife alike are inherently connected to the site because of the river. Due to the cultural and agricultural resources visitors here will feel connected to their past, and to the agricultural heritage of the county. These connections culminate to provide a high quality visitor experience, and a strong sense of place on this conserved landscape.

Significant Findings

Based on a wide range of data compiled from statewide and local sources the anticipated audience for educational materials at River Bluffs Open Space will likely be local middle aged to older hikers and bikers who will access and use the site multiple times per season. Personal programming detailing the wildlife and cultural resources of the site will likely be highly popular.

Non-personal interpretive materials will be aimed at the hiking audience, and due to the inherent transient nature of anticipated recreation on the site (it is a small site that provides access to other protected areas via the Poudre River Trail) messages on non-personal will be brief, and forgo calls to action (4th level messages).

Based on research done in this plan interpretive themes for this site will focus on the connections inherently provided by the river, the cultural resources of the bluff area, the agricultural heritage of the area and riparian ecology and wildlife.

River Bluffs Open Space will serve as a pilot area for a Larimer County Open Space “Wild Zone.” Wild Zones are places where high quality unstructured outdoor experiences can be offered to youth and families, without the normal restrictions for resource protection in other parts of the property to allow for off trail use, digging, building forts and the like.

Final Recommendations

The products outlined in this plan will be phased in over the next 3-5 years.

Non-personal products outlined in this plan include a trail head kiosk featuring a series of interpretive panels to be changed out seasonally, two wayside interpretive panels covering the cultural uses of the property and agriculture, a wild zone, and a retrofit of the bridge detailing the history of the property.

The cost of the non-personal interpretive products outlined in this plan is estimated at \$18, 570.

Section 1: Context and Need for Plan

1.1 Brief Description of River Bluffs Open Space

River Bluffs Open Space (RBOS) is a 163 acre open space located along the Poudre River with an ancient bluff system, riparian corridor, and irrigated agriculture located near the Town of Windsor. The regional Poudre River Trail will continue through this property, and then north to Bellvue. RBOS is an continuation of protected areas providing access to the Poudre River and itself provides significant visual aesthetics and wildlife habitat along with excellent opportunities for cultural and natural resource education.

1.2 Vision and Values

River Bluffs was originally preserved for its agricultural and natural resource values, and also as a location for a regional trailhead for the Poudre River Trail. Although a portion of the section of the Poudre River that flows through the property has been channelized, the area has not been mined for gravel as is the case in many other places along the along the lower or “working” portion of its flow through eastern Larimer County. The riparian corridor provides nesting sites for raptors and song birds and is a movement corridor for wildlife.

The bluff portion of the property holds significant cultural values representing the ancient woodland cultures of 5,000 years ago.

1.3 Purpose of Plan

The purpose of this education plan is to establish an overarching theme for the interpretation of River Bluffs Open Space and identify the educational opportunities that will be pursued on-site. Preliminary themes for personal and non-personal interpretive materials will be developed along with timelines and budgets for non-personal interpretive materials. Audiences for interpretive products will be identified and analyzed in order to maintain the most effective interpretive experience with limited resources.

This plan will serve as a guide for the continued use of education and interpretation on the Open Space for the next three to five years.

1.4 Planning considerations

This education plan follows the guiding philosophy established by the River Bluffs Open Space Resource Management and Implementation Plan (April, 2010). The management plan has laid out a set of nested management targets for the property that include the Western Bluff area, the Riparian Areas, Agricultural Fields, the Poudre River Trail and Trailhead, and Education.

Furthermore, based on the Open Lands Master Plan, education and interpretation will be used to meet the objectives of protecting and enhancing the natural and agricultural resources on the site, providing safe and enjoyable recreation opportunities, and connecting the public to the resource through the site’s rich history and natural values.

Based on the planning constraints identified within the River Bluffs Open Space Resource Management and Implementation Plan and these management targets, several planning considerations emerge for this plan.

- Active use of the Boxelder Irrigation Ditch – The lessee who farms the property for alfalfa and hay also grazes horses from a breeding operation during certain times of the year and will need to maintain access to the fields and the irrigation systems along the ditch. Non-personal interpretive materials planned for the trail will be placed so that this access is maintained.
- Consistency with existing interpretive elements along the Poudre River Trail – Currently along the 37 miles of the Poudre River Trail, non-personal interpretive materials have been installed by various agencies, as well as the Poudre River Heritage Alliance and Poudre River Trail Corridor Incorporated. Some of these materials are not entirely consistent with non-personal interpretive materials that exist on other Open Space properties (large frames around

panels in the style of National Park Service signs). Waysides on River Bluffs Open Space will more closely resemble the style of Poudre River Trail Corridor Inc's signs down trail, which are more consistent with the style for interpretive panels elsewhere in the Larimer County system.

- Efforts to create an interpretive plan for the entire Poudre River Heritage Corridor are underway. The plan for RBOS will aim to complement those efforts and fill the specific niches for education and outreach on the Larimer County portions of the trail.

Section 2: Inventory and Analysis

This section contains an inventory and analysis of the significant natural and cultural resources at River Bluffs Open Space (RBOS) that are likely to be interpreted at the site. Management issues, existing staff and facilities, and audience segments are also included herein.

