Green River Trails Opportunity Plan

Green River, Utah

2014

EPICENTER

GREEN RIVER utah

Produced by:
National Park Service
Rivers,Trails, & Conservation
Assistance Program

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City of Green River

RESOLUTION NO. R 02-2015

A RESOLUTION ADOPTING A PLAN FOR DEVELOPMENT OF TRAILS WITHIN THE CORPORATE LIMITS OF THE CITY OF GREEN RIVER, UTAH, AND IN SUPPORT OF TRAILS IN THE SURROUNDING AREAS PRESENTED IN THE GREEN RIVER TRAILS OPPORTUNITY PLAN

WHEREAS, the Mayor and City Council for the City of Green River, Utah, desired to have a plan to develop trails in Green River within the corporate limits of the City of Green River and;

WHEREAS, the City of Green River, Utah wishes to seek financing through grants to fund future projects to develop trails within the corporate limits of the City of Green River, along with surrounding areas;

NOW THEREFORE, be it resolved by the City Council of the City of Green River, Utah adopt the Green River Trails Opportunity Plan (2014) for the trails in the City of Green River, and be it further resolved that the Mayor as Chief elected official will be the authorized representative of the city to act on matters relating to this plan.

Approved by the City Council of the City of Green River on the 11 day of February, 2015.
____voting aye,__voting nay.

Patrick M. Brady

Pat Brady, Mayor

ATTEST:

Conae Black

Conae Black, City Recorder

Introduction

Executive Summary

The City of Green River, Utah, was awarded technical assistance by the National Parks Service's Rivers, Trails, and Conservation Assistance (RTCA) program in October 2013. Technical assistance was provided for the preparation of a Trails Opportunity Plan. The overall objective of creating the plan was to provide a guide for the City of Green River that could be used to implement a trails system in Green River.

This plan represents the planning process that has taken place in Green River, Utah, during 2013-2014. It documents the work of the Green River Trails Committee in defining the City of Green River's objectives in regards to trails planning. Beginning with a kickoff meeting on February 4, 2014, a group of potential trails committee stakeholders convened. Over the course of the spring, summer, and fall of 2014, this group of stakeholders was refined to represent various stakeholders and organizations. Several organizations were identified as stakeholders during the discussion of trail development and planning in Green River.

These organizations included:

- Bureau of Land Management (BLM), Moab Field Office
- BLM, Price Field Office
- City of Green River
- Emery County
- Epicenter
- Green River Business Potluck
- Green River Conservation District
- Green River State Park
- John Wesley Powell Museum
- Utah Department of Transportation
- Utah Forestry, Fire, and State Lands
- Utah State Parks

During the course of meeting with individuals from the stakeholder group, a vision statement and goals for a Green River trails network were identified. A Trails Open House on August 13, 2014 provided an opportunity for public involvement. It allowed the public to identify trail opportunities that exist or should be developed in Green River and its surrounding areas. The results of the Trails Open House can be found in Appendix A.

Information provided by the Green River Trails Committee and the Trails Open House are included with this plan. The idea of trails being an amenity of residents of the City of Green River is also supported by the findings of a General Plan Survey conducted by the Green River Planning Commission (Appendix B). During the planning process, city and local trail opportunities, as well as regional connections, were identified. Issues and opportunities are presented in this document (Chapter 2) prior to other sections of the plan that provide greater detail involving trail opportunities and constraints.

Several themes emerged which have informed the descriptions and names of trails represented in this plan. The History Walk is derived primarily from the work of Epicenter. The City Walk is a response to the information provided during public involvement that wanted to connect various aspects of the City and its businesses and parks. The Green River State Park section derives from meetings with representatives from Green River State Park, and their willingness to consider future trails on a parcel north of the Green State Park Campground and Golf Course.

The River Walk Trail represents a desired alignment of the Green River Trails Committee and residents of Green River. Discussions are occurring with private land owners to determine the feasibility of acquiring trail easements across private property to connect to the River Walk from Main Street and portions proposed on Green River State Park.

John Wesley Powell Museum and Monument Hill have already had trail construction projects take place during the past year. The work completed on the John Wesley Powell Museum property was based on a 2014 plan completed by Utah State University's Department of Landscape Architecture and Environmental Planning (See Appendix C). This Trails Opportunity Plan (TOP) will provide an overview of what still needs to be done with these trails. Lastly, trailheads will be needed to provide staging areas for trail use in Green River. Potential trailhead locations and some design criteria are provided to guide future development of trailhead facilities.

Regional routes were discussed as well, as many destinations exist in the areas surrounding Green River. Four major areas have been identified for future regional routes. These areas include: Swasey's Beach, Crystal Geyser, Blue Castle Cove, and an Airport Road route that would lead visitors to the San Rafael Swell, Saucer Basin, Goblin Valley State Park, and an area near Chaffin Ranch with a proposed future boat ramp. These routes will lead to areas where future mountain bike single-track trails are being proposed, such as in the San Rafael Swell, Blue Castle Cove, and trails near Swasey's Beach.

Lastly, this plan lists potential grant funding sources to help finance the construction of the trails. This document is intended to provide a planning foundation to allow Green River to be competitive when applying for funding. In order to complete the number of trail opportunities in this plan, the City of Green River and its partners will need to have sustained efforts in refining the ideas presented in this plan to attain the funding needed to realize the opportunities this plan presents.

Acknowledgments

The 2014 Green River Trails Opportunity Plan is the result of a collaborative effort between the Green River Trails Committee, City of Green River, Epicenter, and the National Park Service, River, Trails, and Conservation Assistance (RTCA) program.

The City of Green River applied to the National Park Service's RTCA program for assistance involving trail planning. Instrumental to the successful application for assistance was the City of Green River and Epicenter, a non-profit group based out of Green River. Both partners provided the critical support to ensure the successful completion of this plan. Their efforts resulted in the formation of the Green River Trails Committee. Members, including: Kelly Dunham, Karen Smith, Penney Riches, Tim Glenn, Joshua Rowley, Travis Bacon, and Terry Coppin were instrumental to this planning effort and will be relied on to carry forth the ideas captured in this document. In particular, Karen Smith and Penney Riches provided support in coordinating with City staff and trail partners, securing meeting places, and following up on action items discussed during trail committee meetings. Jack Forinash and Steph Crabtree, representing Epicenter, were instrumental in helping set up meeting spaces, recording meeting minutes, reaching out to local citizens and trail committee partners, and providing surveying and inventory services to help identify needs involved with the development of the table of contents. The History Walk trail is a direct result of Epicenter's involvement with the trail planning effort, with Epicenter employee Evan Rimoldi conducting research on the history and significant sites of the City, along with a proposed trail route.

Green River State Park provided input on potential uses of state park's land in Green River for trails. Currently, Green River State Park offers the community and its visitors a nine-hole golf course, a campground, and a boat ramp. By working closely with Green River State Park staff in the future, the City could be able to greatly increase the trail opportunities in Green River.

Other local, state, and federal agency representatives, along with interested citizens and business owners were also part of this planning process. Green River Trail Committee members and partners met six times in person from February-November 2014. In addition, two conference calls were held. During these meetings members provided insight into how various aspects of trails and recreation in Green River could be developed and prioritized in the TOP and then moved forward towards implementation. In particular, Keith Brady, Joshua Rowley, Travis Bacon, and Penney Riches have put forth effort to secure funding from local businesses to account for maintenance needs involving trails in and around Green River. These efforts will be critical to establishing and maintaining trails both within the City and the region.

History & Background of Green River[1]

On the banks of the Green River in Southeastern Utah, the City of Green River is near the historical crossing point of the river. Prior to European expansion into the western North American continent, some native cultures made the areas surrounding the current City their home. Rock art from prehistoric cultures, the Fremont cultures, and Ute cultures appears in several canyons near the City. As the more recent Ute cultures were displaced by European expansion into the Southwest of North America during the 1800s, the Old Spanish Trail defined the surrounding area. Spanish settlers traveling between Santa Fe and Los Angeles along a northern branch and a main branch of the trail converged in an area southeast of the City. This convergence of the Old Spanish Trail defined the area as a natural staging area and way-point before travelers forded the Green River a few miles north of the current City.

Despite travel along the Old Spanish Trail and the only fording point along the river available to travelers, no permanent settlement occurred in the area. This changed in 1876 when a mail carrier named J.P. Blake chose today's city location for his way station and ferry business. Soon the settlement became known as Blake, and established itself a canal to irrigate land for agriculture. By 1883, a section of the Denver-Rio Grande Railroad was completed a few miles north of town and Green River grew to 375 residents. A new town, Elgin, was soon established east of the river. In 1906, Green River City was incorporated as a town, with city limits running to the middle of the river. The same year, Green River City began promoting itself as a fruit growing region, with an estimated 15,000 fruit trees being planted. With this boom in production, irrigation systems were expanded to meet rising demand. This fruit boom was short lived, as in 1916 a severe winter killed off most trees in the area. Despite the short lived fruit boom, agriculture did influence land development within the City, and continues to be central to its economy and culture, as today it is well known for its melon growing.

Land east of canal was not developed, thereby making Broadway the main thoroughfare in the City as the age of the automobile arrived. A 1910 wagon bridge built near the current day railroad bridge allowed travel across the river without ferry service. In 1913, this bridge would allow an auto trail, the Midland Trail, to be routed through Green River. The Midland Trail was an early trail that connected Washington D.C. to Los Angeles, California. The Trail eventually became designated as U.S. Route 6/50 in 1937. This designation, and the increased development of the route through federal initiatives, caused Main Street in Green River City to grow rapidly. Between 1948 and 1952 three service stations and six motels were built in the City. This corresponded to the construction of new bridge across the Green River after the original wagon bridge collapsed. This period of expansion and growth also witnessed the designation of O.K. Anderson Park in 1949.

Corresponding with growth resulting from the railroad and the automobile, Green River City also saw an increase in mining activity in the region. Since the 1930s, the region had seen an increase in mining and drilling operations. With the invention of the atomic bomb and nuclear technology in the 1940s, the 1950s saw uranium mining become a central fixture in Green River with the establishment of the Union Carbide Nuclear Company. Stationed in Elgin, the Union Carbide Nuclear Company employed nearly 40 people in the production of mined uranium. As with most mining operations, however, this company would end up being fairly short lived, and its facilities were soon usurped into the Utah Launch Complex. In 1963, the complex opened as a branch of the White Sands Missile Complex in New Mexico.

The launch complex brought great economic growth to the City. Administered by the United States Department of Defense, the Utah Launch Complex in Green River City encompassed

nearly 1,600 acres and employed 410 military and civilian employees. The influx of new residents resulted in the population of Green River City rising to its all-time high of nearly 2,000 residents. This period of growth was soon followed by the construction of I-70 to the south of town. Because the new interstate lacked a bridge across the City of Green River, traffic was funneled into the City via the bridge leading to Main Street. The new freeway, combined with the Utah Launch Complex, led to increased prosperity for businesses in the town.

The years of economic growth and stability from 1950-1980 would soon change when in 1982 the Utah Launch Complex was terminated, and in 1983 a bridge on I-70 was completed, thereby allowing traffic to bypass Green River City. By 1990 the City's population had declined to nearly 870 residents. In the years following the Utah Launch Complex and uranium mining boom, the economy of the City relied primarily on a hospitality and service economy to bolster the traditional agricultural base economy. With the beginning of the 21st century, the service, hospitality, and agricultural industries continue to be a steady base from which Green River City prospers, while it seeks a more diversified economy and culture involving oil and gas production and nuclear power. In the meantime, the service industry continues to promote the area for tourism, drawing on the vast natural resources available for the explorative traveler, such as the San Rafael Swell, the Book Cliffs, and the ever present Green River and its recreational opportunities.

[1]The History and Background section presented here is a shortened version of a research report conducted by Epicenter. (2014)

Project Focus & Planning Process

Project Focus

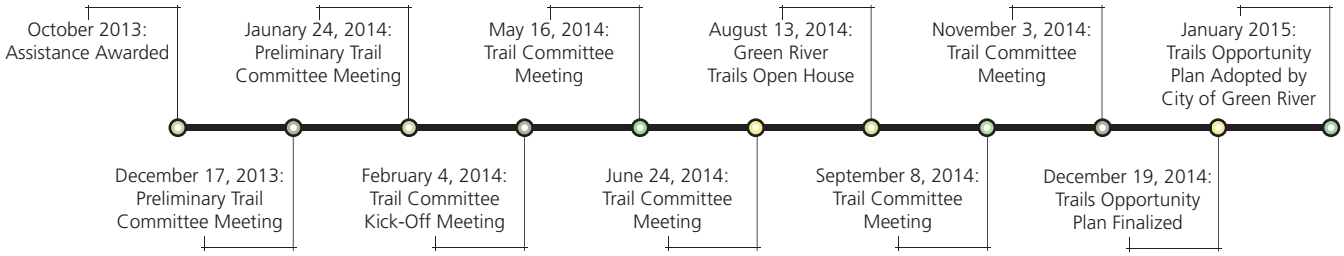
The focus of this project has been two-fold. The primary focus has been trails planning for areas within the municipality boundaries. In particular, areas of development, such as residential neighborhoods, and business districts have been analyzed for trail opportunities. Perhaps an exception to these location types has been the northern parcel of Green River State Park, which is a relatively undeveloped area in the heart of the City. The proposed trail opportunities will provide greater connectivity for recreational activities.

The second project focus has involved regional connections. Through the course of trail committee meetings and the Trails Open House, areas of regional interest were identified. This plan details proposed routes to each of the regional destinations.

Planning Process

The City of Green River was awarded technical assistance by the National Park Service, Rivers, Trails, and Conservation Assistance Program in October of 2013 to begin the planning process. A group of people interested in participating in trails planning for Green River organized themselves with the help of City personnel and Epicenter. On February 4, 2014, a trails committee kick-off meeting was held at the Green River City Hall. This meeting discussed the intention of the trails committee to develop trails for the community of Green River. Subsequent meetings were held in May and June to help develop the focus of trails planning efforts. A vision statement and goals for the trails committee were developed and decided upon during the May and June meetings. Following these meetings, it was determined that public involvement was needed.

On August 13, 2014, a Trails Open House was held at Green River City Hall. Brief presentations were given during this meeting by the Mayor, Pat Brady, Green River City Council Liaison, Penny Riches, and RTCA staff, Marcy DeMillion and Zach Maughan. After the presentations, attendees of the Trails Open House were asked to participate in a survey and identify trails on city maps. The Trails Open House comments can be seen in Appendix A. The results of the Open House were then prioritized by the Trails Committee. After prioritization, the Trails Committee also identified trail issues, opportunities, and committee roles. The results of this planning process make up the bulk of this document.



Vision Statement

A non-motorized trails system for both residents and tourists; connecting natural, historic, and cultural resources; providing recreational opportunities; promoting health and education awareness; and establishing the first water trail in Utah.

Goals

Economic Development: Become a destination attraction to encourage visitors to spend time in or near Green River to support local business.

Recreation: To enhance access to recreation opportunities, that connects the community to trails and destinations, including the National Historic Old Spanish Trail.

Health: To promote physical activity for everyone.

Resource Protection: To promote education and stewardship for visitors and residents to protect and understand our fragile natural and historic environment.

Community Enhancement: Stimulate community pride and participation through outdoor activities, by adding amenities for visitors and residents.

Resource Enhancement: Enhance the aesthetic beauty and ecological integrity of the surrounding natural resources through community restoration efforts such as noxious weed control, native vegetation plantings, and wildlife habitat enhancement/preservation.

Issues

Several issues have been identified that may affect the implementation of trails or the long term success of trails in Green River. This list is considered dynamic and will grow and change over time, as trail projects are implemented and new issues arise and old ones are solved.

Issues include:

- Crossing Private Property
- Trail Implementation Grants/Funding
- ADA Standards
- Lack of Trailheads/Facilities
- Dogs/Sanitation

Opportunities

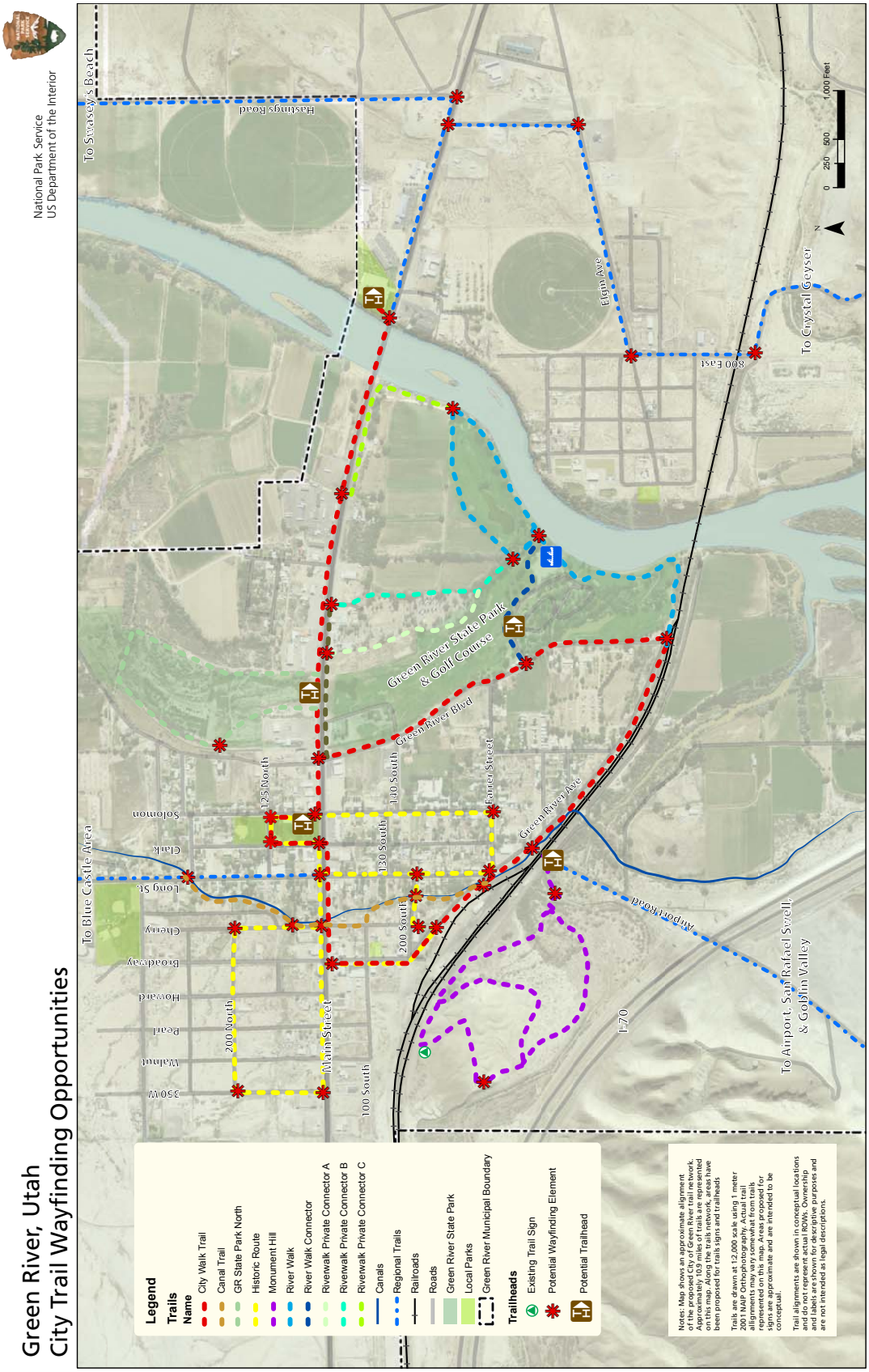
Several opportunities are provided by the creation of a trails network in Green River. This list is also considered dynamic and intended to grow over time, as more trails and planning take place in the future.

Opportunities identified include:

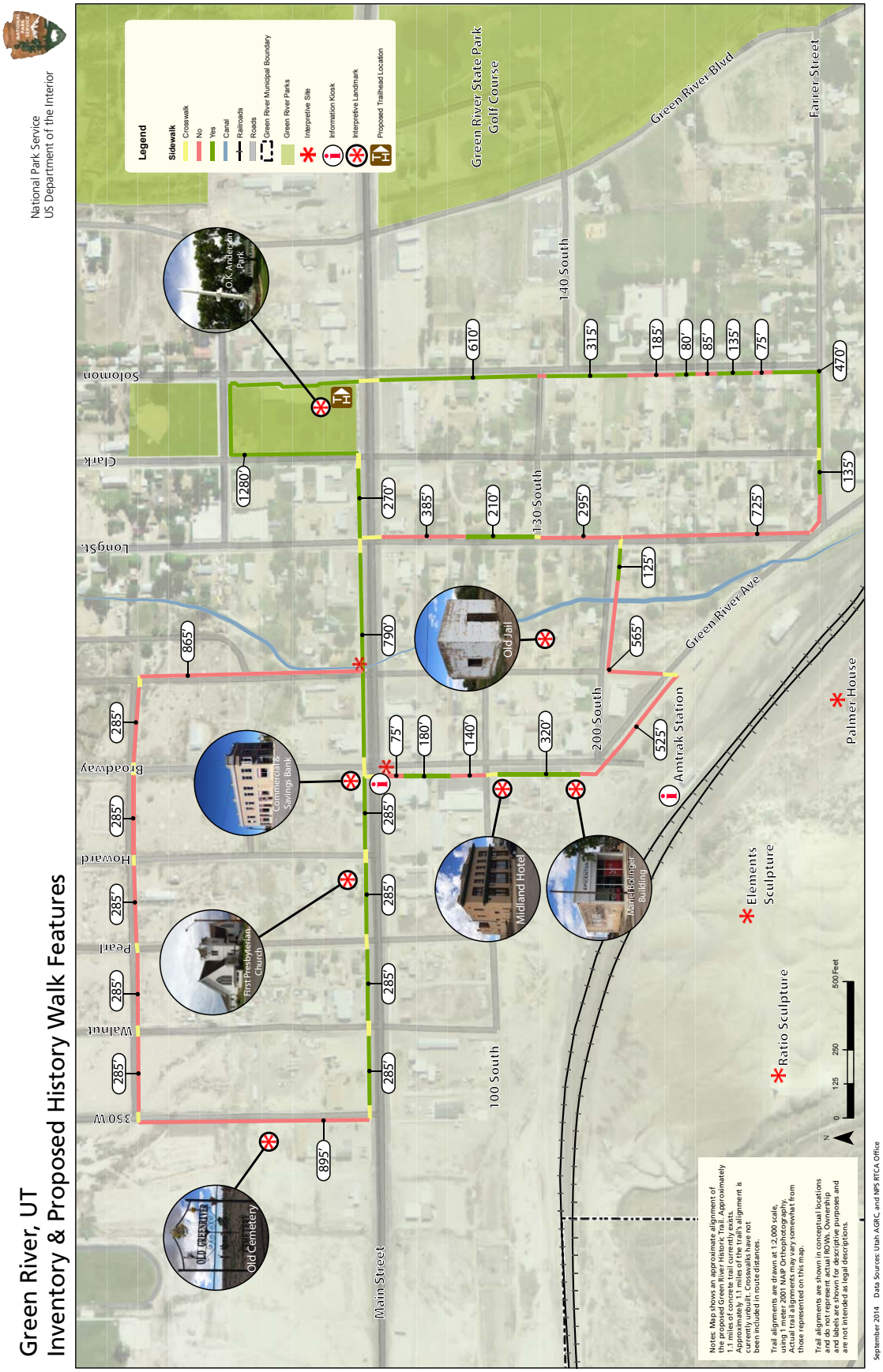
- Trail Maintenance Funding
  - The Green River City Council discussed and passed a $1,000/year funding contribution for trails maintenance. This amount has been matched by local business owners who have signed a letter agreeing to provide additional trail maintenance funding (see Appendix D).
- Visitors Will Stay Longer
- Economic Development
- Appreciation of Scenery
- Outdoor Education
- Health and Exercise Promotion
- Become a Regional Destination

City Trail Opportunities

Overview Map



History Walk



History Walk Trails

There are two primary elements that have been identified for the History Walk. The first element of the History Walk is the route itself, which is proposed as a system of concrete trails with existing sidewalks. Sections of the route have been identified on the map, with 1.1 miles of existing routes and 1.1 miles of undeveloped routes represented. It is recommended that the remaining 1.1 miles of trail be developed to the standards of currently completed sections, with all crosswalks signed and painted for user safety. An example of this route type can be found in Appendix E. A cost estimate* is provided below for a standard 4'-wide x 4" thick sidewalk on relatively flat land with loose soils, constructed by a licensed/bonded contractor.

Item	Buy Quantity	Low	High
Material (Ready-mix 5000psi concrete)	(5808x4) 23,232 sq. ft	$39,300	$50,200
Labor	810 hrs	$46,300	$59,800
Supplies, Tools		$11,800	$13,600
Total		$97,400	$123,600

* Cost estimate based on figures provided www.homewyse.com estimates

History Walk Interpretation

The second element of the History Walk is the installation of interpretive elements along the route. Three types of interpretive elements are proposed for the History Walk, including: Interpretive Sites, Interpretive Landmarks, and Interpretive Kiosks. Each sign type is proposed to contain different information that influences the user's experience. Examples of each sign type can be seen below. Some examples of potential content can be seen in Appendix F.

Interpretive Kiosk

The interpretive kiosks are recommended as places where people can stop for 5-10 minutes and gather information on Green River. Kiosks are recommended to have between 3-5 panels of information. One of these panels could be composed of way-finding information about the City's trail systems. Shade structures are recommended for these sites.

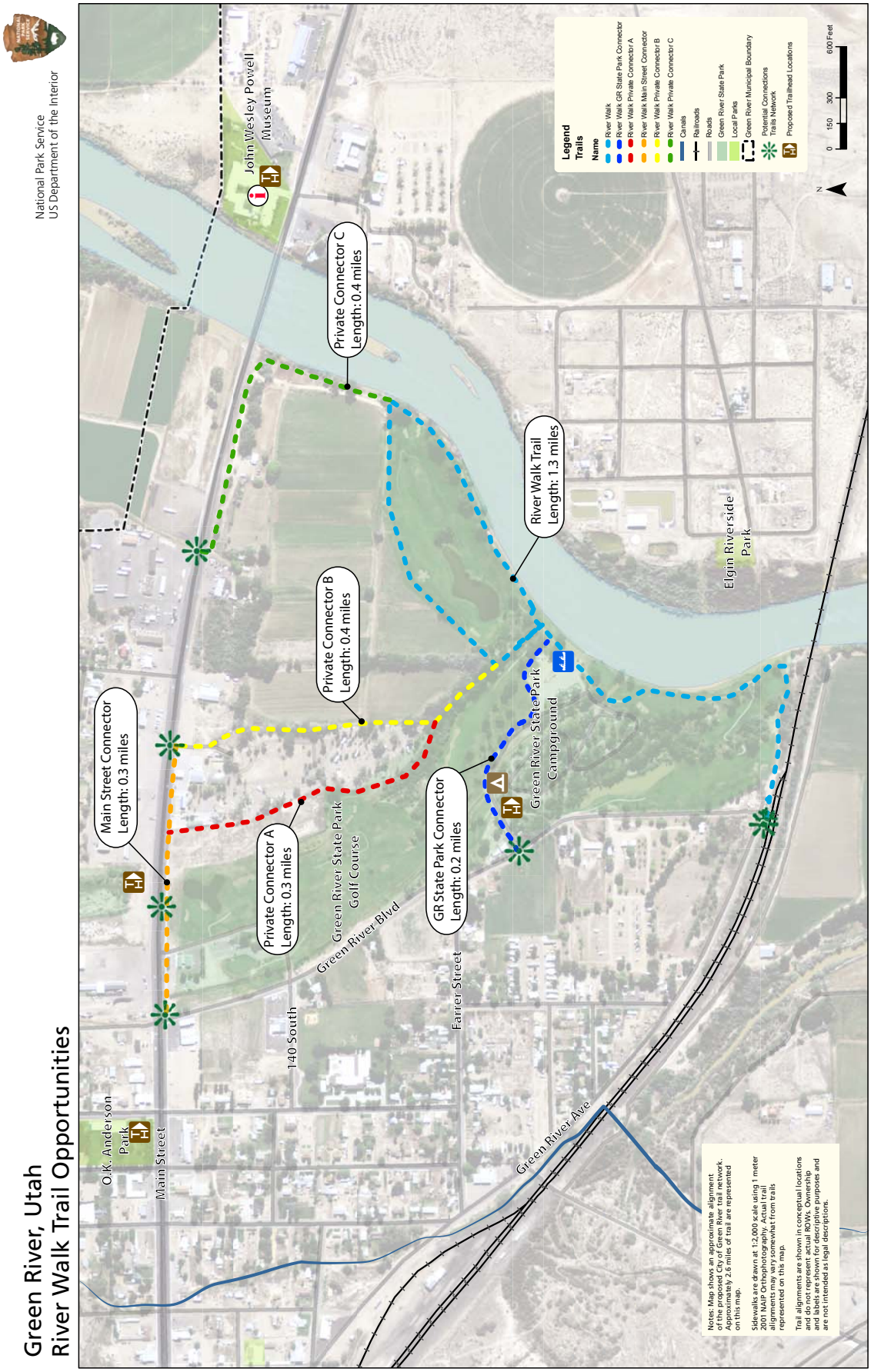
Interpretive Landmarks

Interpretive landmark signs are recommended for existing landmarks along the History Walk. Landmark interpretive signs are recommended to have information pertaining to the history of the landmarks and their relation to the City's history.

Interpretive Sites

Interpretive sites located along the History Walk are areas that have some significance in the history of Green River. Some sites still have a feature present (Green River Canal, Monument Hill), while other sites signify key places in the history of the City (Broadway, Palmer House). Interpretive signs are recommended to give the visitors understanding of past and present conditions.

River Walk


Green River, Utah
River Walk Trail Opportunities
National Park Service
US Department of the Interior
O.K. Anderson Park
Main Street
140 South
Green River Blvd
Farrer Street
Green River Ave
Green River State Park Golf Course
Green River State Park Campground
John Wesley Powell Museum
Elgin Riverside Park
Main Street Connector Length: 0.3 miles
Private Connector A Length: 0.3 miles
Private Connector B Length: 0.4 miles
Private Connector C Length: 0.4 miles
GR State Park Connector Length: 0.2 miles
River Walk Trail Length: 1.3 miles
Legend
Trails
Name
River Walk
River Walk GR State Park Connector
River Walk Private Connector A
River Walk Main Street Connector
River Walk Private Connector B
River Walk Private Connector C
Canals
Railroads
Roads
Green River State Park
Local Parks
Green River Municipal Boundary
Potential Connections Trails Network
Proposed Trailhead Locations
0 150 300 600 Feet
N
Notes: Map shows an approximate alignment of the proposed City of Green River trail network. Approximately 2.6 miles of trail are represented on this map.
Sidewalks are drawn at 1:2,000 scale using 1 meter 2001 NAIP Orthophotography. Actual trail alignments may vary somewhat from trails represented on this map.
Trail alignments are shown in conceptual locations and do not represent actual ROWs. Ownership and labels are shown for descriptive purposes and are not intended as legal descriptions.
October 2014
Data Sources: Utah AGRC, and NPS RTCA Office

River Walk Considerations

The proposed River Walk has significant support from the citizens of Green River and the Trail Committee. The results of the Green River General Plan Survey showed that over 60% of residents polled are interested in trails and a river walk (Appendix B). Results from the Trails Open House survey also showed that 28 of 32 respondents thought it was important to connect trails to the waterfront of the Green River (Appendix A). The Trails Committee also voted the River Walk and History Walk as the highest priority trails in Green River. Despite this widespread support for the River Walk, the trail poses several challenges that must be overcome before its implementation. Challenges include:

- **Private Land Ownership:** There are three potential trail connections to the River Walk that cross private land. A trail easement could be obtained from private land owners to determine which connection route from Main Street to the Green River State Park portion of the trail could be used.
- **Green River State Park:** A formal agreement with Green River State Park will need to be secured prior to trail implementation to insure that maintenance and trail construction costs can be provided by the State Park and the City. Precise routing of the trail through the park will also have to be approved by the State Park. It is recommended the trail routing process include the Golf Course Superintendent, and Forestry, Fire and Sovereign Lands.
- **Green River State Park Golf Course:** A large portion of the proposed River Walk will be adjacent to the Green River and have to run adjacent to holes 6, 5, 4, 3, and 2. Impacts to holes 6, 5, and 4 in particular will need to be addressed.
- **Green River State Park Campground:** A connection from Green River Boulevard to the River Walk will pass through the Green River State Park Campground. Fees and regulations associated with use of the trail will need to be determined, along with the trail's alignment through the campground.

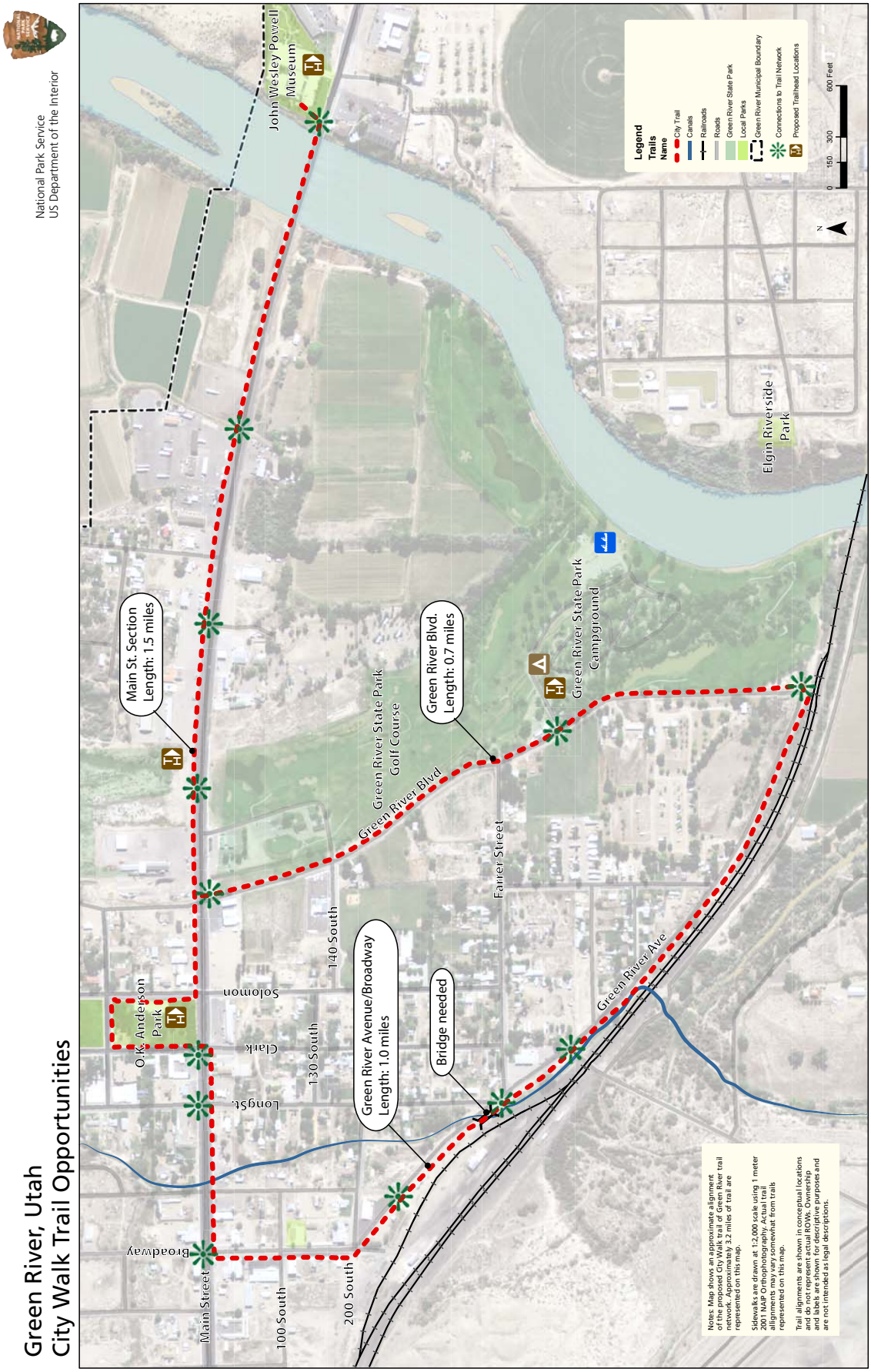
Once these key issues involving the River Walk are resolved, securing funding, trail routing, and trail implementation can be more seriously discussed. Estimates of trails are based on an 8-foot- wide crushed aggregate trail and are provided below. They do not take into account any alterations involving golf course or campground infrastructure.

Cost Estimates for 10'-wide Crushed Aggregate Trail *

Trail Name	Distance	Low	High	Potential Extra Costs
River Walk & State Park CG	1.6 miles	$132,000	$200,000	Golf course, state park campground
River Walk & Private A	1.7 miles	$145,000	$213,000	Fencing, golf course, state park campground
River Walk & Private B	1.7 miles	$145,000	$213,000	Fencing, golf course, state park campground
River Walk & Private C	1.7 miles	$145,000	$213,000	Fencing, golf course, state park campground
River Walk	1.3 miles	$110,000	$163,000	Golf course impacts, state park campground
Main Street Connector (4' concrete walk)	0.125 miles	$13,000	$17,000	Main Street improvements

* Based on estimates from www.railstotrails.org, homewyse.com, and thisoldhouse.com; estimates may not be accurate for the region and should be vetted by talking to a local contractor.

City Walk


Green River, Utah
City Walk Trail Opportunities
National Park Service
US Department of the Interior
Main St. Section
Length: 1.5 miles
Green River Avenue/Broadway
Length: 1.0 miles
Bridge needed
Green River Blvd.
Length: 0.7 miles
Broadway
Main Street
100 South
200 South
O.K. Anderson Park
Long St.
Clark
Solomon
130 South
140 South
Green River State Park
Golf Course
Green River Blvd
Farrer Street
Green River State Park
Campground
Green River Ave
John Wesley Powell
Museum
Elgin Riverside
Park
Legend
Trails
Name
City Trail
Canals
Railroads
Roads
Green River State Park
Local Parks
Green River Municipal Boundary
Connections to Trail Network
Proposed Trailhead Locations
0
150
300
600 Feet
N
Notes: Map shows an approximate alignment of the proposed City Walk trail of Green River trail network. Approximately 3.2 miles of trail are represented on this map.
Sidewalks are drawn at 1:2,000 scale using 1 meter 2001 NAIP Orthophotography. Actual trail alignments may vary somewhat from trails represented on this map.
Trail alignments are shown in conceptual locations and do not represent actual ROWs. Ownership and labels are shown for descriptive purposes and are not intended as legal descriptions.
October 2014
Data Sources: Utah AGRC, and NPS RTCA Office

City Walk Considerations

The City Walk Trail has been identified as a route that could link key features of the City with other proposed trails. This route has been developed from information gathered during the course of the Green River trails planning effort. From the Trails Open House, it was determined that many participants desired trails with lengths over two miles. Moreover, several sites, such as the Green River State Park, John Wesley Powell Museum, Main Street, and several other features were identified to connect with trails. This route connects most of these features, especially when combined with other trail opportunities identified in this plan. As with other trail routes presented in this plan, several issues need to be resolved before this route can be secured and implemented.

The next steps before implementation of this trail include:

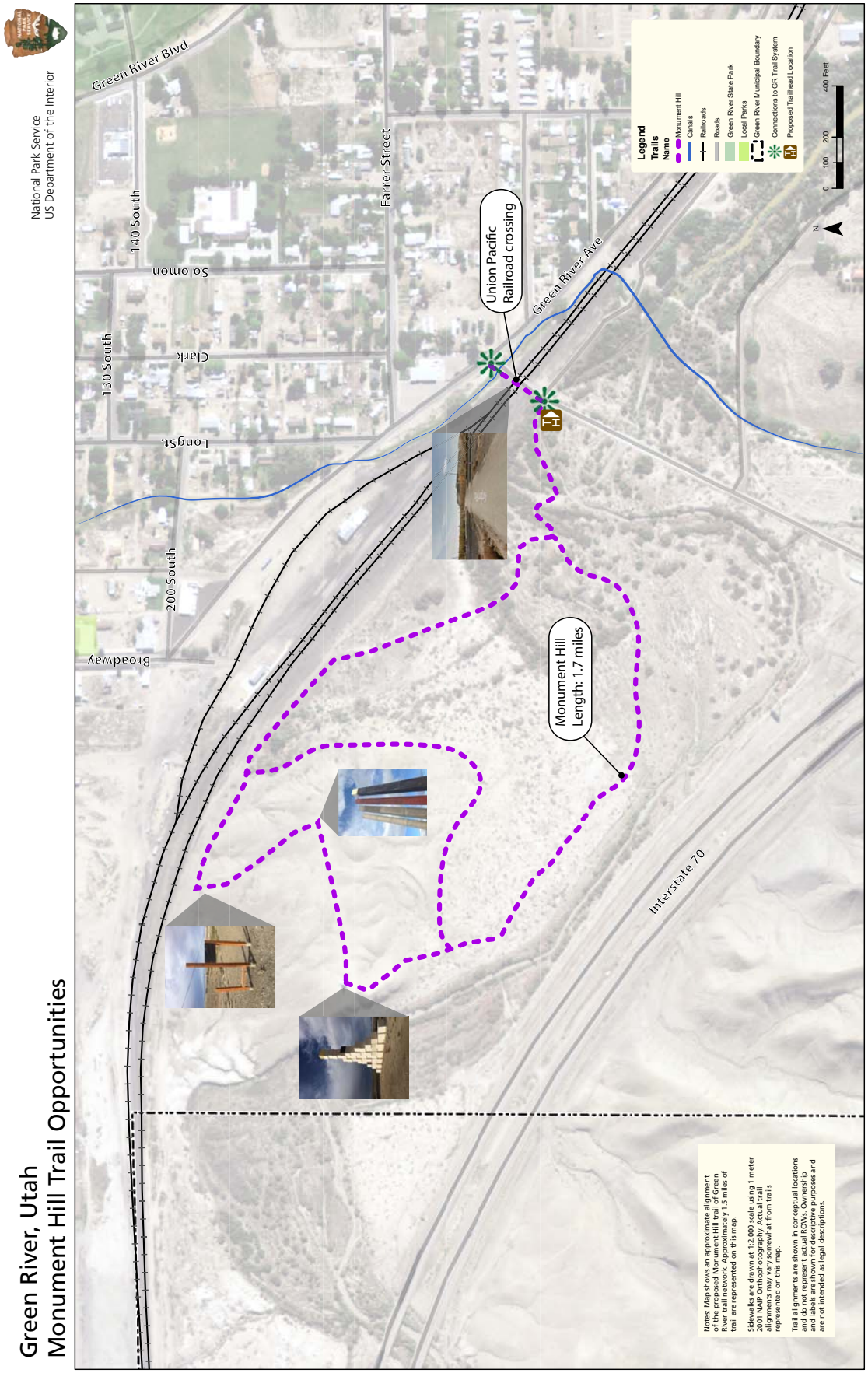
- **Green River Canal Company:** Attain a trail easement from the Green River Canal Company involving trail sections along Green River Avenue.
- **Union Pacific Railroad Company:** Attain a trail easement from the Union Pacific Railroad company for the portion of trail adjacent to the Denver-Rio Grande railroad line and Green River Avenue.
- **Green River State Park:** Attain a trail easement from Green River State Park for the portion of trail running adjacent to Green River Boulevard, and for portions of trail that cross the Green River State Park Golf Course.
- **Utah Department of Transportation (UDOT):** Consult with UDOT and have them update their plans to show the trail crossings on Main Street and interactions of the trail with the Main Street UDOT Right-of-Way (ROW). Also consult with UDOT about an at-grade crossing on Airport Road.

Trail Cost Estimates*

Trail Segment	Distance	Cost-Low	Cost-High
Main Street (4' wide sidewalk)	0.5 miles concrete (of 1.5 total miles)	$53,000	$68,000
Green River Ave (10' wide trail)	205 linear feet concrete trail 1.0 miles asphalt 1.0 miles aggregate	$4,000 $185,000 $85,000	$6,000 $315,000 $125,000
Green River Blvd (10' wide trail)	0.7 miles asphalt 0.7 miles aggregate	$130,000 $60,000	$220, 000 $88,000

* Based on estimates from www.railstotrails.org, homewyse.com, and thisoldhouse.com; estimates may not be accurate for the region and should be confirmed by talking to a local contractor.