2.1 Natural, Cultural, and Historic Resources

Geologic and Bluff Area:

RBOS, while predominantly flat, still provides a glimpse of a landscape that once dominated the river corridor of the lower Cache la Poudre River. The bluff along the western edge of the property is now an anachronism of this landscape, whereas in the past these kinds of open bluffs would have been more widespread. Geologic formations on site are relatively young compared to other open space areas further west. On the eastern portion of the property, formations consist largely of dark-gray sandy to gravelly alluvium (river deposits). On the western side of the river, the primary formation is Pierre Shale from the Upper Cretaceous. This formation is divided into the Upper Transitional Member (friable sandstones, soft shaly sandstones), and the Upper Shale Member (gray concretionary silty shale) that makes up the Bluff.

Riparian Corridor:

Approximately ½ mile of the Cache la Poudre River flows through RBOS. Channelization for the construction of Hwy 392 occurred on this section of river in the 1960s or 1970s, which has isolated the floodplain from the river and changed the ecology of the riparian area. Much of the entire Cache la Poudre River has undergone similar changes to serve the needs of communities along the Front Range. Prior to these changes, periodic flooding during the spring reworked the river channel and created diversity throughout the habitats along the river. Species native to the area were highly adapted to these seasonal changes.

An oxbow which now contains wetlands exists along the southern portion of the river as it flows through RBOS. Fossil Creek flows into the river from the west and a small pond exists on the site as well.

Agricultural Fields:

There are two irrigated agricultural fields at RBOS: one on the east side of the river and the other on the west. The western field is used for hay production and horse grazing, and has Boxelder Ditch water rights associated with it. A flood irrigation system is used on the western field to move water. The eastern field has Fossil Creek Reservoir and New Cache la Poudre Irrigation Company water rights associated with it. A series of laterals are used to flood irrigate the eastern field. Eight shares of New Cache La Poudre Irrigation Company water are available during spring and early summer for the eastern field, in the western field one right of Fossil Creek assessment is available.

Vegetation:

Vegetation on RBOS comprises 3 distinct areas:

Western Bluffs: Predominantly native flora of common upland prairie grassland and forb species (RBOS Mgmt Plan). While the geology of the area may support the rare and endangered Bell's Twinpod, none have been found on RBOS.

Riparian Areas: The riparian area on RBOS is a ½ mile corridor of the Cache la Poudre River. Dominant native riparian vegetation includes sandbar willow, plains cottonwood, peach-leaf willow, prairie cordgrass, blue vervain, switch grass, salt grass and boxelder. (RBOS Mgmt Plan)

Foothills/Grasslands Complex: Flatter portions of the property not included in the agricultural plantings along the toe of the bluff and surrounding areas fall within the foothills/grassland complex.

Wildlife Habitat:

Due to its proximity to water and available cover, RBOS provides habitat for a variety of species including mule and white-tailed deer, coyotes, foxes, raccoons and skunks (RBOS mgmt plan). Many varieties of water fowl, raptors and songbirds are also supported by the riparian area and surrounding agricultural fields and bluffs. There are known red-tailed hawk and great-horned owl nests on the property. The area is classified by the Colorado Division of Wildlife as winter duck range. There is a

bald eagle nest located just north of the property on a conservation easement, which is visible from the trailhead area during the early spring, fall and winter.

Cultural Resources:

Due to its location at the confluence of the Cache la Poudre River and Fossil Creek, RBOS has a long history of human interaction with the landscape. According to a preliminary archeological survey conducted by Colorado State University, there are two distinct cultural sites on the property: the Harvester Site, so named for the assemblage of flakes found within harvester ant mounds on site, and the Weinmeister site, named for an amateur archeologist who served as a farm hand and lived on the property from the 1960s to the 1980s who collected many artifacts from the area when it was private land.

Just south of River Bluffs there is a well known Late Archaic bison bone bed known as the Kaplan-Hoover site. This site was excavated by CSU in the 1990s and 2000s (Todd et al. 2001) by Dr. Larry Todd. While no direct link can be found between River Bluffs and Kaplan Hoover, Archaic age artifacts have been found on River Bluffs Open Space. The proximity of the sites would suggest that “this area was incredibly important to prehistoric people for living as well as hunting and gathering activities” (LaBelle, Andersen RBOS Arch Survey, 2010)

The majority of the evidence of human involvement with the Harvester site is from the Early Ceramic, or Plains Woodlands traditions, which dates from 150 AD to 1500 AD. Artifacts found on the property from this period include bone awls, cord marked pottery shards, bird bone beads, ground stones, atlatl weights, hearths, projectile points, end scrapers and other debris associated with the making of tools. The number of ant hills at this site that contained artifacts and the sheer number of artifacts were both significant, compared to other similar sites. This would seem to indicate that this was a main activity area including habitation and work sites.

Historic agricultural use of this property is also evident in the discovery of a truck frame from the 1930s, along with the foundation of a homesteader’s house, and an old water diversion structure.

So What?

River Bluffs Open Space provides a wide variety of cultural and natural resources tied together by the access to the critical resource of water. People and animals are drawn to this area due to the river, and visitors today will feel that same pull. The juxtaposition of the dry bluffs and wet riparian area will provide opportunities to challenge visitors to consider the drastic differences in microhabitats over small distances. These resources create unique opportunities within the Larimer County Natural Resources system for interpretation and connecting the public to the resource.