Monument Hill



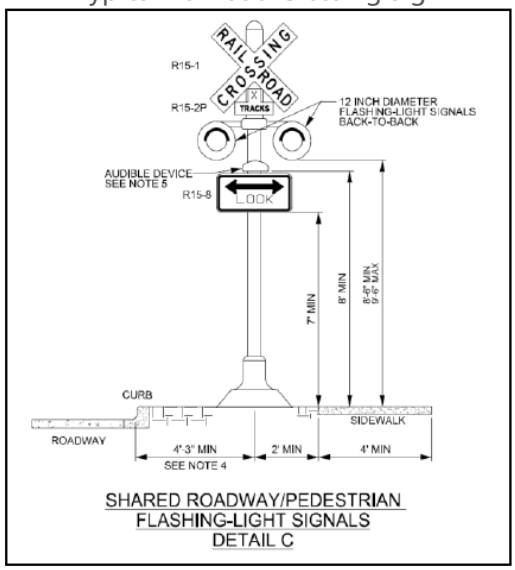
Monument Hill Considerations

The Monument Hill Trail is an established two-track trail route in Green River. The trail route is currently accessible to motorized travel, although it is not intended as a motorized trail. This route is focused around the two sculptures, "Ratio" and "Elements," which were both commissioned by the private land owner of the property where the sculptures and the majority of the trail is located. Another portion of the trail runs through land owned by UDOT. A third private land owner also holds land involved with this trail. Lastly, an area near the trail's intersection with Airport Road is owned by Green River City. Despite the established nature of this trail it is recommended that a few things are addressed:

- **Union Pacific Railroad Company:** The City needs to obtain a Right-of-Way (ROW) from Union Pacific involving the at-grade crossing on Airport Road and for any portion of the trail within the Denver-Rio Grande railroad ROW.
- **UDOT:** A trail easement needs to be obtained from UDOT for the portion of trail crossing UDOT land near Monument Hill and I-70. UDOT will also need to be consulted regarding the at-grade crossing on Airport Road and with construction of a trailhead for this route. It is recommended that UDOT construct the crossing.
- **Private Ownership:** Currently, this trail crosses two parcels of privately owned property. The City should pursue a trail easement for the Monument Hill Trail. The City is currently negotiating with one private land owner the acquisition of a large part of the Monument Hill property, including the area containing the monuments.
- **Maintenance Plan:** A formal trail maintenance plan should be established. It is recommended this plan is reevaluated as use increases on the trail.
- **Trailhead Creation:** It is recommended that a trailhead for the site be established outside of the arroyo on a portion of land owned by the City of Green River. A kiosk owned by the John Wesley Powell Museum is available for refurbishment and installation at the future trailhead.
- **Trail's Interaction with Arroyo:** The trail's interaction with an arroyo that runs near and intersects with the route needs to be evaluated to determine the long term effect of the arroyo on the trail and its users. Sections impacted significantly by the arroyo should be realigned appropriately to reduce trail impacts and risk to trail users.

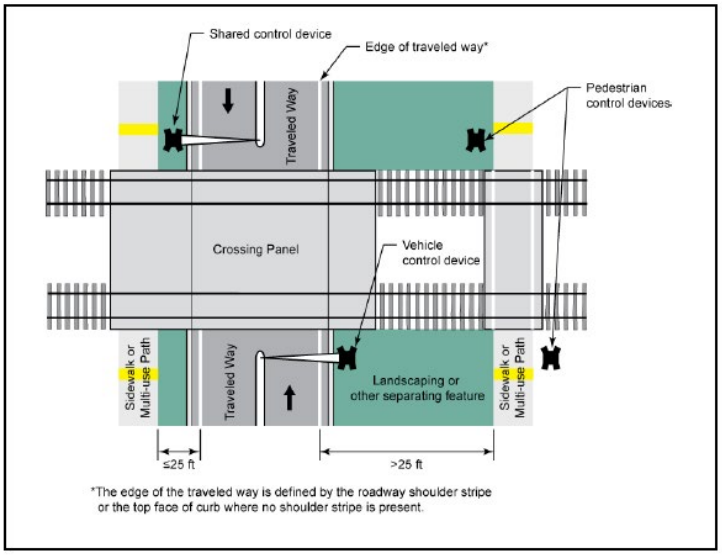
At-Grade Crossing Design Considerations

Typical Railroad Crossing Sign



Courtesy: UDOT Pedestrian Grade Crossing Manual, 2013.

Typical Railroad Crossing with Trails



Courtesy: UDOT Pedestrian Grade Crossing Manual, 2013.

Canal Trail

Green River, Utah
Canal Trail Opportunity

National Park Service
US Department of the Interior

December 2014 Data Sources: Utah AGRC, and NPS RTCA Office

Canal Trail Considerations

The Green River Canal is a historic aspect of the City, having provided water to local farmers since early settlement. Currently, the canal is administered by the Green River Canal Company, and is overseen by the Green River Conservation District. During the Trails Open House, and subsequent Trails Committee meetings, the canal was discussed as a possible trail opportunity in the City. The route proposed in this document would share the current maintenance road within the canal's easement. Because of the use of this easement, which is already driven on every year for canal maintenance, implementation of a trail on the canal may be easier than other trails. It is recommended that the designation of the Canal Trail benefit the maintenance of the canal and its easement. This might be accomplished through the creation of a volunteer trail user group, which dedicates time every year to cleaning and maintaining the Canal Trail and its corridor. Several issues will need to be addressed before implementation of the Canal Trail can begin, including:

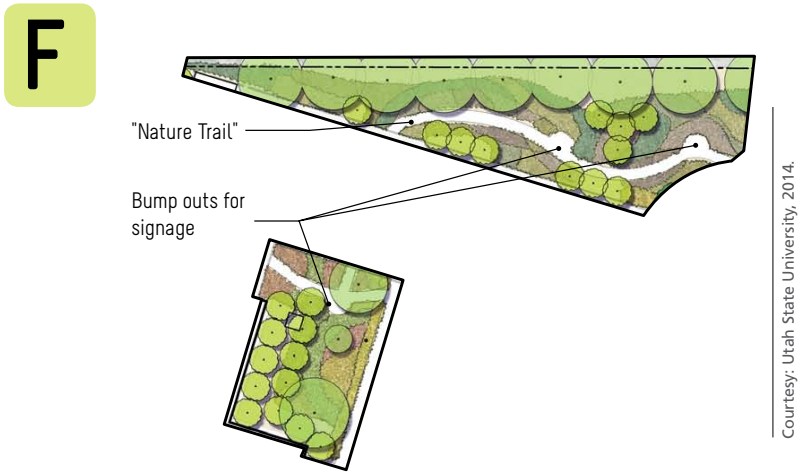
- **Trail Agreement with Green River Canal Company:** An trail easement agreement with the Green River Canal Company is needed, so that use of the canal service road and easement is allowable and amenable to those who hold water rights associated with the canal.
- **Potential Easement near 100 South Cherry Street:** The canal does not have a clear connection to Main Street, as it emerges from an underground culvert behind a local business. An easement with the local landowner, or a divergence from the canal at its intersection with 200 South will be required. There may also be an easement to the west of the canal near 100 South that should be explored as a potential solution.

- **Negotiate Main Street Crossing:** The canal crosses Main Street near Cherry Street. As this is the most busy, and wide street in Green River, some degree of safety in the form of a crosswalk is likely needed here. A crosswalk will need to be discussed with UDOT representatives responsible for the Green River jurisdiction.
- **Engage Property Owners Adjacent to Canal Easement:** The canal's current easement interacts with the private property owners. Often times, residential properties share a back boundary line with the canal. To alleviate any concerns with local residents and property owners, it is recommended that Green River Trail Committee members, Green River Canal Company representatives, and the City of Green River actively engage these property owners in an open dialogue about the potential implementation of a canal trail.

- **Canal Trail's Interaction with the City Walk Trail and UP Easement:** The proposed Canal Trail alignment intersects the City Walk Trail after it crosses Green River Avenue to the south. This is a key intersection as users will continue along the canal to the east by using the City Walk trail. This area currently interacts with the Union Pacific Denver- Rio Grande rail line and its easement. This interaction will need to be discussed with UP to determine whether a trail easement is needed in this area.

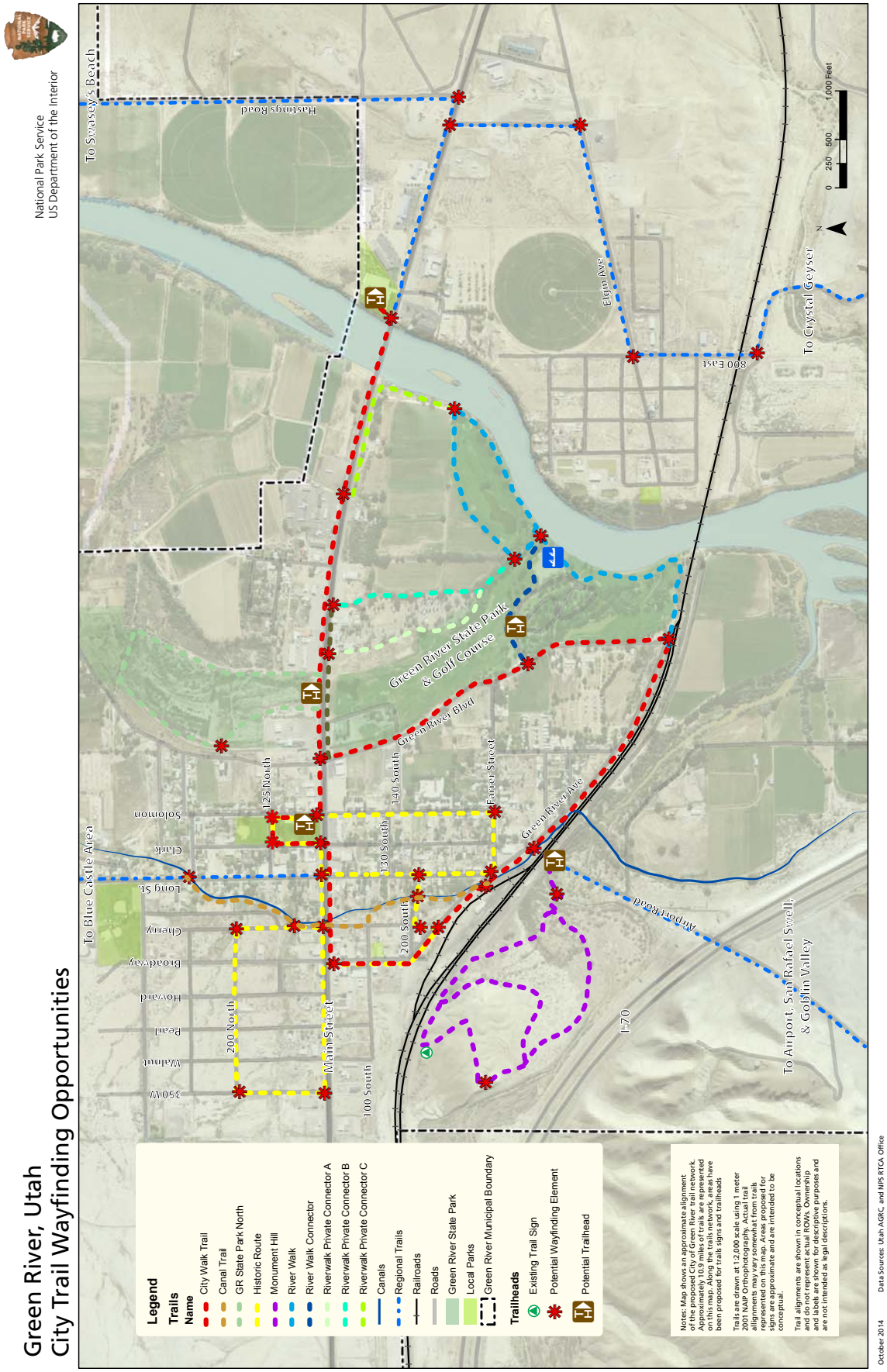
John Wesley Powell Museum Landscape Plan

During 2013, the Landscape Architecture and Environmental Planning Department of Utah State University (USU) was asked by the John Wesley Powell (JWP) Museum for a Landscape Design Plan (Appendix C). USU completed a plan for the JWP Museum that included a network of short trails, along with locations to connect to future trails. Of particular interest, Phase F of the plan details a nature trail on a portion of the JWP Museum property. This nature trail includes interpretive signing opportunities throughout the property. Several suggestions for topics to sign are included as well, such as the history of the Green River and its surrounding landscape and landmarks. It is recommended that any interpretive facilities at the JWP Museum are coordinated with themes from the History Walk.



Courtesy: Utah State University, 2014.

City Trailheads & Way-finding



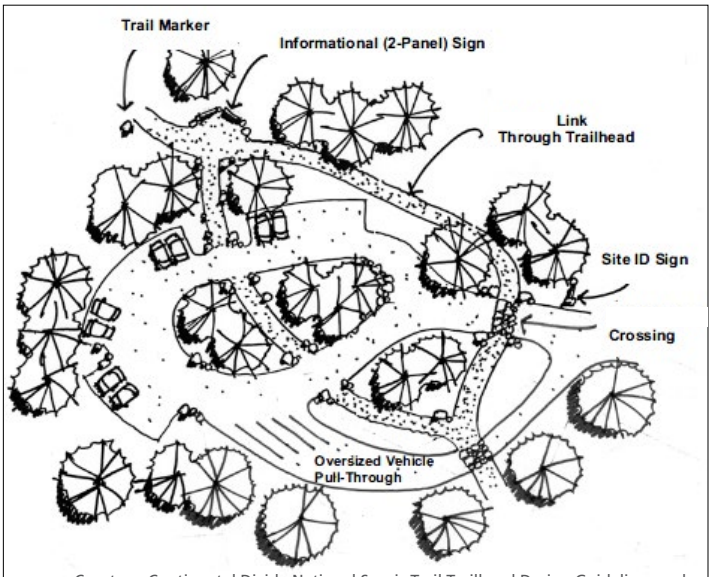
City Trailhead Design Considerations

Several areas have been identified as potential trailhead locations within Green River. These areas will each serve different visitors and uses associated with the Green River Trails System. Locations are based on their proximity to trails, and proximity to land owned by a public entity. It is recommended that city, county, state, or federal property be used for trailheads. These areas will need various types of trailheads to deal with the variety of use and visitors of each site. Below are examples of trailhead types and their elements (Adapted from: Continental Divide National Scenic Trail Trailhead Design Guidelines, n.d.).

Level I Elements

- Entry/Exit Roads
- Auto Parking
- Oversized Vehicle Parking
- Pedestrian Circulation
- Trailhead Sign at Entry
- ADA Accessibility
- Landscape Plantings
- Seating and Shade Structures
- Fencing
- Grading
- Bicycle Racks
- Lighting
- Information/Orientation Kiosk
- Interpretive Signs
- Orientation Signs
- Trail Signs
- Waste Receptacles
- Toilets (optional)

Level I Trailhead

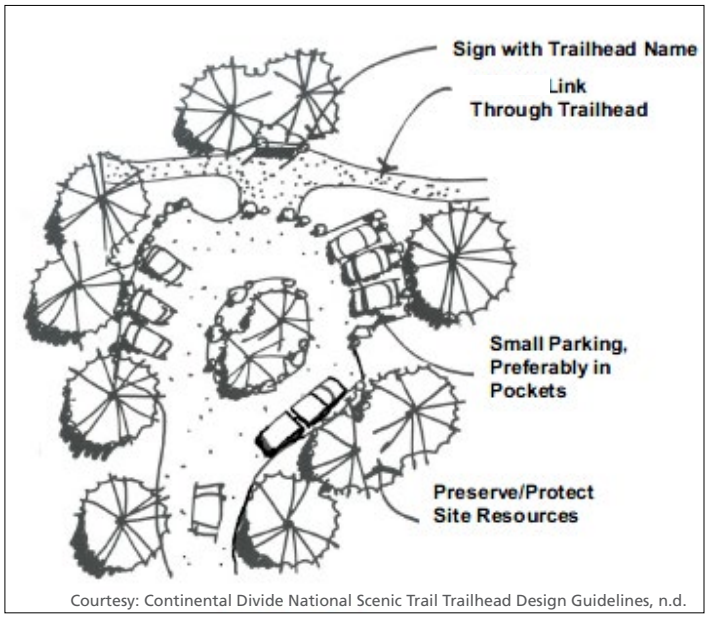


Courtesy: Continental Divide National Scenic Trail Trailhead Design Guidelines, n.d..

Level II Elements

- Entry/Exit Roads
- Trailhead Sign at Entry
- Auto Parking
- Oversized Vehicle Parking (informal)
- Grading
- ADA Accessibility
- Trail Signs
- Information/Orientation Kiosk
- Landscape Plantings (optional)
- Seating (optional)

Level II Trailhead

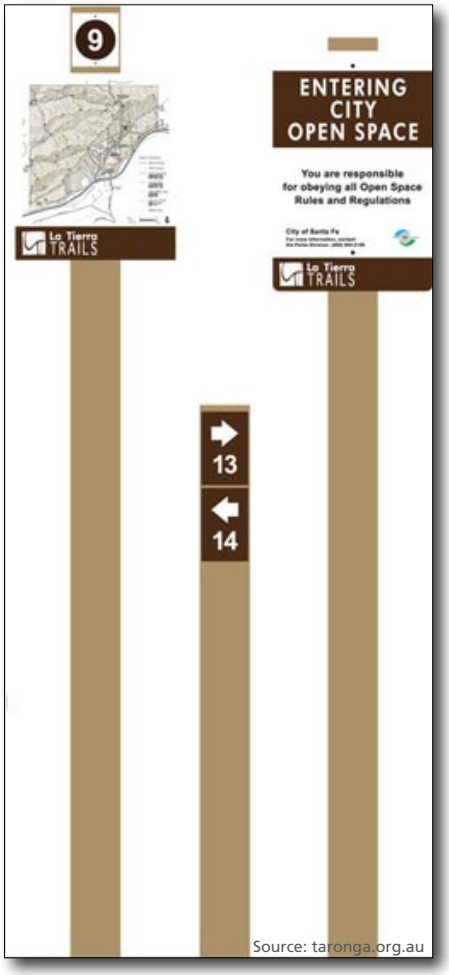


Courtesy: Continental Divide National Scenic Trail Trailhead Design Guidelines, n.d.

City Wayfinding Design Considerations

In addition to providing trailheads for the trails system, it is recommended that wayfinding signage be provided throughout the trail system. Areas recommended for signage have been identified based on trail intersections, along with places where trail alignments suddenly change direction. Forty-three locations have been identified for signage. Of these locations, trail and street intersections are the most important areas to sign, followed by areas where the trail changes sudden direction. The City trail logo should appear on all signs.

For basic way-finding and signage, it is recommended that a minimum of three different signs are provided throughout the trail system. These three styles of signs are informational signs, warning signs, and regulatory signs (Flink, Olka, & Searns, 2001).



Source: taronga.org.au

- **Informational Signs-** These signs contain basic information about the trail, along with a basic map to help users orient themselves within the trail network and landscape. These signs are located at key intersections with other trails or primary streets where trail users may wish to stop for a moment before continuing the same route or a different route. Elements to include on orientation signs: a trail number, a map, the trail logo. Informational signs can also include information on local businesses and services located throughout town.

- **Warning Signs-** These signs provide information on any hazards associated with trails and provide safety information. These signs are generally located near intersections, bridges, crossing areas, and warn users of hazards including grade changes, traffic, and changing trail surfaces.

- **Regulatory Signs-** These signs provide general operational information on appropriate trail use and etiquette. Typically these signs include stop signs, yield signs, ROW signs, and appropriate use signs, and are placed within the trail system near starting points and areas needing traffic direction within the trail system. Elements to include on regulatory signs: rules, regulations, appropriate trail uses, trail etiquette, trail logo, trail number or name.

Several different styles of signs are available for use as informational, warning, and regulatory signs. A few examples are provided here, but others can be found online.

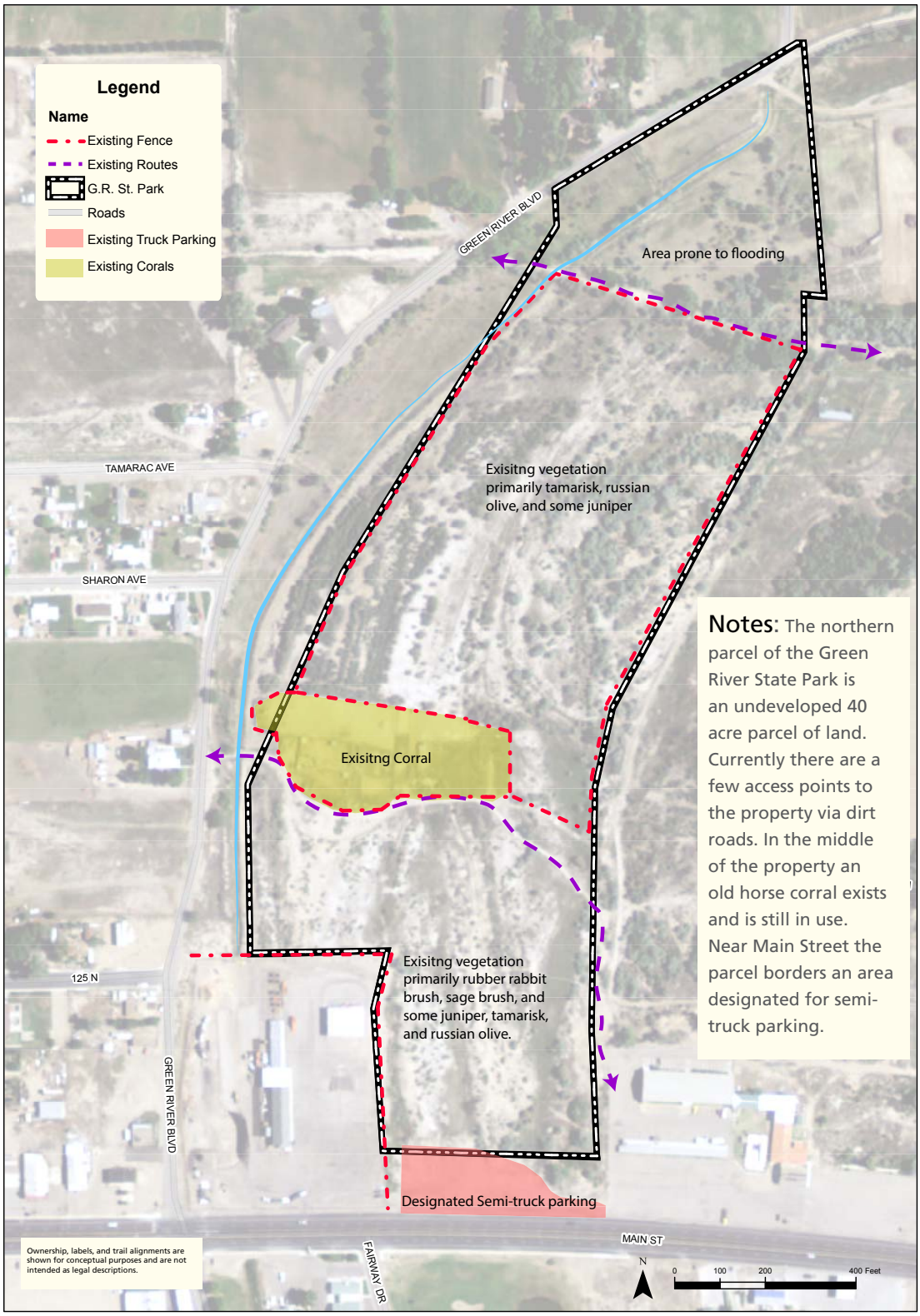
Source: www.designoffice.com

Green River State Park Administered Land- Northern Parcel

Overview

Green River, Utah
Green River State Park, Northern Parcel

National Park Service
US Department of the Interior



Notes: The northern parcel of the Green River State Park is an undeveloped 40 acre parcel of land. Currently there are a few access points to the property via dirt roads. In the middle of the property an old horse corral exists and is still in use. Near Main Street the parcel borders an area designated for semi-truck parking.