2.2 Recreational Resources

The recreational resources of RBOS can be thought of as both on-site and regional, due to the Poudre River Trail. RBOS will serve as a major hub of the Poudre River Trail, providing a trailhead area, parking lot, restroom facilities, picnic areas, and bicycle amenities. Access points to the river will exist in two distinct areas, allowing for fishing and possibly canoeing during appropriate times of the year. The Poudre River Trail is currently $\frac{3}{4}$ complete, with 20 miles of paved commuter trail south of RBOS and another 15 north. The corresponding gap directly north of RBOS will be filled within the next five to seven years.

So What?

The Poudre River Trail is a significant regional trail that has captivated the public’s attention in Northern Colorado for decades. Its completion will signify a major accomplishment and serve as an example of different public agencies working across jurisdictional boundaries for the benefit of the citizens they serve through mutually beneficial partnerships, cost sharing, and efficiencies.

2.3 Anticipated Management Concerns

The following management concerns have been identified at RBOS because of its proximity to local residential areas, sensitive resources, and the cultural significance of the bluff area. These issues are called out here because interpretation may have a significant mitigating impact. Other issues more appropriately addressed through zoning, trail location, or regulations are not addressed within this plan.

The majority of Open Space properties allow visitors to bring dogs provided they keep the animals on leash. This issue tends to be the largest opportunity for visitor education in most areas. The proximity of this site to neighborhoods has the potential to create a sense of entitlement among neighbors, which could exacerbate this situation. Visitor services staff patrolling the area and Volunteer Ranger Assistants on site will help to educate visitors about the benefits of keeping dogs on leash. The standard dog signs posted at the trailhead kiosk will also help to alleviate this concern.

Typically, off-trail access is not allowed on Open Space properties for the protection of natural and cultural resources. In the case of River Bluffs Open Space, the bluff area itself contains culturally sensitive materials from prehistoric cultures. This area will be fenced to limit access; interpretive signs will educate visitors and provide connections to this resource from a distance, rather than allowing direct access.

Access to the riparian area of RBOS will not be permitted during nesting seasons for raptor species found on the property. During these times, a sign regarding riparian ecology on the kiosk will help to educate visitors about the importance of this seasonal closure. Additionally, opportunities to improve the Department's typical regulatory style closure signs may arise in the future, creating a more interpretive approach to generate interest in the resource being protected.

So What?

River Bluffs is anticipated to be a popular regional trailhead for the Poudre River Trail. It is critical that visitors feel a strong sense of place for this small area so that the integrity of the natural and cultural resources can be maintained for future generations to enjoy. Interpreting these resources is an important step in the creation of a feeling of sense of place.

2.4 Volunteer Resources

The Department of Natural Resources has several volunteer groups that will support the educational efforts at RBOS. Volunteer Naturalists will plan and carry out monthly guided hikes and nature based programs. Volunteer ranger assistants will patrol the area on foot and by bicycle to educate visitors about the site and encourage compliance with various site regulations via the Authority of the Resource technique.

Volunteer naturalists receive 60 hours of training in interpretive techniques and program planning from Larimer County Natural Resources, and will develop and carry out programs at RBOS with topics and themes drawn from this plan. These programs will be marketed through local print media, the department's webpage and social media pages.

Volunteer Ranger Assistants receive 20 hours of training in making public contacts and Department regulations. These volunteers serve as the eyes and ears for the Open Lands Rangers and report back to them following patrols on visitor contacts and maintenance issues they observe. This program is a joint venture with the City of Fort Collins Natural Areas program and all volunteer management is shared between that agency and LCNR.

2.5 Audience Inventory and Analysis

This section contains a summary of national, state, regional, and local data that describes recreation and tourism trends as they relate to River Bluffs Open Space (RBOS). Following this inventory, an analysis of this information is presented as it relates to the visitor experience and interpretive planning for RBOS.

Colorado State Parks Market Assessment Study (PricewaterhouseCoopers) – 2002

In 2002, Pricewaterhouse Cooper completed a market assessment for Colorado State Parks to “assess Colorado State Parks’ position in the marketplace and to help determine the preferred future direction for Colorado State Parks” (p.1). A survey of 1,613 Colorado residents was part of this market assessment, and although the audience for this study was Colorado State Parks, the study contains quite a bit of relevant information and data for River Bluffs Open Space – particularly the data specific to the northern Front Range area, which includes Larimer County, Weld County, and Longmont. The following tables summarize these data.

Table 1. First choice for Outdoor Recreation Destinations (Bold applies to River Bluffs Open Space)		
Destination	% of respondents – North Front Range Region (n=91)	% of respondents – Colorado (n=1613)
Wilderness areas with little or no development	32%	29%
Large parks with a wide range of camping, trails, boating, and fishing	31%	27%
Forests and lakes with limited trails, camping, boating, and fishing	17%	21%
Rivers with boating and fishing	15%	16%
Community trails and community parks with ball fields and recreation centers.	6%	8%

RBOS will be one of only a handful of areas within the LCNR system to provide river access with fishing and boating (potentially). While these two uses were not highly represented in the statewide study, they will likely be a draw for high visitation at RBOS as opportunities to access the river within the system are somewhat limited. Furthermore the sites location along the Poudre River Trail will likely lead to high usage of anglers, boaters (once and if that use is promoted) and local trail users wanting “community trails.”