October 2014 Data Sources: Utah AGRC, and NPS RTCA Office

State Park Elements

During the planning process, several elements were identified to incorporate into the northern parcel of Green River State Park. Four primary elements included: trails for bikes, pedestrians, and equestrians; bike park; equestrian area; and a trailhead. Prior to the construction of these elements, it is recommended that a memorandum of understanding between the City of Green River and Utah State Parks be completed that details roles and maintenance of site features.

- **Trails-** It is recommended that the primary trails within the park are multiple-use trails. However, secondary trails could also be provided for individual uses, especially in the case of bicycle and equestrian use. The bike park is recommended to be connected by a bicycle trail to a parking area. This trail would include pedestrians, but not equestrian opportunities. The recommended trail surface type for state park trails is a compacted crushed aggregate that meets ADA standards. Trails will also likely require earthen fill from off site to provide proper drainage.

Source: www.americantrails.com

- **Bike Park**- A bike park is recommended for incorporation into the Park's northern parcel. It is recommended this area is separated from the equestrian area. Likely, fill material will need to be brought in to provide better stormwater drainage involving winter/spring precipitation and summer thunderstorms. The bike park's primary feature is recommended to be a pump track, which can be used by mountain bikes, BMX bikes, and other non-road bikes. The size of the site is recommended to encompass 1-2 acres of land within the parcel's boundaries.

Source: forums.mtbr.com

- **Equestrian Facilities**- Currently, the Park's northern parcel contains an area with six horse corrals and an arena. These facilities are currently leased. It is recommended that these facilities be refurbished and updated. The current corral/arena area could be connected to a trail for walking and riding horses. A simple shade structure could also be constructed to provide reprieve from the hot summer sun, as currently this area lacks trees to provide shade. Water currently exists on site.

Source: www.tourfactory.com

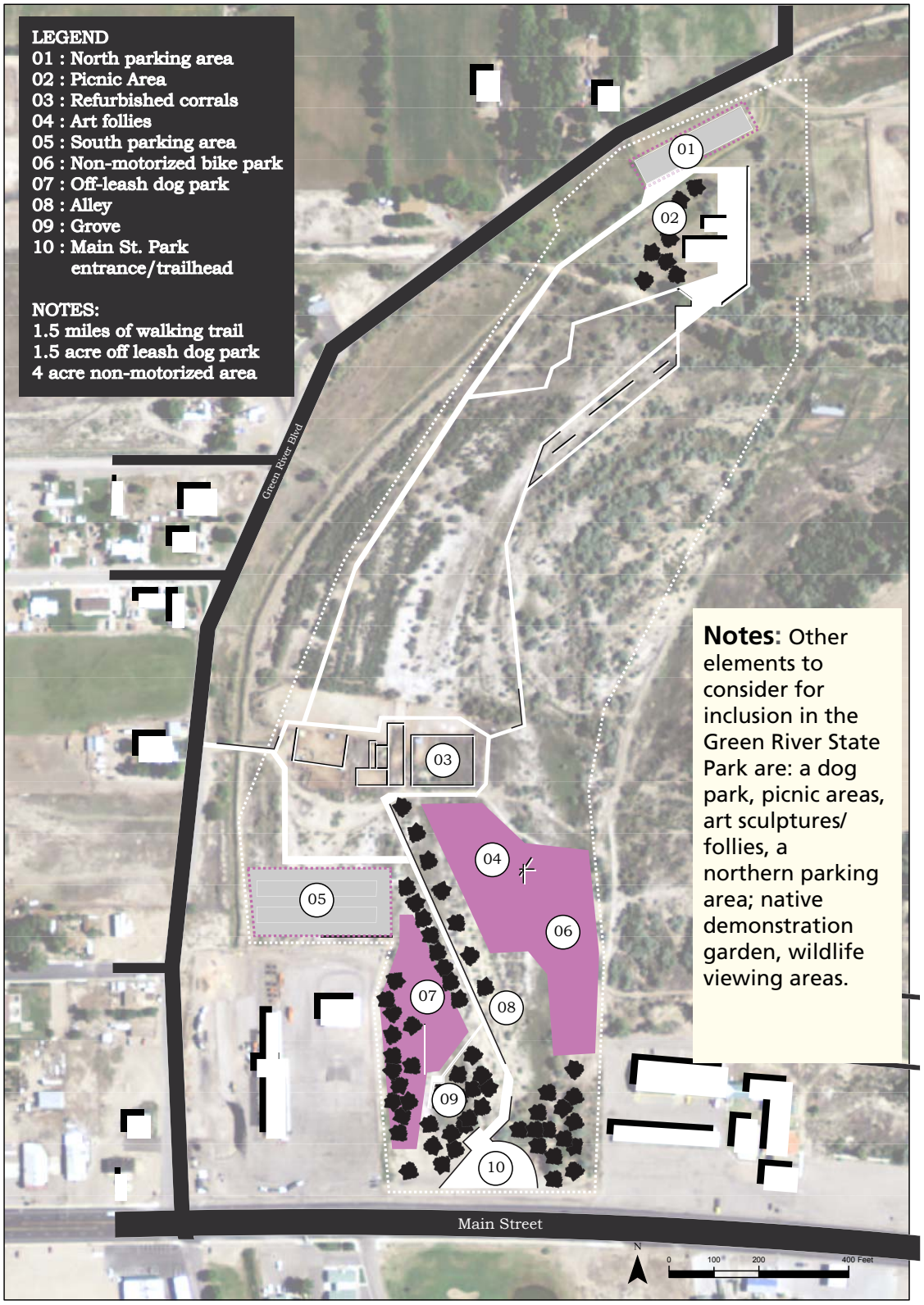
- **Trailhead Facilities-** The State Park parcel provides an opportunity to locate a trailhead bordering Main Street. It is recommended that an area providing semi-truck parking, along with some undeveloped land, be transitioned into a trailhead for the City trail network. Elements of this trailhead would incorporate Type I elements from this plan's trailhead section. Key elements include: parking for automobiles and larger vehicles, such as semi's or RVs, and a small restroom facility that could handle tour buses during the tourist seasons.

Source: www.fs.usda.gov

Other elements to consider for the State Park parcel include: additional parking, a dog park, picnic areas, demonstration gardens, art sculptures, and wildlife viewing areas.

Schematic Design

Green River, Utah
Green River State Park, Northern Parcel, Schematic Design by Epicenter



Notes: Other elements to consider for inclusion in the Green River State Park are: a dog park, picnic areas, art sculptures/ follies, a northern parking area; native demonstration garden, wildlife viewing areas.

October 2014 Data Sources: Epicenter, Utah AGRC, and NPS RTCA Office

Regional Routes & Destinations

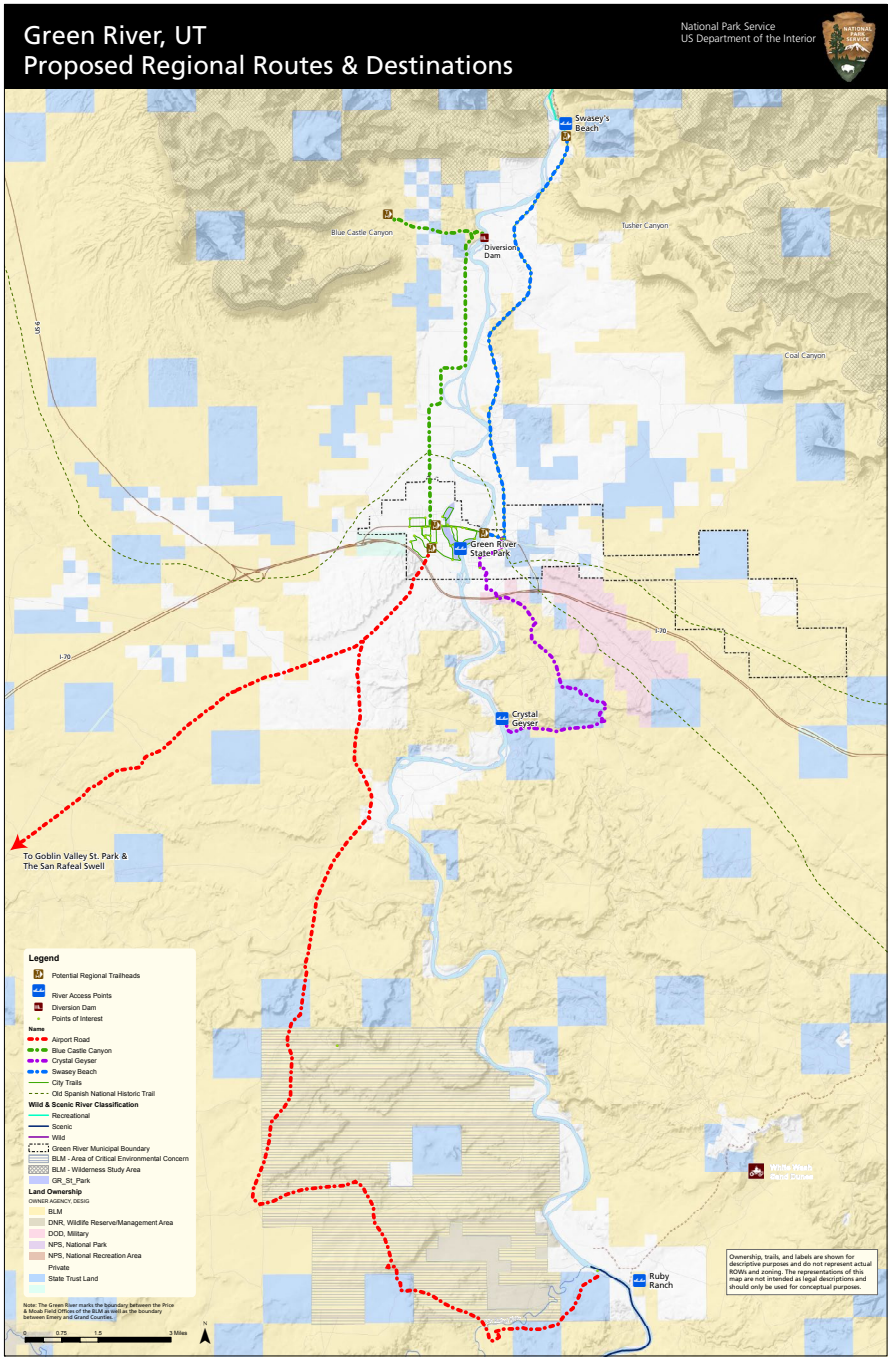
Overview

Several potential regional routes were identified during the planning process. These routes generally led to an area of interest in the greater region surrounding Green River.

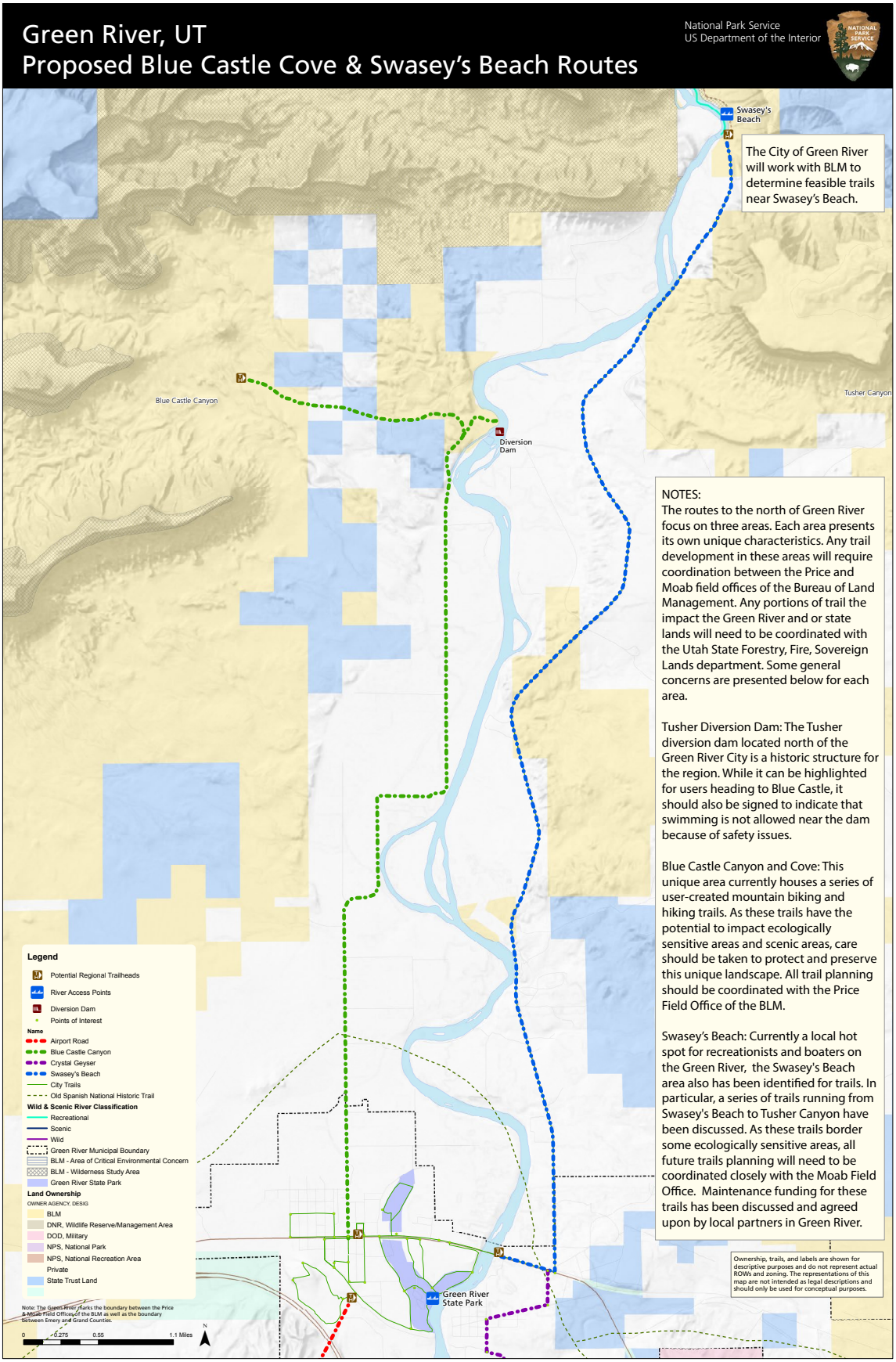
Destination areas that arose during the planning process included: Swasey's Beach, Blue Castle Cove, Saucer Basin, Crystal Geyser, and areas southwest of the City, such as the San Rafael Swell, San Rafael Reef, a boat ramp site across from the Ruby Ranch take-out/put-in, and Goblin Valley State Park.

Currently, these areas are considered attractions for visitors and a stronger connection to Green River is desired. This plan recommends that these routes be considered, and if found suitable, designated as bicycle touring routes, or simply as routes to reach a greater trail network.

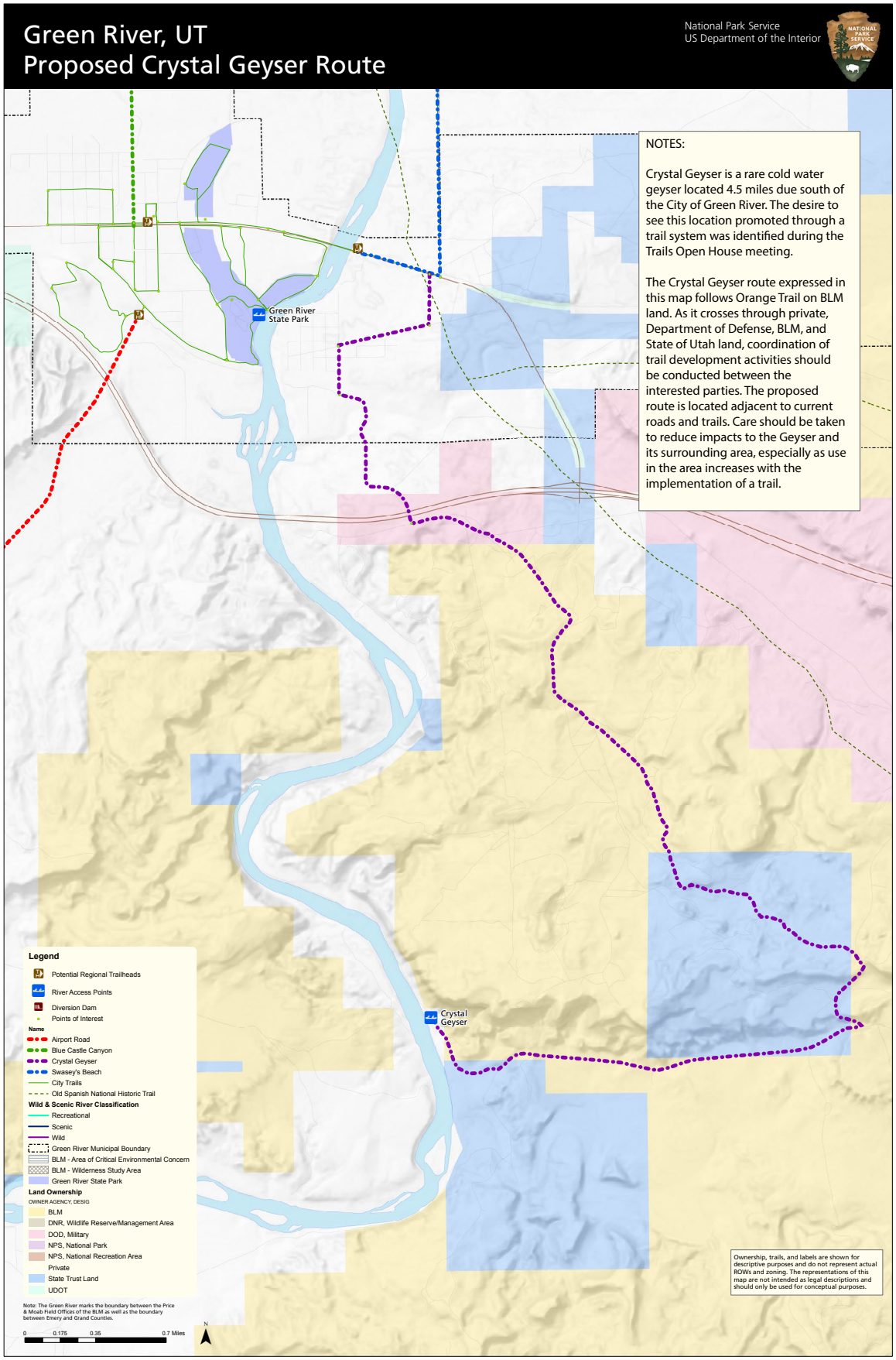
In the cases of Blue Castle Cove, San Rafael Reef/Swell, Saucer Basin, and Swasey's Beach, these areas were suggested for the development of future trails for mountain biking and hiking. As many of these locations and their surrounding areas are managed by Bureau of Land Management field offices in Price and Moab, it is recommended that the City of Green River work on fostering a strong relationship with both offices.



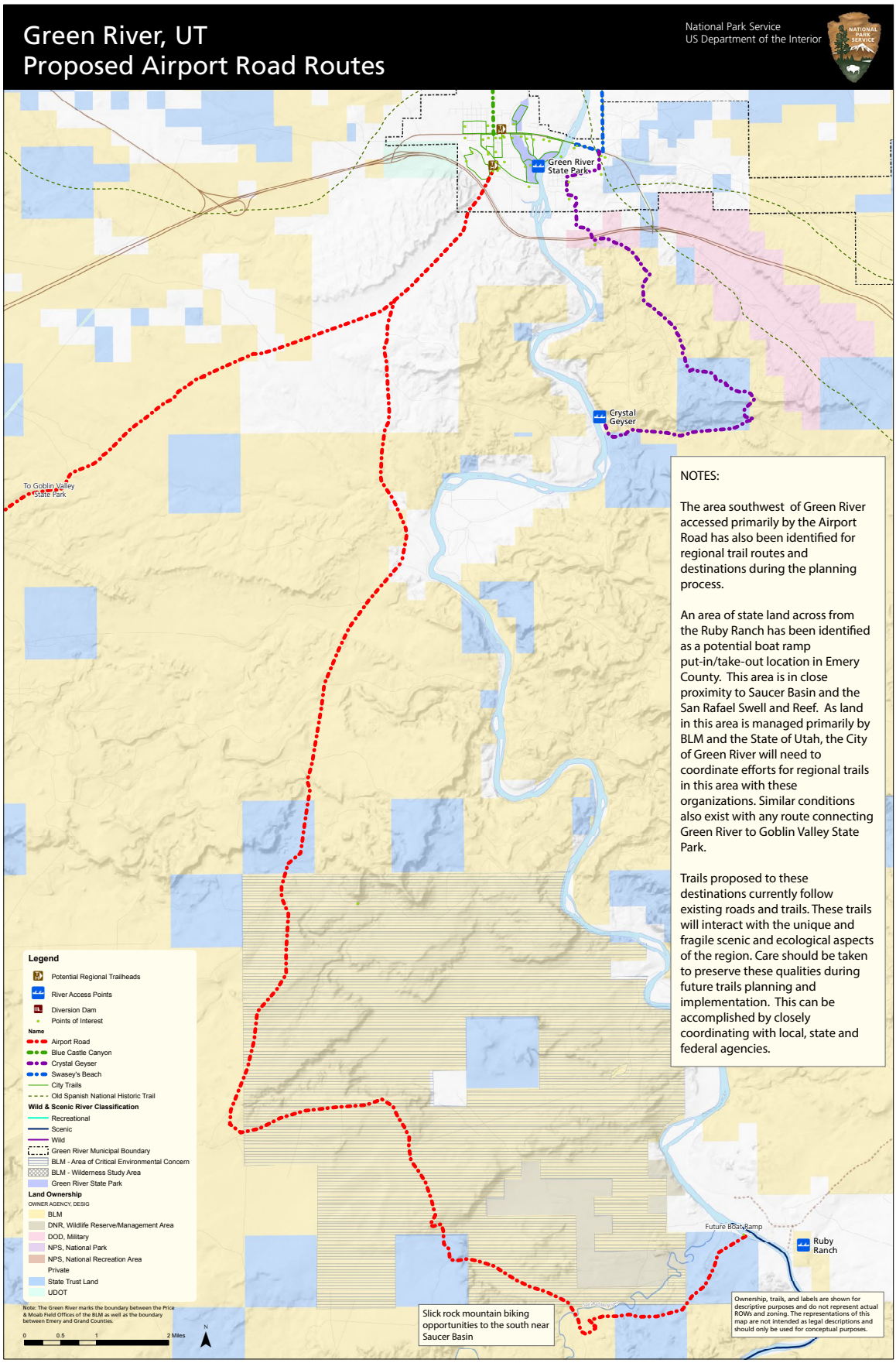
Swasey's Beach & Blue Castle Cove Trails & Trailheads



Crystal Geyser



Airport Road & Proposed Location of Future Emery County Boat Ramp



Recent Successes

Since the trail planning effort began in 2013, there have been some successes in implementing trails and places to relax and enjoy the natural surroundings of Green River, Utah. These successes have come through partnerships between Epicenter, a local non-profit, and their work to engage with partners. Partners engaging in trail work with Epicenter have thus far included: The University of Utah's College of Architecture & Planning, the John Wesley Powell Museum, and Colorado Outward Bound. Below is a description of work completed.

Epicenter & Partners: Moments of Pause

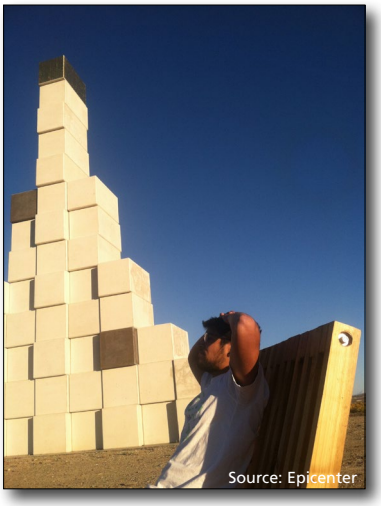
Benches and interventions by architectural students from the University of Utah (Fall 2013)

First-year architecture students from the University of Utah (U of U) College of Architecture + Planning installed their design/build group projects in Green River, Utah. These "benches" are the first tangible step of the future trails system and are a precursor to the Green River Trails System currently under development by the City of Green River. Once completed, the trails system will connect rural assets across, through, and surrounding Green River.

Source: Epicenter

This project marks another successful partnership between the U of U School of Architecture and Epicenter. Professors Mimi Locher, Erin Carraher, Darin Mano, Heber Slabbert and students Dan Teed and Steph Crabtree, along with Epicenter collaborated with many allied groups in the City of Green River to design and construct the Moments of Pause amenities.

Four student groups chose Monument Hill for the site of their projects. Wooden cubes, varying in size to affect perceptions of distance, were installed in a line between the two existing concrete land art sculptures, "Elements" and "Ratio." A second group marked a mile-long path around and up onto the hill, with exercise interventions every quarter mile. Framing views, a third group built square steel pipe sticks, that, when aligned, form a boundary around the sculptures. And, the last group designed what has become known as the "double-date bench," a place to sit back and watch a Green River sunset.


Source: Epicenter

Another student group chose the Crystal Geyser for their site. Concrete shapes interlock to make a multi-tiered seating area as you wait for the geyser to bubble.

North of town along the beach road near where the Green River exits Lower Grey Canyon, Goose Point provided a challenge during the design process for the students to capture an expansive overlook of the river while providing a site amenity. The resulting high-backed benches succeeded in providing a sense of protection and frame the view across the valley.

For the final U of U project, the site chosen was the John Wesley Powell River History Museum's riverfront. Often, visitors asked museum staff where they could access the river's edge. In response, students cleared the embankment and installed three platforms, each representing a historic flood level. A few months later, a volunteer group from Colorado Outward Bound built a primitive trail from the existing sidewalk to the platforms.

Source: Epicenter

Source: Epicenter

Source: Epicenter

Source: Epicenter

Prioritizing Trails

The trails identified in this plan were prioritized by the Green River Trails Committee after the Trails Open House. Trails identified throughout the planning process, including trails identified during the Trails Open House, were the options used during the prioritization process. Trails were prioritized as follows:

Prioritized City Trails

1) History Walk & River Walk
2) Green River State Park (North and South)
3) Monument Hill

Prioritized Regional Trails

1) Swasey's Beach Trails (BLM Moab), Airport Road, North Long Street
2) Blue Castle Cove Trails (BLM Price)

Trail Committee also discussed:

1) Saucer Basin (BLM Price)

Next Steps

Trails Planning and Implementation Steps

Using this plan, several steps can be taken to ensure the successful implementation of trails in Green River. These "next steps" are intended as starting points to ensure trails planning is transformed into trails implementation. This list will need to be reevaluated and new steps added periodically. It is recommended the following steps be pursued immediately:

Next Steps		
Task/Need	**Person Responsible**	**Target Completion Date**
Develop and Adopt Trail/Pathway Standards	Epicenter	December 15, 2014
Pass City Funding for Trail Construction and Maintenance	Penney Riches & Keith Brady	November 14, 2014
Obtain Agreement from Local Business Owners for Trail Funding	Keith Brady & Penney Riches	November 14, 2014
Complete an Agreement with Moab BLM for Trail Construction and Maintenance	Tim Glenn & Joshua Rowley	May 2015
Complete an Agreement with Price BLM for Trail Construction and Maintenance	Lamar Guymon & Epicenter	Summer 2015
Complete Agreement with Green River State Park/Utah State Park for Allowing Trails on State Park Land	Karen Smith & Epicenter	May 2015
Apply for Tree USA Grant through Forestry, Fire, and Sovereign Lands, if accepted apply again for Community Forestry Grant	Karen Smith	December 2014 September 2015
Complete Agreement with Union Pacific for At-Grade Crossing on Airport Road and Easement for Sections of Monument Hill Trail	Karen Smith	March 2015
Complete Agreement with Green River Canal Company for Trail Easement Along Green River Avenue	Karen Smith	March 2015
Update Student Neighborhood Access Program (SNAP) Plan to Reflect Gaps in Sidewalk trails (Appendix G)	Karen Smith & Jim Chandler	ASAP
Apply for Safe Routes to School Grant Funding for Missing Sidewalks	Karen Smith	When RFP released in 2015
Apply for Grants for Trail Implementation Based on Prioritized Trails	Epicenter & Karen Smith	As Available, On Going
Complete Agreement with Private Landowners on any Section of Trail that Crosses Private Land	Karen Smith	Ongoing
Consult with UDOT on New Trails and Add Trails to UDOT Plans	Kathy Ryan & Jim Chandler	May 2015
Complete Agreement with Utah State Sovereign Lands for river trail	Green River State Park & Karen Smith	Summer 2015
Complete Agreement with Utah State Sovereign Lands for San Rafael Boat Ramp	Emery County	2015 or 2016
Complete a Main Street Beautification Plan with Consultant , possibly Utah State LAEP Dept.	Karen Smith	2015 or 2016

Grant Funding

Applicable Federal, State, and Non-profit/Foundational Grants

Federal Grants			
Name	**Federal Lands Access Program (FLAP)**	**Surface Transportation Program (STP) (under MAP-21)**	**Transportation Alternatives Program (TAP) (under MAP-21)**
Program Purpose	To improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands	Provides funds for projects or activities that improve surface transportation, including pedestrian and bicycle infrastructure	Provides funds for projects or activities related to surface transportation alternatives
Eligible Infrastructure	Transportation planning, engineering, preventive maintenance, rehabilitation, restoration, construction, and reconstruction of Federal Lands Access Transportation Facilities; operation and maintenance of transit facilities; and provisions for pedestrians and bicycles	Bicycle transportation facilities, pedestrian walkways, and recreational trails	Construction, planning, and design of ped/bike facilities; bike share programs, recreational trails, rail trails, turnouts & overlooks, safe routes to schools
Eligible Non-Infrastructure	Research; acquisition of necessary scenic easements and scenic or historic sites ; and environmental mitigation in or adjacent to Federal land to improve public safety and reduce vehicle-caused wildlife mortality while maintaining habitat connectivity	Environmental mitigation; noxious weed control; inspection of trails, tunnels, and bridges	Historic preservation of transportation facilities, vegetation management, environmental mitigation
Key Project Requirements	Projects providing access to Federal high-use recreation sites; and the project improves safety while improving access to a Federal facility	Not specified	Not specified
Process Timing	Applications due May 15	Varies	Varies
Local Match Required	6.77%	Can vary; up to 20%	Can vary; up to 20%
Contact	Bill Lawrence, UDOT billlawrence@utah.gov (801) 964-4468	Chris Potter, UDOT cpotter@utah.gov (801) 633-6255	Chris Potter, UDOT cpotter@utah.gov (801) 633-6255
Website	http://www.cflhd.gov/programs/flap/ut/	http://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:1395	http://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:1395
Funding Amount	$10,652,636 in Utah for FY 2013	Varies depending on federal funding & state allocation $81,137,116 in Utah for FY 2013	Varies depending on federal funding & state allocation $6,421,900 in Utah for FY 2013
Status	Active	Active	Active

State of Utah Grants							
Utah Forestry Fire & State Lands Community Forestry Grant	**Utah State Parks Recreational Trails Program**	**Utah Boater Access Grant**	**Land & Water Conservation Fund**	**Utah Rural Development Grant**	**Community Impact Board (CIB)**	**Community Development Block Grants (CDBG)**	**UDOT - Safe Routes to School**
To encourage the planting and maintenance of trees within municipalities and unincorporated communities	Provide grants for non-motorized and motorized trails	Provides grants for boat access facilities and outreach	Provides federal reimbursement grant program for the acquisition and/or development of public recreation areas	Assists economic development in rural areas (defined as counties with a population under 30K and an average annual household income under $60K)	Provides loans and/or grants to communities which may be socially or economically impacted by mineral resource development on federal lands	Provides grants to cities and towns of fewer than 50,000 in population and counties fewer than 200,000 people	To facilitate the planning, development, and implementation of projects to improve safety, and reduce traffic, fuel consumption, and air pollution near schools
Anywhere trees are being planted, maintained, or planned; see web site for more detailed information	Construction and maintenance of trails and facilities, staging areas, trailheads, restroom facilities, trail signing	Ramps, docks, breakwaters, access roads, bridges, restrooms, fish cleaning stations, lighting, trash receptacles, parking areas, camping areas, navigation aids	Ball fields, sports courts, spray parks, golf courses, public restrooms, swimming pools, skate parks, walking trails, land acquisition for recreation	Not specified	Planning, construction and maintenance of public facilities	Park improvements, curb cuts, sidewalks	Within 2 miles of school: new sidewalks, off-street bike/ped facilities, pavement markings, connections between locations, bike parking facilities, traffic calming, installing school related signs
Tools, nursery structures, computers and irrigation computers, play structures or equipment	Acquisition of easements, educational programs to promote safety and environmental protection	Dredging, weed control, buoys, planning, environmental assessments, permitting, signage, brochures, maps, websites, operation and maintenance		Planning, feasibility studies, labor, services	Not specified		Education, encouragement, enforcement, evaluation
Must have a Tree City USA Designation; need a tree management plan detailing the strategic community benefit		Emphasis should be placed on enhancement of access, enhancement of sport fishery, or existing conservation activities.	How well the project relates to the 2009 Utah State Comprehensive Outdoor Recreation Plan (SCORP)	Project must increase employment, increase local economic income, or increase knowledge and participation	Request must involve local planning organization	Must attend a workshop in your region	Any public elementary, middle, junior high, or public charter school, or school district, grades k-8. Must conform with schools Student Neighborhood Access Plan (SNAP)
1-Sep-15	May 1	October	Spring 2015	Applications accepted at any time	June 1, October 1, February 1	September	Varies, usually early in the year
1:1 match	50% (cash, in-kind services, volunteer labor, or donations)	Not specified	50%	Not specified	50% for planning, study, or design requests	None	None
Meridith Perkins meridithperkins@utah.gov (801) 538-5505	Chris Haller, chrishaller@utah.gov (801) 349-0487	Craig Walker craigwalker@utah.gov (801) 834-1970	Susan Zarekarizi, susanzarekarizi@utah.gov, (801) 538-7496	Les Prall lprall@utah.gov (801) 538-8804	Keith J. Burnett (801) 526-9465 kjburnett@utah.gov or local planning org.	Contact local planning organization	Cherissa Wood, cwood@utah.gov
http://ffsl.utah.gov/index.php/grant-programs/urban-community-forestry-grants	http://stateparks.utah.gov/grants/rectrails	http://stateparks.utah.gov/resources/boating/general	http://stateparks.utah.gov/grants/land-water	http://business.utah.gov/programs/rural/	http://jobs.utah.gov/housing/cib/cib.html	http://housing.utah.gov/cdbg	http://www.udot.utah.gov/main/f?p=100:pg:0::::T,V:1388
$1,000-$8,000	Depends on federal funding $1,546,233 in Utah for FY 2013	Around $1.3 million available statewide annually; individual project amounts vary	Depends on federal funding for the program.	Varies	Maximum $5,000,000	Varies, typically up to $150,000	Varies according to State funding
active	Active	Active	Active	Active	Active	Active	Active

Non-Profits & Foundations					
Name	**People for Bikes Community Grants**	**George S. and Dolores Doré Eccles Foundation**	**Willard L. Eccles Foundation**	**Hemingway Foundation**	**Surdna Foundation Sustainable Environments Program**
Program Purpose	Provides funding for important and influential projects that leverage federal funding and build momentum for bicycling in communities	Supports arts and culture, community, education, health care, or preservation and conservation projects that have the potential to better Utah's communities and enrich quality of life	Support of non-profit organizations addressing needs and opportunities in the areas of education, the environment, social causes, basic science, and health care	Promoting and encouraging environmental stewardship: supports nature education, environmental protection, environmental advocacy, and the acquisition and preservation of open space	Foster healthier, sustainable, and just communities by improving infrastructure in four areas: transportation, energy efficiency, urban water management, and regional food supply
Eligible Infrastructure	Bike paths, lanes, trails, bridges, rail-trails, mountain bike trails, bike parks, BMX facilities, bike racks, bike parking/storage	Not specified	Not specified	Not specified	Bike infrastructure, stormwater infrastructure, food supply infrastructure
Eligible Non-Infrastructure	Large-scale bicycle advocacy initiatives	Not specified	Not specified	Not specified	Planning, advocacy, education, community engagement
Key Project Requirements					Letter of inquiry must be submitted before being accepted for grant application process
Process Timing	Two cycles per year;	Applications selected quarterly	Applications accepted April-June	February 1, 2015	Letters of inquiry accepted on a rolling basis; full proposals approved 3 times a year
Local Match Required	None; grant must not amount to >50% of project budget	Not specified		None	Not specified
Contact	Zoe Kircos zoe@peopleforbikes.org (303) 449-4893 x5	gseg@gseccles.org (801) 246-5340	Stephen Eccles Denkers grants@wleccles.org (801) 582-4483	Brianne Johnson briannej@xmission.com (801) 363-5227	grants@surdna.org (212) 557-0010
Website	http://www.peopleforbikes.org/pages/community-grants	http://www.gseccesfoundation.org/home.html	wleccles.org	http://www.hemingwayfoundation.org/	http://www.surdna.org/what-we-fund/sustainable-environments.html
Funding Amount	$5,000 to $10,000	Varies	Varies	Varies	Not specified
Status	Active	Active	Active	Active	Active

References

Books

Flink, C. A., Olka, K., & Searns, R. M. (2001). *Trails for the twenty-first century (2nd edition)*. Washington, D.C.: Island Press.

Online Resources

Continental Divide National Scenic Trail, Trailhead Design Guidelines. Retrieved from: http://www.fs.fed.us/cdt/management/trailhead_guidelines.pdf

Websites

www.designoffice.com
www.homewyse.com
www.railstotrails.org
www.taronga.org.au
www.thisoldhouse.com

Appendices

Appendix A

Green River Trails Open House 9/8/2014

Trail Survey and Mapping Results

Introduction

The City of Green River, on August 13, 2014, in partnership with the National Park Service, Rivers, Trails, and Conservation Assistance Program held a public trails open house meeting. The purpose of the meeting was to inform the public of trail planning efforts in the City, and to get public input on future trail locations and uses in the City of Green River. This report summarizes the findings from the trail survey and mapping exercises associated with the Trails Open House Meeting.

Methodology

To capture public input during the planning process, a survey was developed along with a mapping exercise. The survey was intended to capture current use patterns, along with participant desires for future trail locations and trail types. This survey was then printed and handed out at the open house. It was also made available online through the City of Green River's website. The survey was also sent to participants at the open house, who left an email address, via email. This email encouraged participants from the meeting to forward the survey to other people who may have been interested.

In addition to the survey, a mapping exercise was also conducted with participants of the open house trail meeting. Participants were asked to draw on the maps where they thought trails should connect in their City. They were also asked to mark any significant features that they felt should be considered during the trails planning exercise. The mapped routes and notes were then transferred into a digital map. The results of the mapping exercise can be seen in Appendix A.

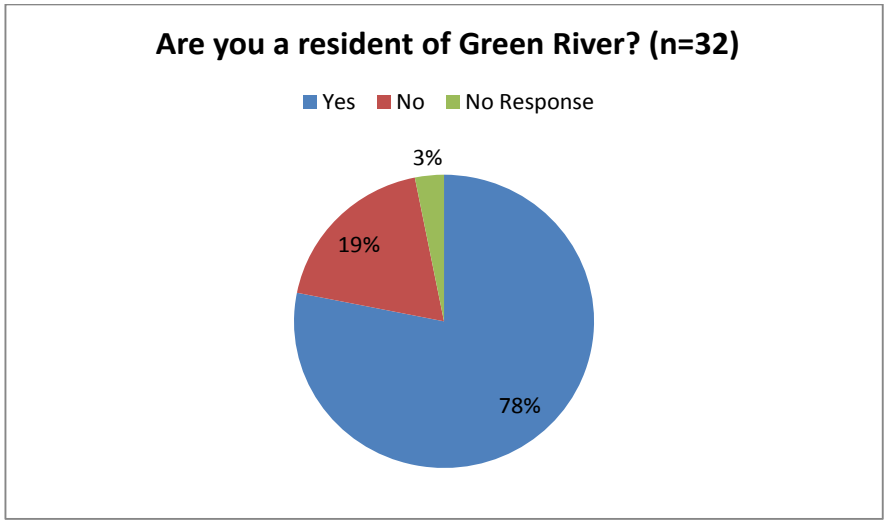
Results

A total of 32 participants completed the survey. Of all completed surveys, 22 were finished during the Open House Meeting on August 13, while the other 10 surveys were completed prior to the meeting or after the meeting. The survey was available online from August 12- September 2, 2014.

A mapping exercise also occurred during the Open House to gain a better understanding of participants' thoughts involving trails and opportunities in and around Green River. A composite map of these findings can be found as Appendix A to this report.

Breakdown of Results

1. Are you a resident of Green River?



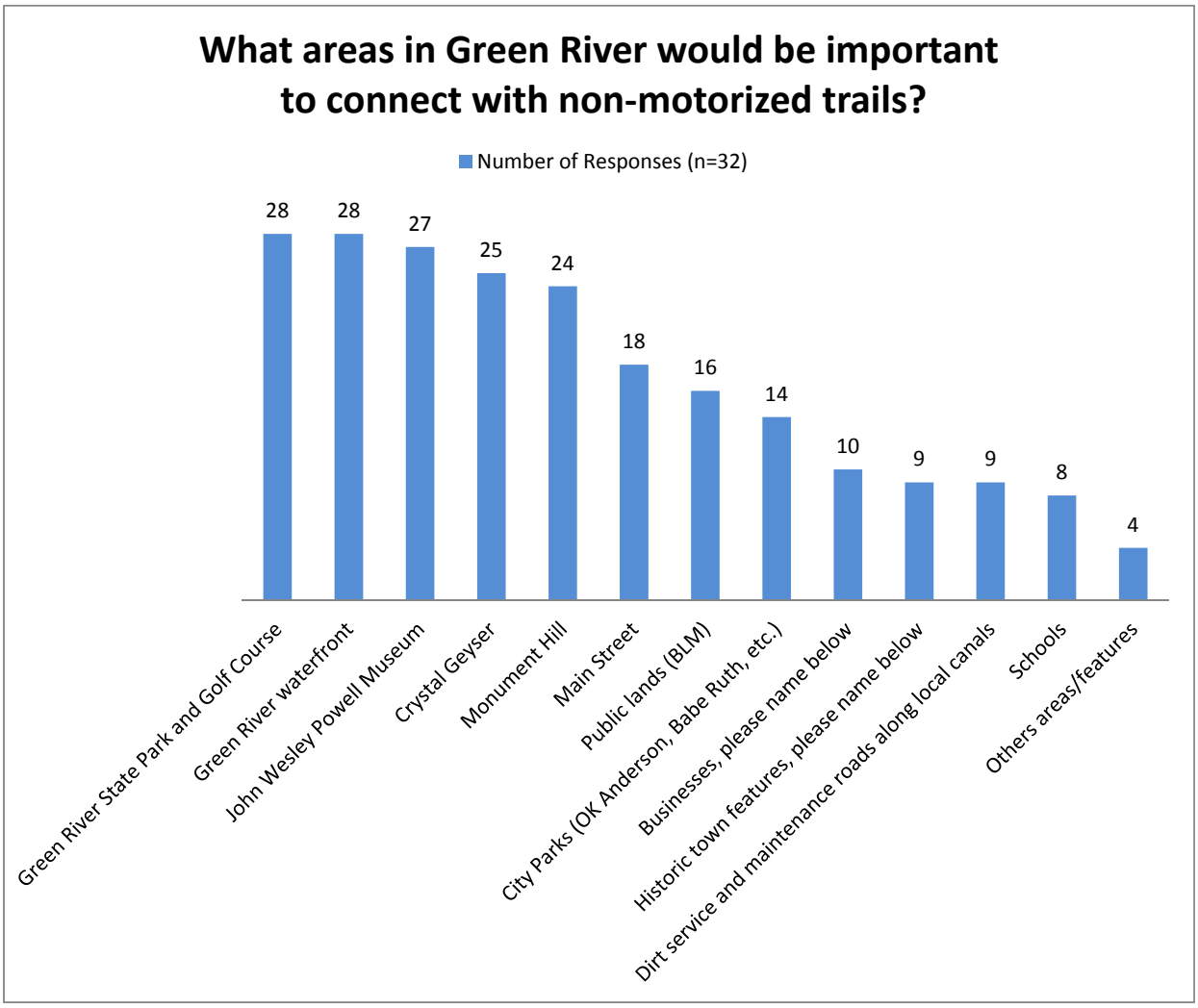
The majority of surveyed participants were residents of Green River.