Table 2. Participation in Outdoor Recreation Activities in the last 12 months (2002-2003) (bold = recreation relevant to River Bluffs Open Space Experience)		
Activity	% of respondents – North Front Range Region (n=91)	% of respondents – Colorado (n=1613)
Picnicking	79	82
Trail recreation (hiking, biking)	77	74
Water recreation (swimming, sailing)	66	61
Tent camping	58	59
Fishing	45	53
Visiting historical sites	68	62
Motorized water recreation	25	29
RV/car camping	33	37
Bird/wildlife viewing	54	52
Hunting	15	20
Winter sports (skiing, snowboarding)	39	36
Ball sports (golf, baseball, tennis)	47	44

Picnicking and trail recreation, two of the experiences planned for RBOS, were the top two activities of the Front Range (and Colorado) respondents in 2002 and 2003. Visiting historical sites and wildlife viewing were also among the top 10 activities during that same time. It is likely that as these uses were rated so high in the study that they will be among the highest uses at RBOS.

Table 3. Speculated Increase in Visitation based on Proposed Feature (bold = possible River Bluffs Open Space feature)		
Feature	% of respondents – North Front Range Region (n=91)	% of respondents – Colorado (n=1613)
Smaller crowds	87	83
More backcountry parks with minimal development	69	70
Better quality facilities	67	70
More trail opportunities	70	67
Greater range of recreation opportunities	54	60
More educational programs	58	57
More advertising	58	55
Theme parks	28	35
Lodges/conference center	30	34
Golf courses	21	19

A majority of respondents voiced preference for better quality facilities (67%), more trail opportunities (70%), and more educational programs (58%) – all of which opportunities planned for RBOS. Furthermore, the public’s desires for more developed sites are well met at River Bluffs Open Space due to amenities including flush toilets, and bike pumps.

In addition, the study also identified the following:

- In the northern Front Range region (as well as in the state overall), word of mouth (friends and family) is still the number one source of planning information for leisure pursuits (87%), although newspapers (64%), Internet (45%), TV (44%), and radio (36%) also play a role in the northern Front Range in how visitors plan their outings.

Word of mouth marketing will be pursued via trailhead postings of programming opportunities, and related positive experiences from previous guided hikes/walks with Volunteer Naturalists. Free and social media will also be used to promote activities at RBOS.

The data below, from two local studies supports the assumptions made based on the statewide Pricewaterhouse Cooper studies.

Larimer County Parks and Open Lands Visitor Survey

During the summer of 2005, Larimer County conducted a series of self-administered surveys (on-site and mail) to explore visitor satisfaction of facilities and services at select County Park and Open Lands areas. Self-administered survey data were collected at Devil’s Backbone Open Space, Horsetooth Mountain Open Space, Eagle’s Nest Open Space, Fossil Creek Open

Space, and Ramsay-Shockey Open Space. A total of 372 visitors completed surveys at these areas. The following summarize relevant highlights from these 372 surveys:

- Spending time with friends and family (41%), picnicking (18%), viewing wildlife and scenery (55%), hiking (70%), and biking (20%) were among the popular activities for these visitors.
- 22% of respondents stated that they had participated in an education program activity (guided hikes 16%, campground programs 6%).
- When asked to suggest ideas for educational programming, visitors chose wildlife programs (8%), kids' programs (3.2%), guided hikes (2.7%) and plant identification (2.4%).
- Nearly one third of respondents (32%) felt that more environmental education programming was desirable.

Fort Collins Natural Areas Survey, 2006

In 2006, Corona Research, Inc. conducted a visitor studies project to determine the number of City of Fort Collins Natural Area annual visits and to explore visitor perceptions, preferences, and satisfaction with the natural areas. Both observational surveys and intercept surveys were employed in this research. Highlights from this research include the following:

- Natural Areas receive an estimated 3.7 million visitors/year.
- Hikers/walkers make up an estimated 1.4 million visits annually; bikers make up an estimated 1.5 million visits/year.
- Hiking was the most frequent recreational activity reported by respondents (70%), followed by biking (50%) and wildlife viewing (43%).
- An estimated 65% of all visitors occur on weekdays, and estimated 35% occur during the weekends.
- Over half of respondents reported that they visited Fort Collins Natural Areas more than 50 times per year (approximately once/week).
- Respondents mostly enjoy the solitude, peacefulness, and relaxing elements of the natural areas (25%), nature and wildlife (18%), and well-maintained aspects of the trails and natural areas (14%).

These studies done on LCNR Properties as well as the City of Fort Collins Natural Areas help to inform the style and timing of personal interpretive programming, as well as supporting the experiences planned for RBOS.

Greeley Poudre River Trail Use Survey

In 2009, the city of Greeley conducted a survey of recreational use on the Poudre River Trail. This survey considered the amount and types of use on the Poudre River Trail between Island Grove Park (Poudre River Trail terminus in Greeley) and the CR13 Trailhead (approximately 1 mile south of RBOS).RBOS) Limited demographic data were estimated by the volunteers collecting data on the age of trail users (through observation only). No users were contacted by volunteers conducting the surveys, but counts of visitors and types of use were recorded. The survey was conducted one time per season (4x in 2009) at each location listed in the tables below.

Table 4. Age of trail user								
Age range	<16	16-25	26-35	36-46	47-56	57-66	>66	Total
Total users	104	143	212	389	209	114	39	1210
Percentage of total users	8.6%	11.8%	17.5%	32.2%	17.3%	9.4%	3.2%	100%

Table 5. Activity of trail user							
Activity type	Walking	Running	Biking	Roller Blading	Walking Pet	Other	Total
Total users	368	80	590	27	116	29	1210
Percentage of total users	30.4%	6.6%	48.8%	2.2%	9.6%	2.4%	100%

Table 6. Weekly estimated trail traffic (reported in #'s of people)							
Trail location	West County Rd. 13	Poudre Learning Center	Kodak Trailhead	Island Grove Park	71 st Ave.	35 th Ave.	Total by time of day
Weekday morning	241.67	429.26	158.33	83.33	100	75	1087.59
Weekday afternoon	175	218.17	287.50	150	466.67	158.33	1455.67
Weekday evening	60	73.62	190	50	46.67	160	580.29
Weekend	320.57	514	167.2	112.44	774.89	125.4	2014.5
Total by location	797.24	1235.05	803.03	395.78	1388.22	518.73	5138.05

Analysis of Visitor Inventory:

Based on the data above the audiences at RBOS are expected to be comprised of a variety of recreation users, chief among them bikers, followed closely by hikers. Motivations for coming to RBOS may include exercise outdoors, wildlife viewing (bird watching included) as well as interest in the cultural significance of the site. Planning for numerous educational programs is also supported by the data, and focus on wildlife and cultural resources is most appropriate.

The PWC Market Assessment suggests that outdoor recreationists are seeking more diverse opportunities (i.e., a wider range of activities), and in some cases, opportunities with less or minimal development (Table 1). Larimer County Open Spaces offer visitors a full spectrum of possibilities, and River Bluffs Open Space further contributes to that diversity with opportunities for access to the river, with potential for boating and fishing. From a management perspective, RBOS offers opportunities toward the developed end of the Recreation Opportunity Spectrum (flush-toilets, paved trail) and visitor experiences should be educationally commensurate with this management. For example:

- On-site information and education is moderate, consistent with the site aesthetic, and assumes that visitors are prepared physically and intellectually for a developed experience.
- On-site information and education inspires stewardship behaviors and provides unique site-specific messages as opposed to broad, general environmental education.

Select current popular outdoor recreation activities such as picnicking, trail recreation, visiting historical sites, and nature/wildlife viewing (Corona Research) are consistent with proposed RBOS management. Furthermore, visitor preferences for smaller crowds, more parks with minimal development, more trail opportunities, more educational programs (Table 3, and LCNR Data) are also consistent with RBOS. Finally, select motivations for visiting such as escape, self-

fulfillment, and being with others (Corona Research, PWC Market Assessment) are consistent with planned opportunities for RBOS. These niche opportunities should be marketed and education programs developed accordingly.

Based on the studies of Fort Collins Natural Areas users and Larimer County Parks and Open Spaces users, we can expect a high number of repeat visitors, and high interest in programs on cultural resources and wildlife. To address high levels of repeat visits a series of interpretive signs for the kiosk, which will be changed out seasonally will help to provide new information throughout the year.

As the recreation opportunities at RBOS are short-term and transient in nature (biking was the highest observed instance in the Greeley trail surveys) and visitation is likely to be high among bikers and hikers (our most likely audience for waysides), wayside, interpretive exhibits along the trail are favorable techniques if they are placed in areas where visitors are likely to stop and will not impede other traffic on the trail (Trapp, Gross, Zimmerman, 1991).

Messages for non-personal interpretive materials are typically divided into four categories by priority. Level 1 messages focus on theme awareness (typically the main message of the sign is in the title), level 2 on awareness of message components, level 3 on selected details and level 4 on how viewers can act on their new knowledge (Ham, 1992). Typically, it is difficult to hold a reader's attention long enough to get to a level 4 message, and at RBOS this will be more of a challenge due to the nature of the recreation there.

It is recommended that waysides along the trail primarily focus on the first two levels, treat the third as a lower priority, and potentially forgo the fourth altogether. Signs at the trailhead may offer opportunities for all levels because visitors may be willing to take more time to read the information if they are waiting for their partner or picnicking in the area.

Section 3: Educational Opportunities and Options

This section of the plan contains themes for visitor experiences, statements of significance regarding the natural and cultural resources of River Bluffs Open Space (RBOS), and recommendations for personal and non-personal educational products. The products briefly outlined in this plan will be phased in over the next three to five years, and the themes and goals of each will be fleshed out more as each individual project begins.

3.1 Broad themes and vision for visitor experience

Overall theme for River Bluffs Open Space

Although small, River Bluffs Open Space is a significant Open Space because of the myriad of connections it provides to our communities and visitors. The Poudre River, and Poudre River Trail connect each community they flow through, allowing for unencumbered access for visitation, recreation and commuting. This significant regional trail provides connections between municipalities partnering to ensure its success. People and wildlife alike are inherently connected to the site because of the river. Due to the cultural and agricultural resources visitors here will feel connected to their past, and to the agricultural heritage of the county. These connections culminate to provide a high quality visitor experience, and a strong sense of place on this conserved landscape.

Interpretive tagline and banner for River Bluffs Open Space:

In keeping with the overall site theme and vision for visitor experience's focus on connections, the proposed tagline for River Bluffs Open Space is:

“The Past Flowing Through the Present”

This statement encapsulates the overall site theme for the property, with an obvious nod to the cultural and historic nature of the river; however, the metaphor of the word “flow” is also a nod to the riparian ecology that dominates the site. This tagline will appear on select interpretive media throughout the site and will complement the visual representation of the theme in the RBOS Banner.



Statements of Significance for River Bluffs Open Space:

Statements of significance about a site are highly useful to narrow down the significant messages to relay to the public about a particular open space. Volunteers will use these statements to craft program themes for personal programs, and they will all end up being used in non-personal interpretive materials as well.