2. Where do you currently walk or bike in Green River and the surrounding area?

- Main street
- North Long Street, North Hastings, to the Melon Vine, to Chow Hound, to the State Park
- Work, Friends, Store, everywhere etc.
- Walk around town and to work. Also walk trails in the Cove area, down Horseshoe Canyon Road and the Western side of the Green, in the Swell, and occasionally in the Book Cliffs.
- Around town, and north of town
- State Park, Long Street, roads throughout town
- I walk along the canal sometimes. I bike on all the streets, but especially up Long Street and down Airport Road for exercise and relaxation.
- Paved roads
- Saucer Basin, Junes-Bull Bottom, Temple Mt., Black Dragon
- Campground
- Currently, I finished college; therefore, I am no longer a couch potato. I ride horses everywhere.
- Yes
- Mainly around the river, also the GR golf course, areas in the Swell
- Ride horses on the irrigation canals
- Kings Lane - ? - 1000 N, GR Blvd
- On city streets, out to monument
- I normally bike along Main St, G-hill, and park area
- I walk everywhere in town and would like to be able to walk along the river & on up to the Book Cliffs
- Nowhere! There is nowhere to do it.
- Goblin Valley State Park, BLM Land
- Everywhere: Epicenter, Store, Community

- Airport Rd
- Streets
- San Rafael Reef & Swell, South of I-70
- Airport Road
- Near Airport, Bone Hill
- City streets
- N/A

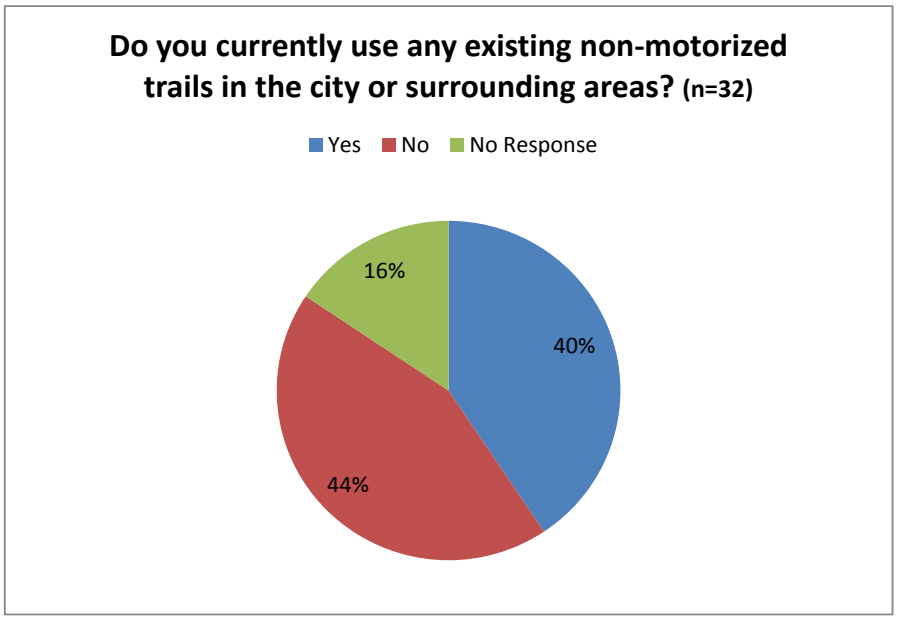
3. What areas in Green River would be important to connect with non-motorized trails?



Overall, the survey suggests that Green River State Park and Golf Course, the Green River waterfront, John Wesley Powell Museum, Crystal Geyser, Monument Hill, Main Street, and Public Lands (BLM), are the most important areas in and around Green River to connect via trails. Other write-in suggestions were provided as well:

Businesses Named	Historic Town Features Named	Other Areas/Features Named
Ray's, Chow Hound, Melon Vine, Hotels, Motels (2), Campgrounds, Restaurants, Stores, Shady Acre's (3)	Bank building (2), Arbon Café, Old cemetery, old jail, bible church, Spanish Trail, Historic Missile Trail, Missile Base, BGC/Original Schoolhouse, Elgin, Hastings Ranch and Water Wheel, Melon Stands, Broadway, Tusher Diversion Dam/Crescent Weir	Swasey's Beach, Lower Grey Canyon, Goose Point, Cathedral Butte, Tusher Wash, Coal Canyon, Rattlesnake Canyon, Battleship & Blue Castle

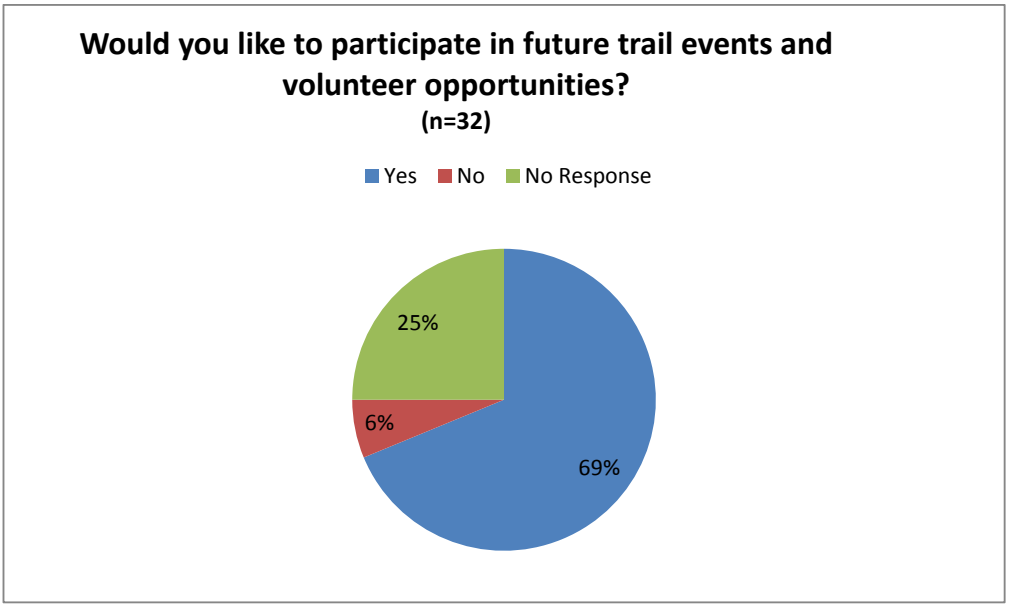
4. Do you currently use any existing non-motorized trails in the City or surrounding areas? If yes, please name below.



Overall, it appears that most people in Green River do not currently use any existing non-motorized trails in Green River and the surrounding area. Places mentioned when the answer was yes:

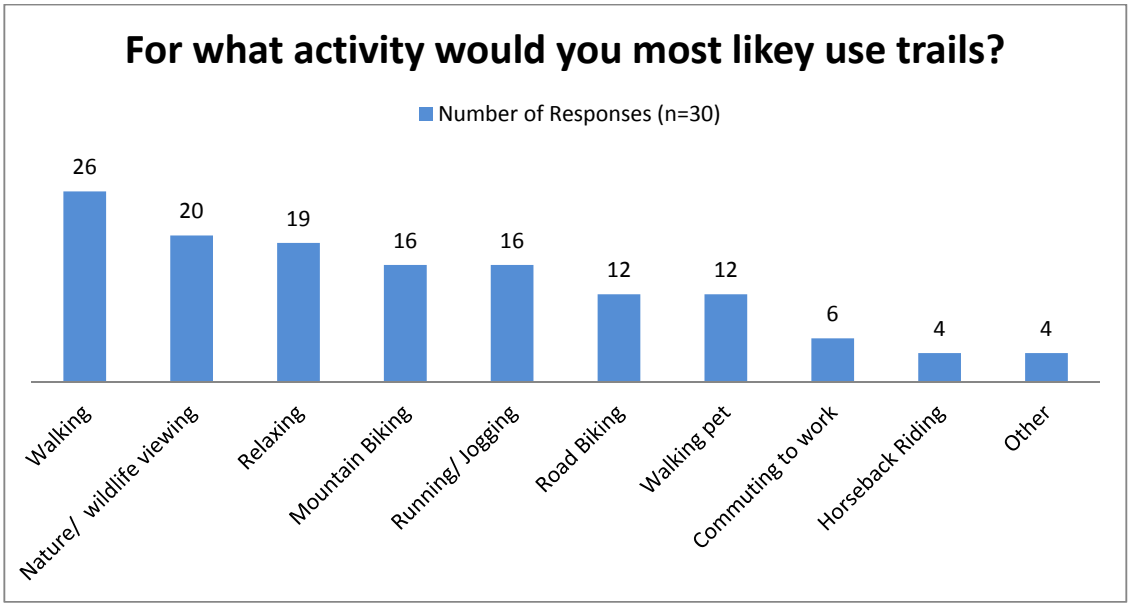
I walk everywhere unless I'm driving dodgy
Blazing Trails
The "trail" to Crystal Geyser, Monument Hill paths, and G-Hill paths
Crystal G. - F.M. Hill - Horse Bench R - Fossil Point
Campground
Tusher/Sego/GR Sand Dunes/Garbage Dump :)
Golf course paths
Canals - various cow trails in various areas of the desert
On Monument Hill
Around Lower Grey Canyon
Monument Hill
South of I-70

5. Would you like to participate in future trail events and volunteer opportunities? Leave your contact information (name, email, phone#) below and we'll contact you about future events.



Overall, the majority of participants, 22 of 32 people surveyed, reported that they would like to participate in future trail events and volunteer opportunities.

6. For what activity would you most likely use trails?



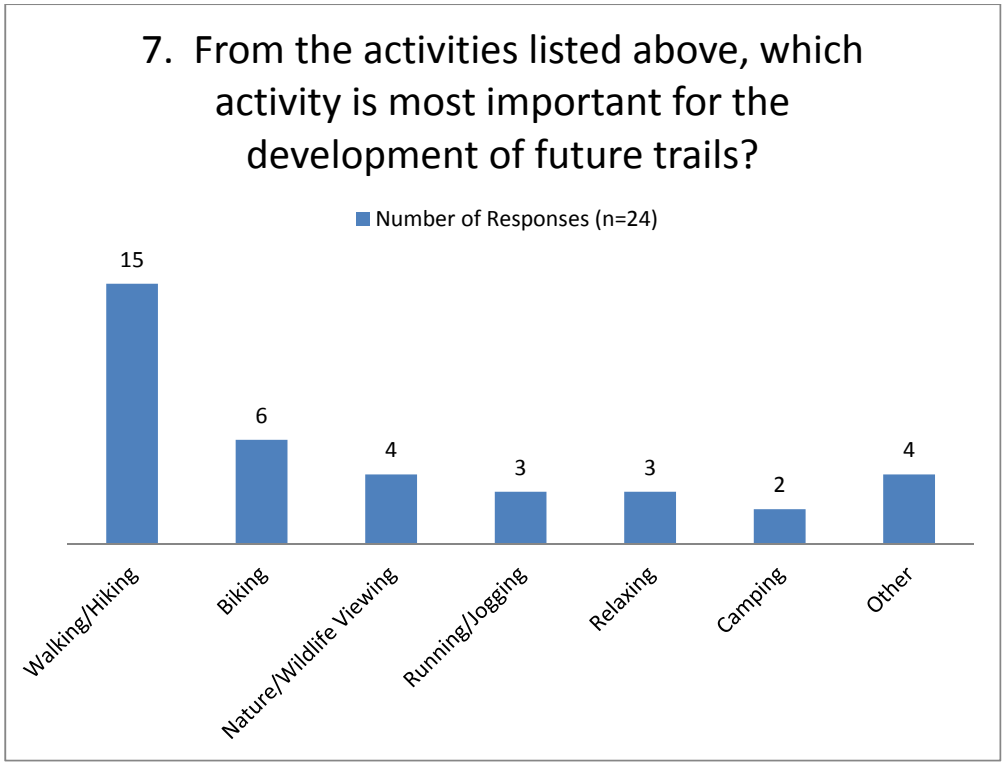
Overall, walking, nature/wildlife viewing, relaxing, and mountain biking or running/jogging were the activities, for which most respondents thought they would likely use trails. Horseback riding was the most mentioned "other"

activity, although it was only mentioned in four surveys. These results show that trails will likely be used mostly for passive recreation, but trails for active recreation, such as running/jogging, and mountain biking, should also be considered during trail planning.

Other Uses Mentioned:

Hiking and Camping (2)
Exercise
Being along the river

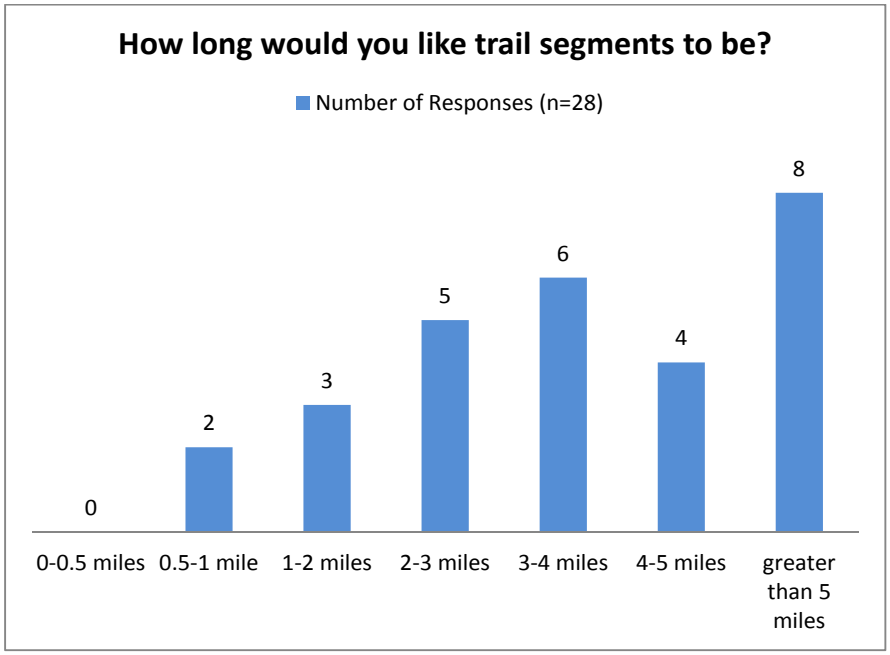
7. From the activities listed above, which activity is most important for the development of future trails?



Overall, walking was reported as the "most important" activity by those surveyed. Walking (11 votes) was followed by biking (6 votes), nature/wildlife viewing (4 votes), and jogging or relaxing (3 votes each) as the most important activity associated with trails.

Other:
Connecting places of interest (the museum, the river, monument hill)
All
Pets
None of the Above or All of the Above

8. How long would you like trail segments to be?



Generally, these results show that most people surveyed would prefer trails with distances over 2 miles in length.

9. Likelihood of Using Trail

Statistic	Dirt/Gravel Multiple-Use	Paved Multiple Use	Designated Bike Lanes on Road	Equestrian Multiple-Use	Dirt/Gravel Bike/Pedestrian Single Track	Other
Min Value	2	1	1	1	1	5
Max Value	5	5	5	5	5	5
Mean	4.57	3.88	3.91	3.84	4.23	5
Variance	0.6	1.71	1.63	1.47	1.14	0
Standard Deviation	0.77	1.31	1.28	1.21	1.07	0
Total	30	26	23	25	26	4

Overall, most people surveyed found dirt/gravel multiple use trails the trail type they would prefer. Next people thought they would most likely prefer dirt/gravel bike/pedestrian single-track trail the most. Bike lanes were the third most preferred trail type.

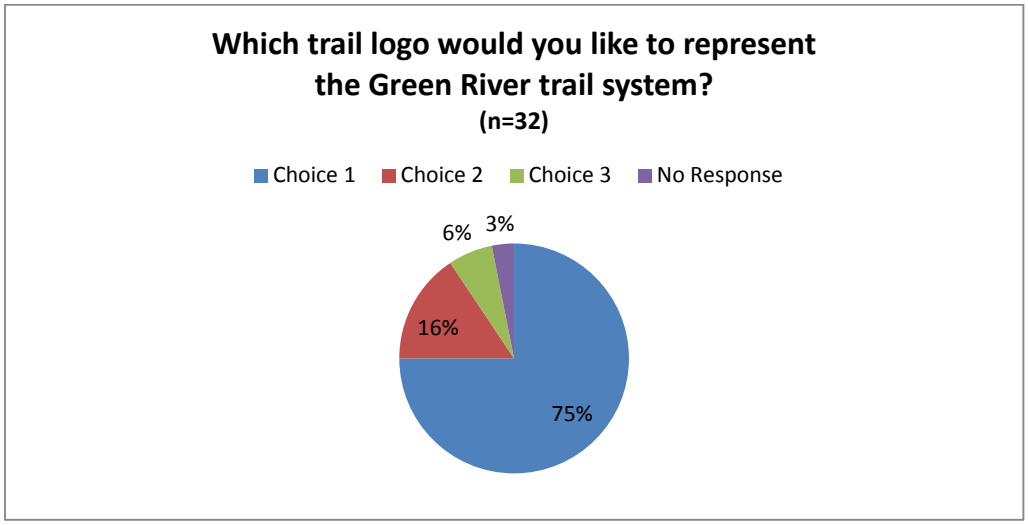
Other Responses:
Canyoneering
Equestrian w/ no bikes
Equestrian - no bikes

10. From below, which trail logo would you like to represent the Green River Trail System?

1.

2.

3.



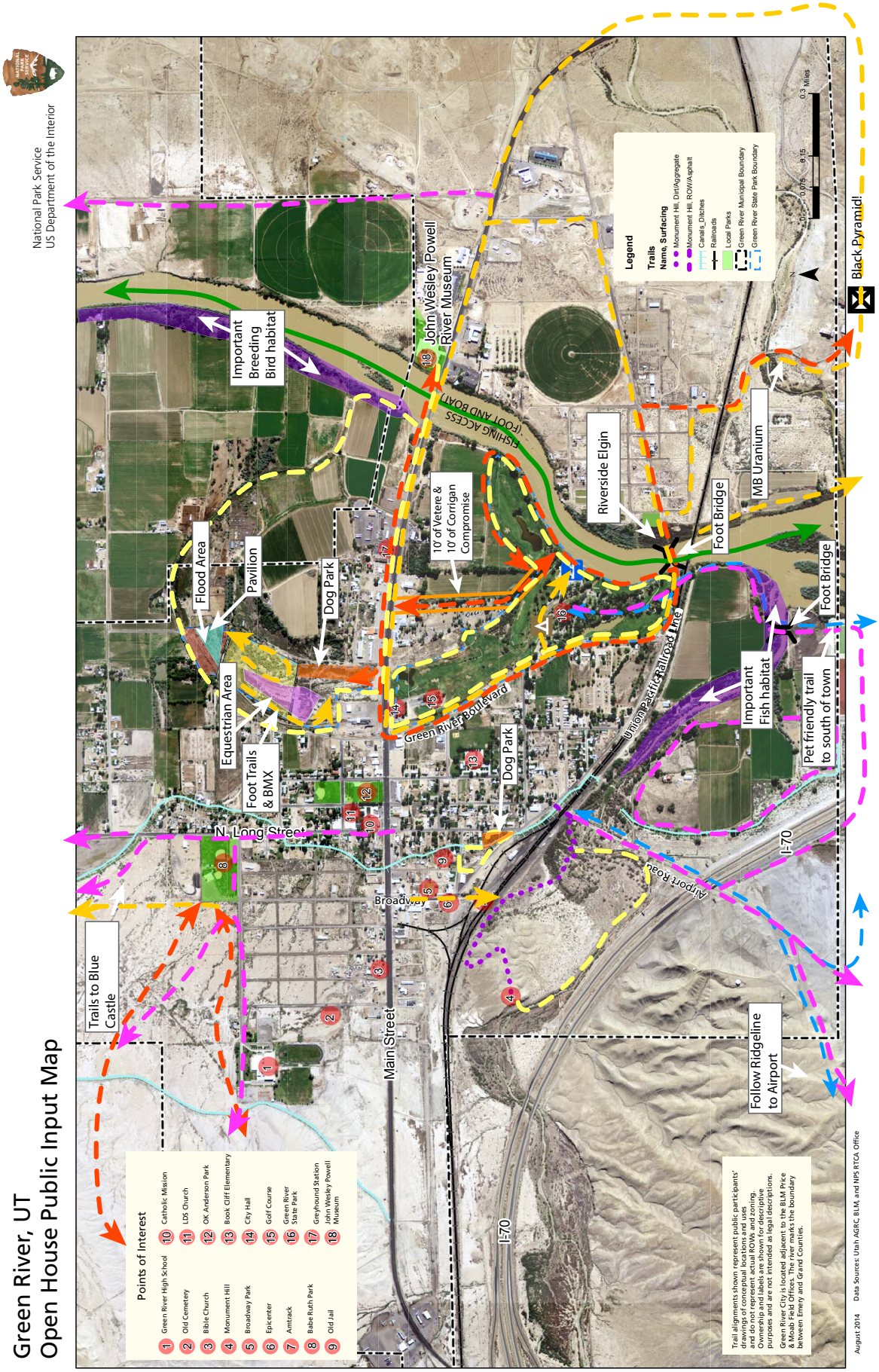
Overall, three-quarters of those surveyed preferred the first choice of logos to represent the Green River Trail System.