1. River Bluffs Open Space encompasses all of the aspects the Open Lands Program represents: Recreation, Agriculture, Western Heritage, Significant Natural Resources and Aesthetics, History and Partnerships. All of this takes place on a relatively small plot of land, where the dichotomy of arid and aquatic life zones is stark and apparent.

2. Rivers are the pulse of our communities and remain flashpoints for debate with regard to resource use, recreation, and agriculture.
3. The Cache la Poudre River has been a living laboratory for the improvement of water delivery systems and water law in the West. Ditches flowing from the river were completed with community-wide interest and a spirit of cooperation, not unlike the creation of regional trails and preservation of Open Spaces today. The successes of irrigation practices in northern Colorado have flowed out of the state like a river to other Western states.
4. Rivers, such as the Cache la Poudre, connect all aspects of our environment: built, natural, social and agricultural. Greenways along rivers provide access to both human and nonhuman travelers.
5. River Bluffs Open Space will serve as a connection and trailhead for the significant regional trail system, the Poudre River Trail.
6. River Bluffs Open Space has been used by humans for thousands of years as a campsite, a homestead for agriculture, and now in the present day, for recreation. Agriculture will continue on the landscape and offer visitors views of working farm operations and irrigation unseen in many other County-protected areas.
7. The Cache la Poudre River provides significant habitat for wildlife and access to high quality recreation for humans. These potentially divergent aspects of the river are well balanced at River Bluffs Open Space. Wildlife inhabits the air, land and water at River Bluffs Open Space, while visitors are invited to share the greenway corridor of the Poudre River Trail with these natural inhabitants.

3.2 Recommendations for Educational Media and Personal Interpretation

Based on the inventory and analysis (Section 2) and broad themes for visitor experiences, the following non-personal and personal interpretive media are recommended. Table 7 below summarizes recommendations presented within this section, while more detailed descriptions of products and personal interpretive programs follow.

Phasing of non-personal interpretive materials:

Funding is currently available for the completion of the trailhead kiosk, as well as one of the two proposed interpretive waysides along the Poudre River Trail. Additional funding will be sought through grants and donations to complete the remaining products proposed along the following scheme.

Phase 1: Products with current funding including trailhead kiosk signs (including the interpretive panel set) and one wayside interpretive sign.

Phase 2: Products where funding will need to be secured and the wild zone.

Phase 3: Products where funding will need to be secured including the interpretive retrofit of the bridge over the Cache la Poudre River.

Table 7. Summary of Proposed Educational Media Recommendations

Deliverable	Brief Description	Implementation Phase
Recommendation Set #1 – Pre-Visit Information and Education		
Website	A webpage for RBOS has been established within the template for property pages with information detailing site location, amenities at the site and acquisition information	1
Site Brochure	None planned – see note below	n\a
Recommendation Set #2 – Trailhead Area		
Trailhead Kiosk	A 3-panel core ten steel kiosk cut in the shape of a cottonwood tree canopy and set into blocks faced with locally sourced river rock. Kiosk will include a map panel, acknowledgements sign, emergency information and regulations sign as well as a set of seasonal interpretive panels (described below)	1
Interpretive Panel Set	A set of four interpretive panels changed seasonally on the left hand kiosk panel. Topics to include – Historic overview of Poudre River, Conservation Collaboration: PR Trail, Bluff vs Riparian ecology and riparian area wildlife	1
Recommendation Set #3 – Trail Wayside Interpretation		
Cultural Wayside	A single 36 x 24 high pressure laminate panel mounted on a single post discussing the reasons the area has been utilized by humans across many different cultures and time periods. Specific attention will be paid to the archaic Woodlands culture, whose artifacts have been found in the bluff area, indicating a major activity area.	1
Agricultural Wayside	A single 36 x 24 high pressure laminate panel mounted on a single post discussing the agricultural heritage of Larimer County and River Bluffs Open Space. Specific attention will be paid to significance of Poudre River in the development of western water management.	1
Recommendation Set #5 – Bridge Interpretation		
Handrail Retrofit	Water jet cut panels artistically depicting human history from the archaic period of 2000 years ago through today fitted onto the handrails of the bridge, running its length.	3
Recommendation Set #6 – Wild Zone at River Bluffs Open Space		
Wild Zone	A designated area of Open Space with limited natural resource values where the regulations for the protection of natural resources may be suspended to allow for high quality unstructured play experiences for local youth and families.	2

3.2A Non-personal Interpretive Products:

Pre-Visit Information:

Site Web Page

Description: A section of the LCNR Webpage dedicated to RBOS under the Parks, Reservoirs, Open Spaces, and trails tab that offers a brief overview of RBOS, a trail map, and current conditions.

Site Brochure:

Special note: Due to the small size and transient nature of the recreation expected at River Bluffs Open Space as a result of primarily being a trailhead site for the Poudre River trail, it has been determined that no site brochure is called for in this instance. Future additions of brochures covering the entire PRT experience will suffice to highlight Larimer County Natural Resources involvement with that project.

Trailhead Kiosk:

Description: A three panel trailhead kiosk produced from corten steel cut into the shape of cottonwood trees containing orientation and interpretive signs for the area. Welcome achieved through brushed nickel lettering adhered to the kiosk. County logo appears in brushed nickel as well. Sign panels will include 1) regulations and emergency information, 2) Map panel, 3) Acknowledgements panel, and 4) interpretive panels (see description below). Signs will be produced with .08 gauge aluminum, and have UV laminate coating applied. Kiosk will also include a brochure box (5 slots), and two flyer holders for department announcements.