Conclusion

The Green River Trails Open House Survey captured several perceptions of trails and their uses that can be incorporated into the current planning effort of the Green River Trails Committee. These results reflect a group of 32 respondents, where the majority did not indicate they currently use any non-motorized trails in or around the City of Green River. There are several areas in the city that participants thought were important to connect by trails, such as, Green River State Park, Green River's waterfront, John Wesley Powell Museum, Crystal Geyser, Main Street and public lands.

It will be important to connect these areas via trails that accommodate passive and active recreation, with walking and biking being the most likely use to occur on trails. These trails can also vary in type, with dirt/gravel multi-use trails, and dirt/gravel single-track trails being the most preferred. Participants indicated that these trails should generally be longer

than two miles in length. There are also a number of people from the survey who are willing to participate in trail activities and volunteering efforts. The results of a mapping exercise can be seen in Appendix A accompanying this report. These results from the Green River Trails Open House survey and mapping exercise have been incorporated into trail planning efforts of the Green River Trails Opportunity Plan.


Green River, UT
Open House Public Input Map
National Park Service
US Department of the Interior
Points of Interest
1 Green River High School
2 Old Cemetery
3 Bible Church
4 Monument Hill
5 Broadway Park
6 Epicenter
7 Amtrack
8 Babe Ruth Park
9 Old Jail
10 Catholic Mission
11 LDS Church
12 OK Anderson Park
13 Book Cliff Elementary
14 City Hall
15 Golf Course
16 Green River State Park
17 Greyhound Station
18 John Wesley Powell Museum
Trail alignments shown represent public participants' drawings of conceptual locations and uses and do not represent actual ROWs and zoning. Ownership and labels are shown for descriptive purposes and are not intended as legal descriptions.
Green River City is located adjacent to the BLM Price & Moab Field Offices. The river marks the boundary between Emery and Grand Counties.
Legend
Trails
Name, Surfacing
Monument Hill, Dirt/Aggregate
Monument Hill, ROW/Asphalt
Canals, Ditches
Railroads
Local Parks
Green River Municipal Boundary
Green River State Park Boundary
0.3 Miles
Trails to Blue Castle
Important Breeding Bird habitat
Flood Area
Pavilion
Dog Park
Equestrian Area
Foot Trails & BMX
N. Long Street
Main Street
Broadway
Green River Boulevard
Dog Park
10' of Vetere & 10' of Corrigan Compromise
FISHING ACCESS (FOOT AND BOAT)
John Wesley Powell River Museum
Riverside Elgin
Foot Bridge
MB Uranium
Foot Bridge
Union Pacific Railroad Line
Important Fish habitat
Pet friendly trail to south of town
Airport Road
I-70
I-70
Follow Ridgeline to Airport
Black Pyramid!
August 2014
Data Sources: Utah AGRC, BLM, and NPS RTCA Office

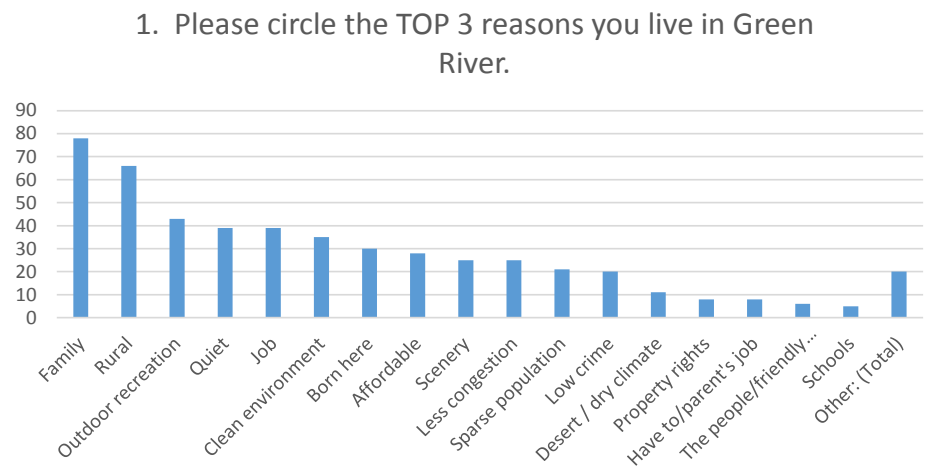
Appendix B

Green River General Plan Survey Results and Analysis

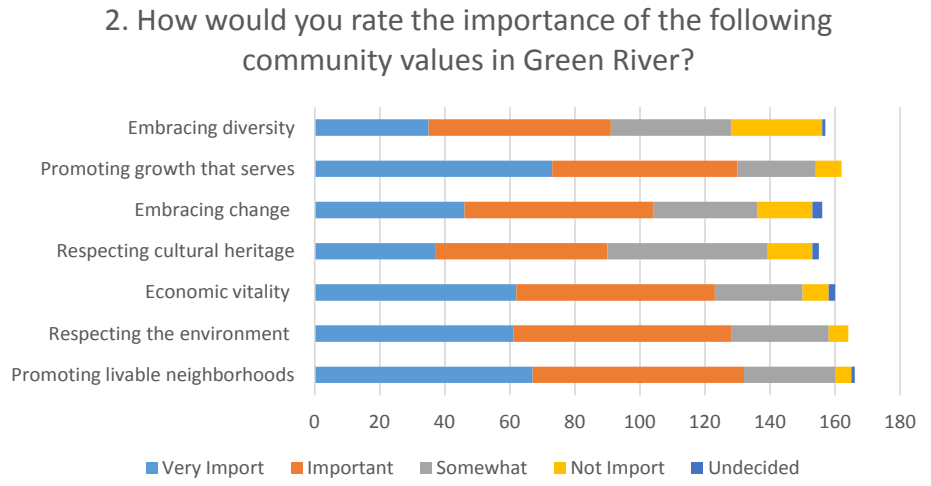
In February of 2014, Green River City administered a citizen survey to assist in the process of updating the City General Plan. Surveys were mailed out to all residents with utility billings in the city, with just under 500 copies distributed. Respondents were given the option to fill out and return the paper survey, or to go to the City's website and submit one on-line. With109 paper copies, and 56 on-line submittals, a total of 165 surveys were submitted.

The return rate was approximately 33%, which is quite good as such surveys go. National averages for the return rate of this type of survey is less than 10%. By utilizing the motivating factor of a name drawing for three $100 credits to utility billings, the Green River return rate was most likely increased.

Questions asked on this survey reflect the desire for the types of information needed, as determined by the General Plan Advisory Committee, which included representatives from the City Council, the Planning Commission and residents of the community.

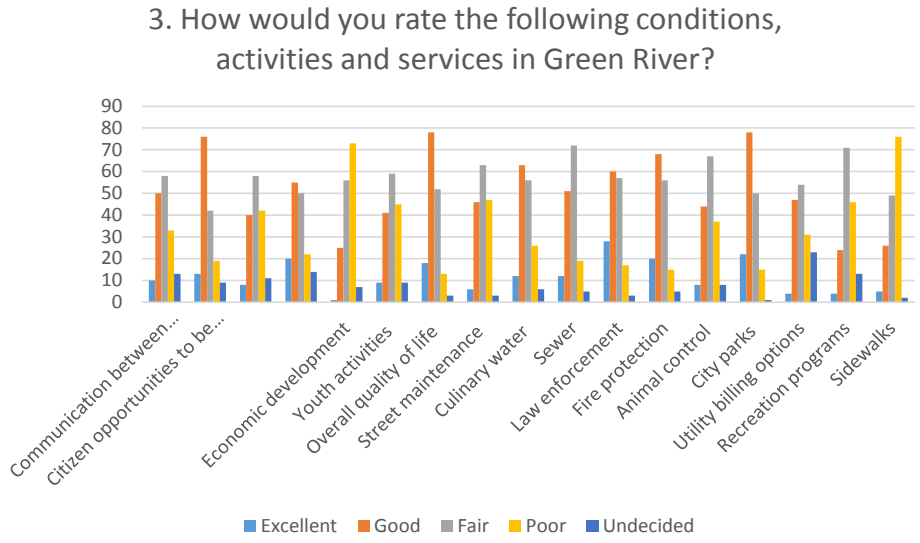


With several options available as reasons why one lives in Green River, the top responses include ***family, rural, and outdoor recreation,*** supporting the theme demonstrated generally throughout the process: ***Residents enjoy living in a small town environment.***



Those bars that show the longest combination of blue and orange represent the strongest community values. Shown as most important are:

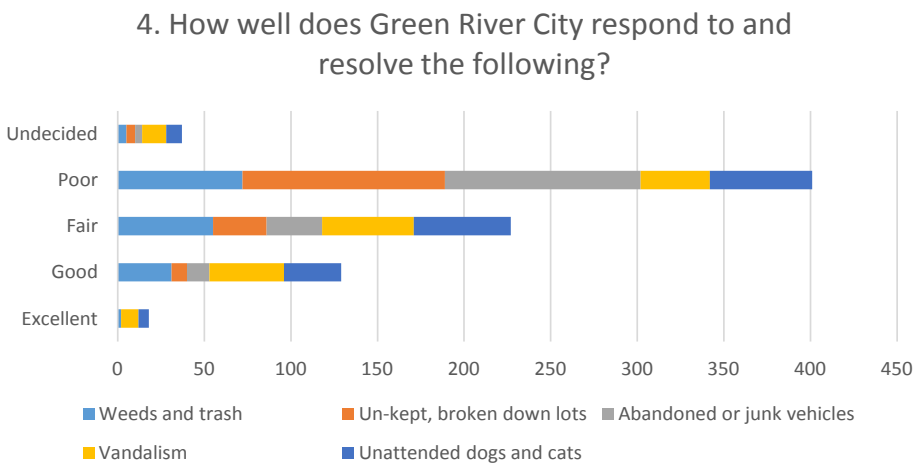
- ***Growth that serves community needs***
- ***Livable neighborhoods***
- ***Respecting the environment***
- ***Economic vitality***



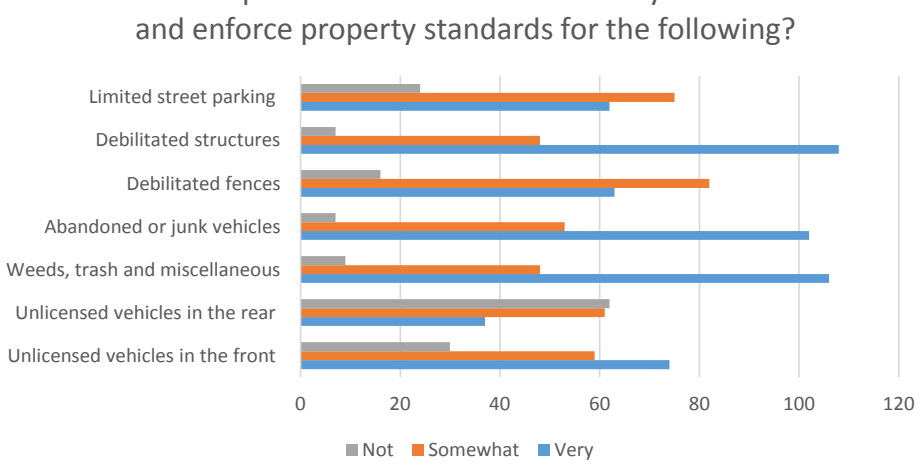
None of the listed elements were rated well as excellent, however, the **top 5** rated elements in the "good" category are:

- ***Overall quality of life***
- ***City parks***
- ***Opportunities to be involved in the city***
- ***Fire protection***
- ***Culinary water***

40% rate quality of life as "fair" or "poor".

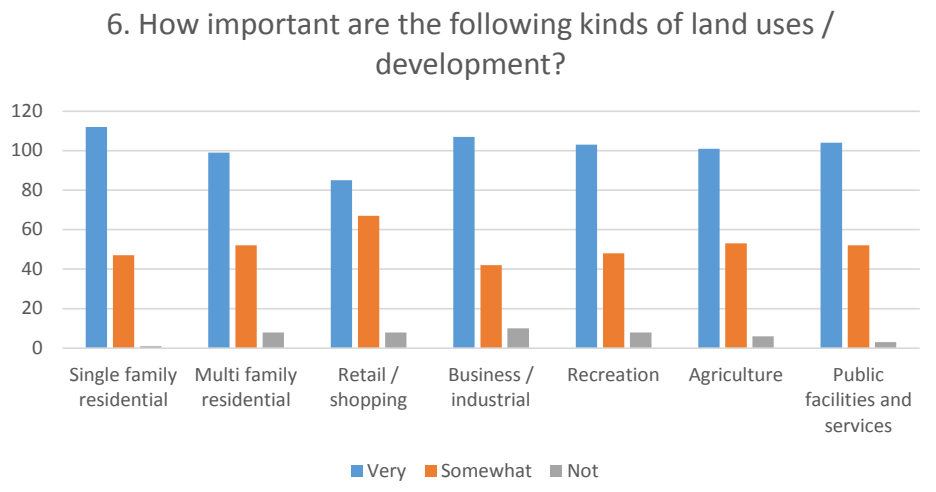


All of the areas of property zoning enforcement were ***rated fairly heavily in the "poor" category***, with a bit more favorable rating for response to vandalism.

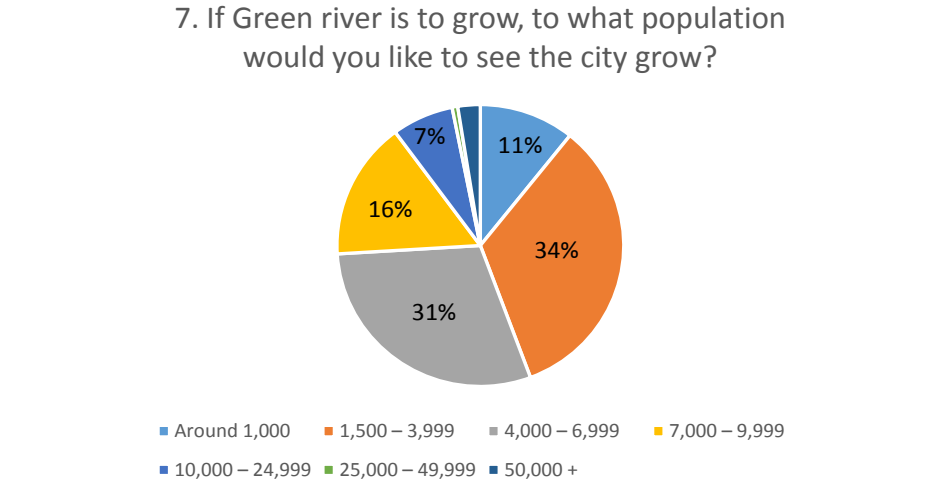


Property zoning enforcement rated strongly with a high % of respondents saying it is ***"important" or "very important" to enforce against:***

Weeds 94%
Junk vehicles 96%
Debilitated structures 96%

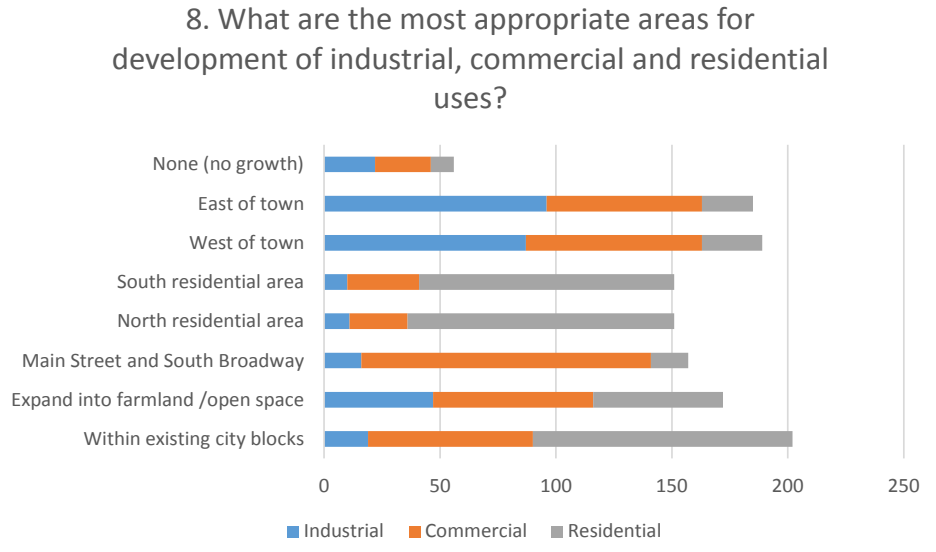


All types of land uses are deemed very important showing ***a need for a continued balance*** as the community grows.

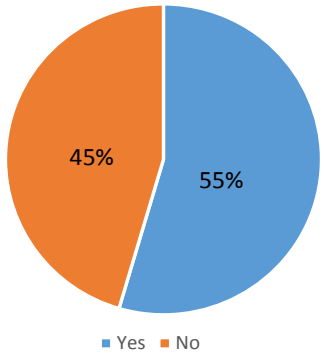
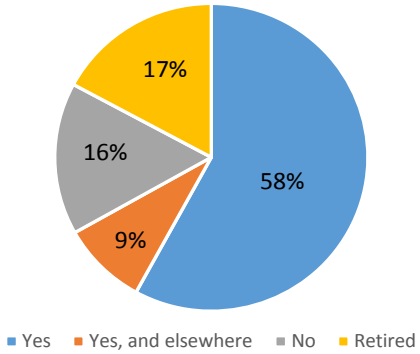
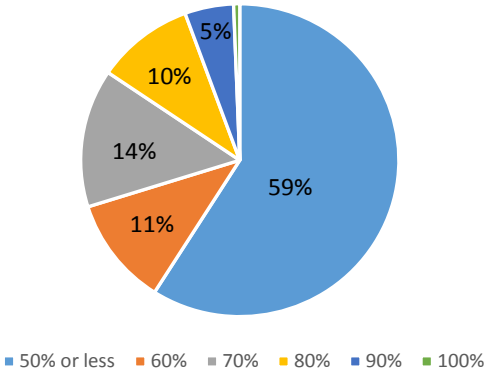


A 65% majority of the community would like to see the community grow to a population ***size between 1,500 to 6,999***, with the larger percentage desiring a maximum of 3,999.

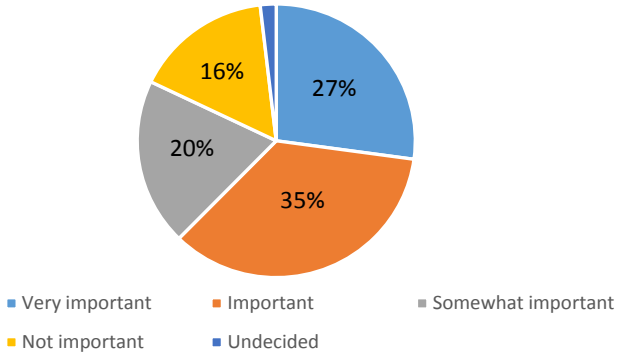
89% of respondents want Green River to grow.



This graph shows responses ***consistent with the current development pattern*** and projected growth areas of the city.

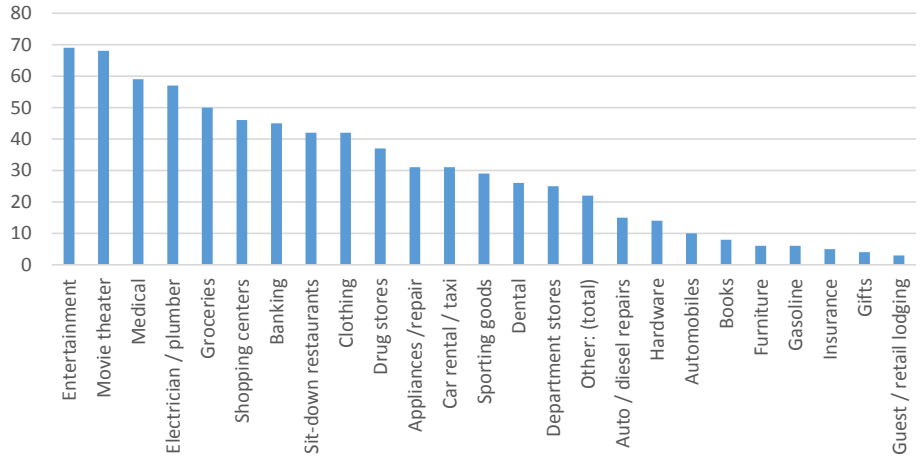
9. Do you think Green River is friendly to business opportunities?  	Though it is deemed to be fairly good with **55% answering "yes",** respondents indicate that some improvement is needed in making Green River more business friendly.
10. Do you work in Green River?  	**67%** of respondents ***work at least part time in Green River***, with 16% commuting outside of town, and 17% retired.
11. What percentage of your shopping is done in Green River?  	With the majority of shopping occurring outside of Green River, it is clear that ***more shopping opportunities are needed.*** ***59% do 50% or less of their shopping in Green River.***

12. How important is creating bicycle/ped walkways on major streets?



Although there is a mixed response, **62%** of respondents said that it is ***either "important" or "very important."***

13. Circle the TOP 5 types of commercial growth you would like to see.



Although many types of commercial growth are desired, the strongest responses are for:

- ***Entertainment and movie theaters***
- ***Medical***
- ***Electrician and plumber services***
- ***Groceries and shopping***

14. Name three specific businesses you wish were in Green River.

The responses were many and varied; however, the Top 2 responses were offered significantly more times than any others:

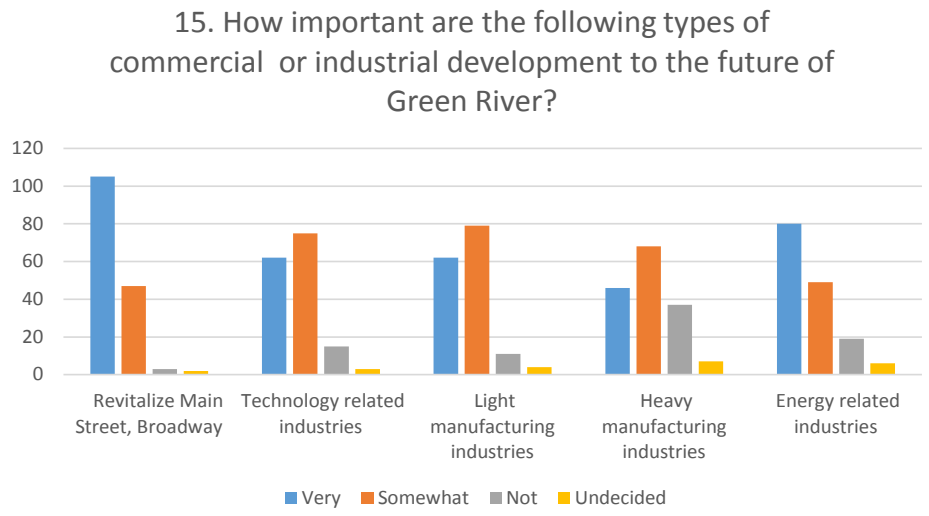
1. **Walmart, Alco or similar store**
2. **Fast foods** (i.e. KFC, Taco Bell, McDonalds, etc)

Others in the Top 5 included:

3. Sporting goods
4. Bowling
5. Discount stores

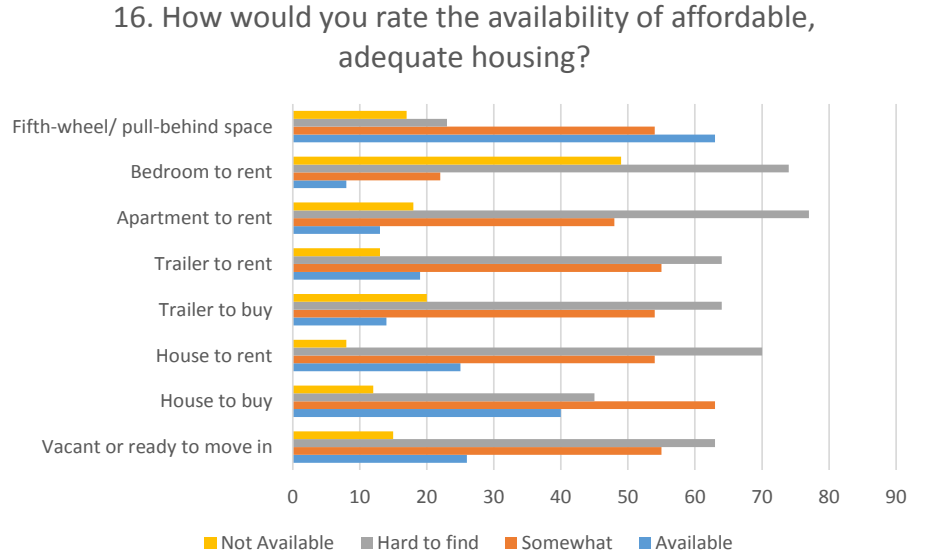
Many types of commercial retail are desired.