Theme: River Bluffs Open Space is significant both for its natural resources, cultural history, and the use of the Poudre River for the development of Western water management.

Goal: To provide an on-site welcome and orientation to visitors with regard to opportunities for way finding, regulations and current announcements.

Kiosk Interpretive Panel Series:

Description: A series of four seasonal interpretive panels for the trailhead kiosk. Each sign will cover a distinct aspect of River Bluffs Open Space including 1) Cache la Poudre River Historical Overview, 2) Conservation Collaboration with special attention to the Cache la Poudre River Trail Project 3) The ecology of the Bluff (dry, arid) versus the ecology of the river (wet, green) and 4) riparian wildlife.

Theme:

- 1) Cache la Poudre River Historic Overview
The history of Larimer County can be told through the diverse history of people's interactions with the Poudre River.
- 2) Conservation Collaboration
Patchworks of conserved lands can be connected through trails.
- 3) Bluff/River Ecology
From dry and rocky to wet, lush and vibrant in less than a mile!
- 4) Riparian Wildlife – Birds and Greenways
Critters of all shapes and sizes rely on riparian areas to make a living.

Goal: To provide visitors with a basic understanding of the cultural significance and ecology of River Bluffs Open Space and the Cache la Poudre River, contributing to their feelings of sense of place for the site.

Interpretive Waysides:

Description: Two wayside trail signs detailing significant aspects of River Bluffs Open Space. Each wayside will include a single post mounted 36" x 24" high pressure laminate panel mounted on a single post. The first wayside (covering culture) will be located at the toe of the bluff on the west side of the trail near Fossil Creek. The second wayside (covering agriculture) will be located on the north side of the trail near the Hwy 392 underpass, with the viewshed being north across the agricultural field.

Wayside #1: Cultural – People of the Poudre River Valley

Theme: People of all cultures and lifestyles were drawn to this landscape because of its proximity to the river and the abundance of resources it provides.

Goal: To highlight the cultures that came before European settlement of the area and demonstrate the connections shared between cultures that have made use of this place.

Wayside #2: Agriculture – Farming in the fertile Cache la Poudre River Valley

Theme: Agriculture has been a mainstay of life in Northern Colorado since the first European and American settlers began homesteading here. Although the methods have evolved, this important connection to the landscape has endured.

Goal: To highlight some of the significant evolutions in water development and agricultural management of northern Colorado and the Cache la Poudre River.

Bridge Interpretation

Description: A retro-fitted interpretive element on the bridge crossing the Poudre River, running along the length of the bridge fitted to the handrails. Element would be fabricated from similar steel as the bridge, with water jet cuts depicting the cultural history of the Poudre River Valley from Archaic times (~2,000 years ago) to today. Images may include campsites, homesteads, agricultural development, and recreational development.

Theme: The myriad of land uses allowed to humans because of riparian areas has evolved with the cultures who have influenced this landscape.

Goal: To enhance the built environment on-site at River Bluffs Open Space, weaving the site's interpretive themes into its built environment.

Wild Zone at River Bluffs Open Space

Description: A designated area bounded in to distinguish it from other parts of the Open Space, wherein the normal regulations in place for resource protection on Open Spaces are reduced or suspended allowing for off-trail use, the building of forts, digging of holes, collecting plant and insect life, and making of mud pies, among other things. Area would be signed as an "Open Space Wild Zone" with a brief explanation of the concept and encouragement of the above activities, along with critical restrictions on behavior (no fires etc).

The area for consideration at River Bluffs Open Space is a grove of trees adjacent to the trailhead area parking lot.

River Bluffs is a good candidate for this use due to its proximity to local neighborhoods, as well as the lower resource values of the specific locations on the property described above.

This type of land use is new to the Open Lands program and will require buy-in from the Open Lands Board and key staff, as well as some public scoping. Field trips to other local "wild zones," such as at the High Plains Environmental Center, and inquiries into the structure and planning from these areas will be essential to the success of the area. Other resources including Ken Finch's design guidelines for nature play spaces, and the work of Karen Payne and David Hawkins on the topic of Wild Zones will be valuable for this process.

A small team of staff including members from operations, resource and education teams will be formed to discuss potential issues (non-staffed area, potential issues with neighbors, liability, extent of development, etc.) and make recommendations for the development of this use during 2011.

Following establishment marketing, this use to the local neighborhoods and wider visitor base will be important and can take place through the department website, social media sites, and free press.

Theme: Let the children play.

Goal: To encourage high quality unstructured play in a natural setting without the additional encumbrances of typical regulations on Open Space properties.

3.2B Personal Interpretive Programs:

LCNR offers a variety of programming for the public on Open Space properties. Many of these opportunities will be expanded to include RBOS.

The LCNR Volunteer Naturalist Program will include programming at RBOS in early 2011. New programming will be offered to the public in the form of nature hikes dedicated to riparian area ecology (Riverwalk Talks), a topic not readily covered in other Open Space properties managed by LCNR. This site will also offer good opportunities for programming related to bird-watching, especially bald eagles, due to the location of a well-known bald eagle nest just north of the property.

Other special opportunities to interpret the historical aspects of the property may also arise. Programs and talks regarding the archeological significance of the site may be successful through partnerships with students and professors from Colorado State University's Archeology program. In the past, a great deal of public interest was shown in the excavation Kaplan-Hoover Bison Bonebed site just south of RBOS.

Plans for CSU's archeological field school to continue survey work on the RBOS may offer opportunities for public interpretation of the field methods and surveys conducted by students. Additionally, some students from the Public Interpretation of Archeology class may offer creative ideas for public programs, including cooking in replicas of stone hearths, tossing replica spears with atlatl, and others.

Partnerships with the Poudre Heritage Alliance may allow for programs to highlight the agricultural significance of the property and the Cache la Poudre River. Flood irrigation is still used on the property, and at least one of the agricultural fields will be in use various times of the year, presenting opportunities to connect or reconnect the public with the agricultural heritage of the county. Discussion of the water systems that make life possible along the Front Range of Colorado are also appropriate and will be developed.

Popular programs including the Critter Scene Investigations (snow tracking) and Nature Notes Club can also be expanded to RBOS. Simple programs centered on recreational activities may also be possible at River Bluffs Open Space, including bike rides along the Poudre River Trail and fishing instruction. Additional "how-to" programs could take place in the proposed wild zone related to wilderness survival, potentially allowing participants to build shelters and complete other hands-on activities typically not allowed in other Open Space areas.

The LCNR School Field Trips program is expected to incorporate RBOS as a field trip site. This site will be somewhat unique among the Open Spaces in that it will provide access for education in and around the river. Content areas can now be expanded to include the study of riparian plant communities and wildlife, macrobiotic invertebrates, water quality, the archaic cultures of the past and the agricultural heritage of Larimer County. Partnerships with Fort Collins Utilities, who already carry out field trip programs studying water quality, may help facilitate this addition.

Section 4: Action and Implementation

4.1 Proposed Budget for Interpretive Media

Table 8: Budget for planned non-personal interpretive media

Product	Cost Assumptions	Sub-Total	Funding
Website	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Staff Time) • Evaluation costs(Staff Time) • Production costs - none 	n/a	n/a
Trailhead Kiosk Signs	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Contracted) assumes 20 hours at \$25/hour with 3-4 design iterations with staff reviews - \$500 total • Evaluation costs(Staff Time) • Production costs (Contracted) assumes \$14.25/sq ft and ~ 8.5 sq feet of sign - \$122 total. Five section brochure rack - \$400 total 	\$1025	RBOS Development Budget Friends of Larimer County (?)
Trailhead Interpretive Panel Set (<i>1 complete, 3 remain – all included here</i>)	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs(Contracted) assumes 35 hours at \$25/hour with 3-4 design iterations with staff reviews - \$875 • Evaluation costs(Staff Time) • Image Acquisition – Assumes historical images will be sourced from outside vendors at \$15-20 per image ~ 6-8 images - \$120 total • Production costs (Contracted) assumes \$14.25/sq ft and ~ 16 sq feet of sign - \$228 total 	\$1225	RBOS Development Budget Friends of Larimer County (?)
Cultural Wayside	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Contracted) assumes 30 hours at \$85/ hour with 3-4 design iterations with staff reviews - \$2,550 total. • Image Acquisition/Illustrations (Contracted) Assumes historical images will be sourced from outside vendors at \$15-20 per image ~ 3-5 images – \$75 total • Illustrations sourced for \$400-500 • Evaluation costs(Staff Time) • Production costs (Contracted) assumes 12 color printing process HPL sign panels at \$260/panel. Assumes frame/post cost of \$450 - \$710 total 	\$3,835	RBOS Development Budget
Agricultural Wayside	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Contracted) assumes 40 hours at \$85/ hour with 3-4 design iterations with staff reviews - \$3400 total. • Image Acquisition/Illustrations (Contracted) Assumes historical images will be sourced from outside vendors at \$15-20 per image ~ 3-5 images - \$75 total. • Evaluation costs(Staff Time) • Production costs (Contracted) assumes 12 	\$4185	Grant funding (unsecured)

	color printing process HPL sign panels at \$260/panel. Assumes frame/post cost of \$450 - \$710 total.		
Handrail Retrofit	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Contracted) assumes 40 hours at \$85/ hour with 3-4 design iterations with staff reviews - \$3400 total • Evaluation costs(Staff Time) • Production costs (Contracted) assumes water jet cutting of panels \$4,500 • Installation(Contracted or in-house) assumes 1 day of labor at \$25/hour - \$400 total 	\$8300	Grant Funding (unsecured)
Wild Zone Area	<ul style="list-style-type: none"> • Content Development (Staff time) • Design-development costs (Staff Time) • Evaluation costs(Staff Time) • Production costs – unknown at this time. Costs will emerge as a part of planning process based on parameters for Wild Zone throughout 2011 	Unknown, will be determined through planning in 2011	
Total		\$18,570	

4.2 Schedule or timeline for implementation

Table 9: Implementation Schedule for non-personal interpretive media

Dates	Phases
Spring 2011	Form Wild Zone Core Team and establish parameters for potential Wild Zone at RBOS
Summer/Fall 2011	Phase 1 Products Developed – Cultural Wayside and remaining 3 interpretive panels on trailhead kiosk. Continue discussion related to Wild Zone at RBOS and begin to implement as appropriate.
Winter 2011/Spring 2012	Seek grant funding for Phase 2 products – Agricultural Wayside
Spring/Summer 2012	Depending on success of grant opportunities implement Phase 2 products – Agricultural Wayside