6

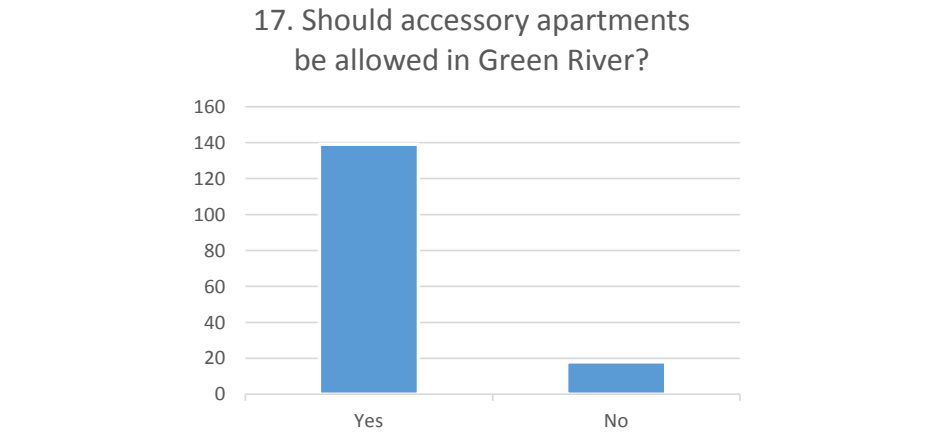


Although some importance is assigned to each type of development the ***highest is revitalizing Main Street***, and the lowest is heavy manufacturing.

97% of respondents say it is either "important" or "very important" to revitalize Broadway and Main



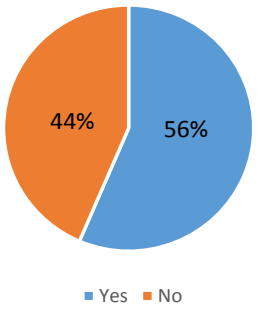
The most available type of affordable housing in Green River is fifth-wheel / pull-behind space. ***Rentals of all kinds are hard to find***, showing a need for some assistance to improve the housing situation.



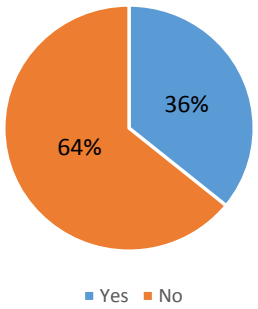
A strong majority **(89%)** of respondents indicated that ***accessory apartments are important*** to Green River's housing options.

7

18. Do you feel there are enough parks, trails and open spaces?

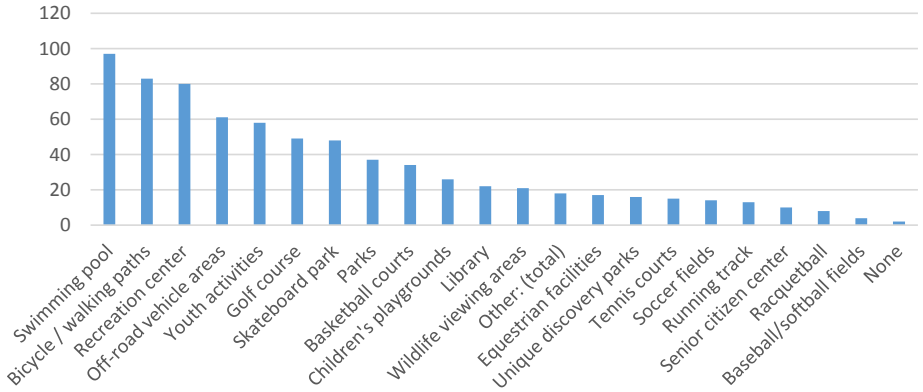


19. Do you feel Green river offers sufficient recreational facilities and opportunities?



Although a majority of respondents feel there are ***enough parks, trails, etc***, a stronger majority feels the ***need for more facilities and opportunities.***

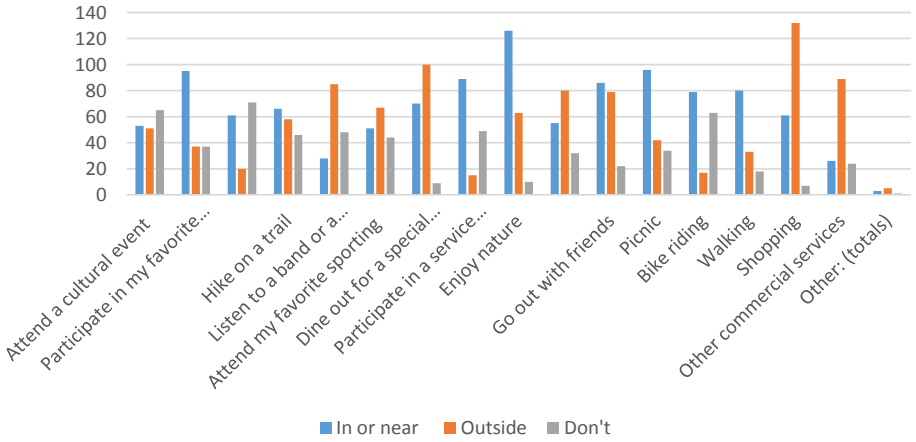
20. Circle the TOP 5 recreational facilities that should be developed or expanded in Green River.



The top 5 desired recreational facilities include:

- Swimming pool
- Bike/walking paths
- Recreation center
- Off-road vehicle areas
- Youth activities

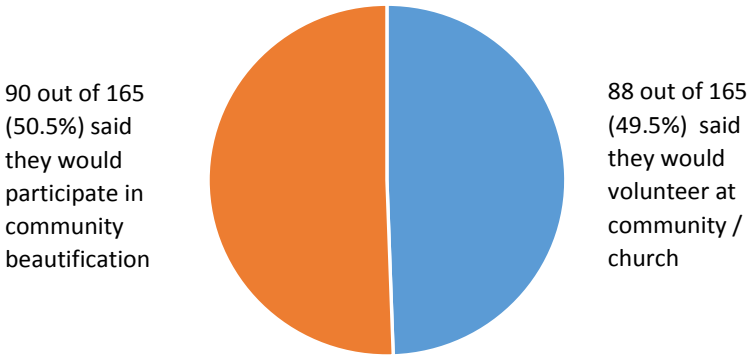
21. Check any of the following activities in which you currently participate in Green River, or in another location.



Many local outdoor activities are enjoyed close to home, yet commercial needs services and entertainment are largely sought outside of the community.

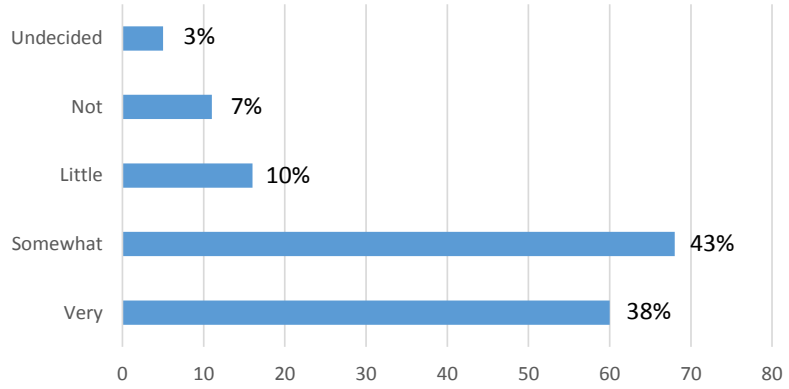
8

22. If given the opportunity would you participate in the following events?



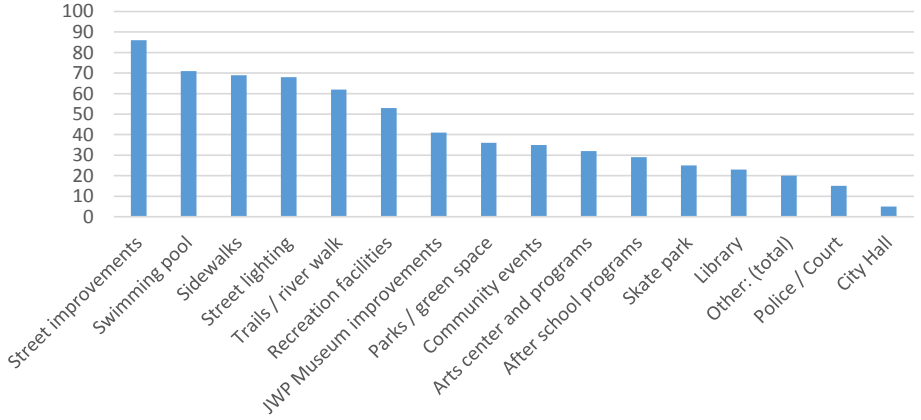
A strong willingness to be involved is indicated at both levels.

23. How important is the preservation of open space in town?



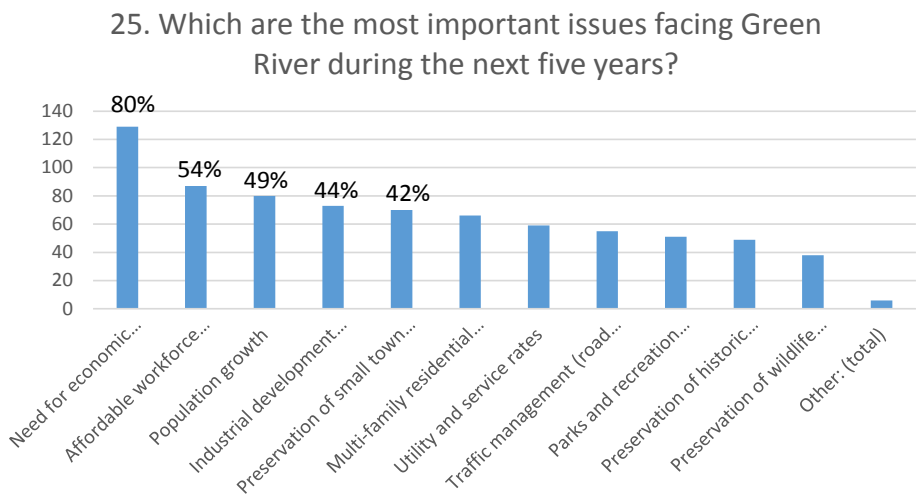
Open space in town is an important factor to most respondents, with a total of **81%** indicating it is either ***"somewhat" or "very" important.***

24. If you could direct the tax monies already paid in Green River, which of the following services and facilities would you be most interested in?



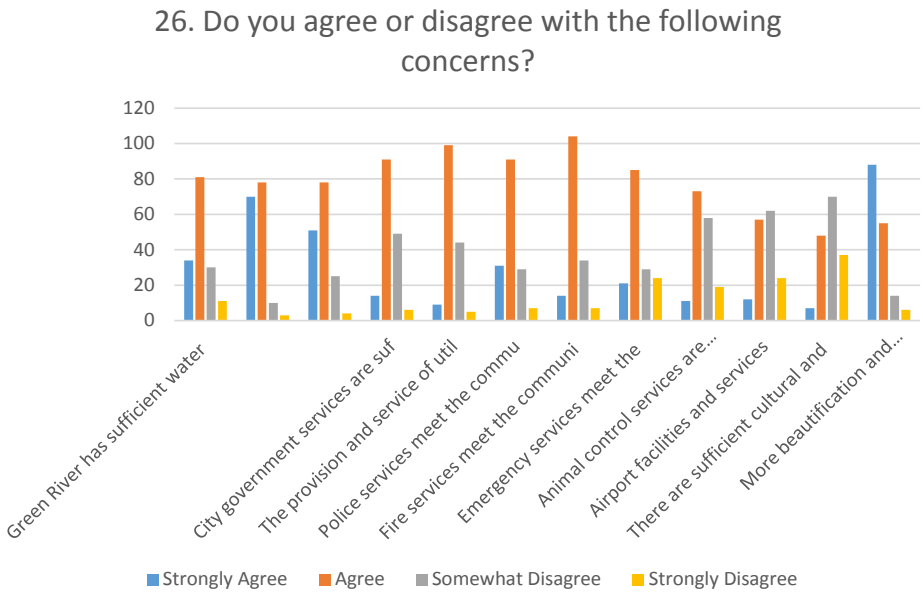
The **top 5** services and facilities desired by respondents include:

- ***Street improvements***
- ***Swimming pool***
- ***Sidewalks***
- ***Street lighting***
- ***Trails / river walk***



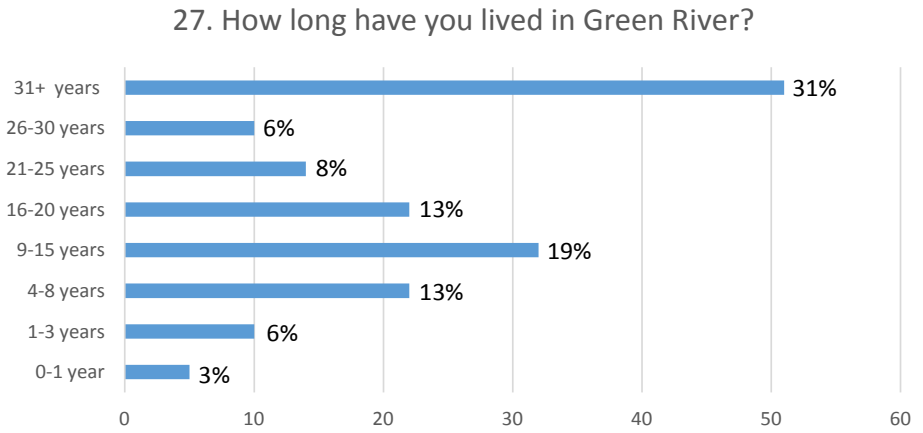
Unquestionably, the ***most important issue*** indicated is the need for ***economic development.*** Other strong issues include:

- Affordable workforce housing
- Population growth
- Industrial development
- Preservation of the small town



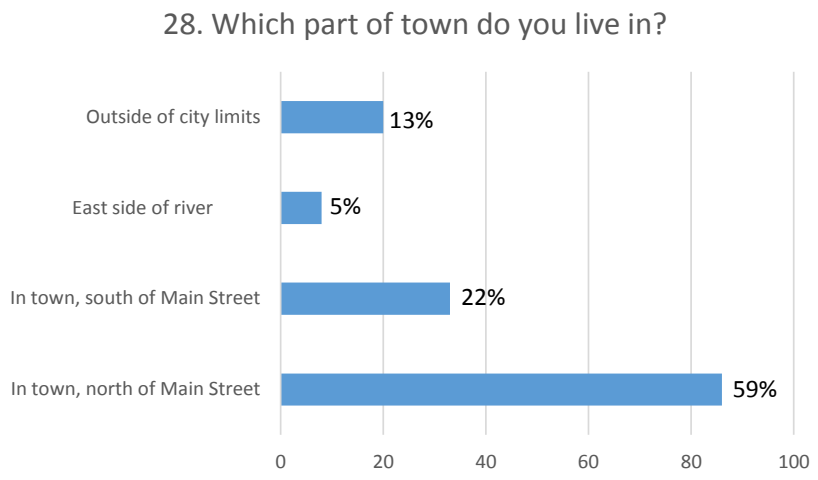
Agreement at fairly strong levels was given to most of these concerns, with less agreement with the sufficiency of the airport and the cultural and recreational opportunities in town.

The need for beautification and improvement efforts rated the highest.

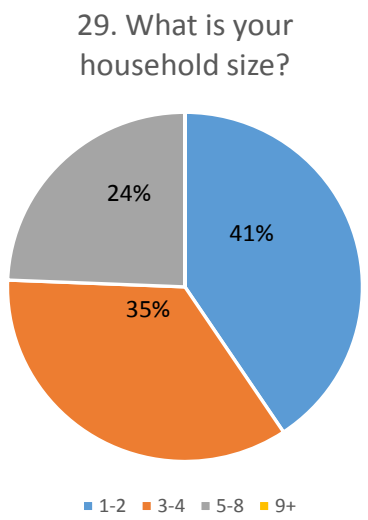


77% of the respondents have lived in Green River for at least 9 years.

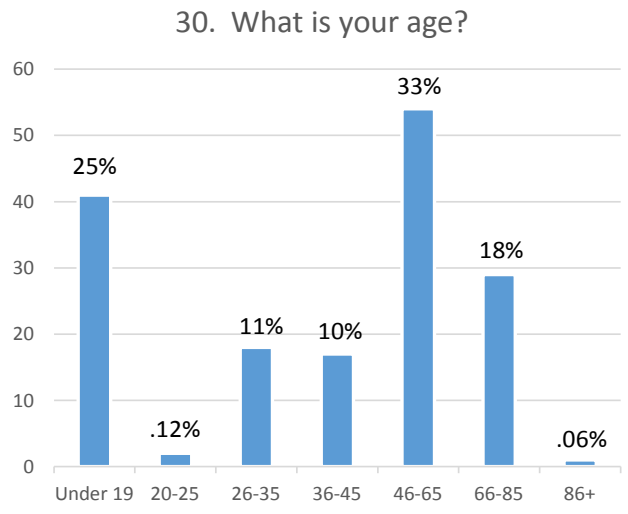
10



A majority of respondents live ***north of Main Street.***



76% of the respondents have less than 5 people in their household.



The strongest age categories were from respondents:

Under 19 (25%)
and
46-65 (33%)

Average age = 44
Median age = 47

Comments:

Please build a mall! Teens need something to do. Like town small, more entertainment.

The streets suck, they need to be repaired. Seriously!

Water in summer is gross.

No nukes! Need rentals for low income. Fines for neglecting owners. Health/safety hazards.
Get well-trained people to help city. Training for city workers and drug tests. Outside consultant to promote growth. Status quo isn't cutting it.

City spending out of control. Too many employees; better use of tax money is to instead give a few a raise.

City needs to repair streets in a timely manner when they are dug up for water/sewer repairs.

Fix what we have before bringing in new business. More concern for beautification.

Decide can have positive jobs instead of junk industries. Other possibilities discouraged by high taxes.
Bring industry. Rec and entertainment will follow. Without growth, we grow older and become less relevant. Industry + tourism.

Need affordable water rates for those without access to secondary water!

Encourage elected officials to seek support from refinery/nuclear plant to cover costs of new infrastructure/
Need youth/work practical training programs. Clean business loop. Encourage mom and pop businesses. Ambulance needs improvement. Deal with County more firmly.

City has a bloated workforce with too many benefits/not enough work. Mayor gets a D.

No jobs, no growth. Schools behind, council members have voted against industrial development.

Decay of town, abandoned homes. First clean up town then think about growth.
River walk best rec opportunity. City needs to incentivize industrial growth. Industry/oil refinery is a good thing. Promote SR Swell.

Improve or demo derilict buildings

Clean air now, concern for polluting industries west of town. Water needs protection too.
Please discourage idea of building a swimming pool; arrange to use a motel's. Make use of existing public facilities for basketball and track.
Tourists comment the town is trashy. City should clean it up and send a bill. Don't be scared of loud mouths with foul language!

Need new road/sidewalk 945 E and to Elgin. Get rid of junk cars and yards.

Please build a mall! Teens need something to do. Like town small, more entertainment.

The streets suck, they need to be repaired. Seriously!

The town is in need of sustainable economic growth. Proposed nuclear power plant is not a long term economic fix - negative on tourism. Impressed with City Council.

Water in summer is gross.

No nukes! Need rentals for low income. Fines for neglecting owners. Health/safety hazards.
Get well-trained people to help city. Training for city workers and drug tests. Outside consultant to promote growth. Status quo isn't cutting it.

City spending out of control. Too many employees; better use of tax money is to instead give a few a raise.

City needs to repair streets in a timely manner when they are dug up for water/sewer repairs.

Fix what we have before bringing in new business. More concern for beautification.

We need more homes and activities for the youth and job opps. Healthy job opps

Happy to discuss any of my answers :)

Decide can have positive jobs instead of junk industries. Other possibilities discouraged by high taxes.
Bring industry. Rec and entertainment will follow. Without growth, we grow older and become less relevant. Industry + tourism.

Need affordable water rates for those without access to secondary water!

Encourage elected officials to seek support from refinery/nuclear plant to cover costs of new infrastructure
Need youth/work practical training programs. Clean business loop. Encourage mom and pop businesses. Ambulance service needs improvement. Deal with County more firmly.

City has a bloated workforce with too many benefits/not enough work. Mayor gets a D.

Clean up the trash and heavy equipment along main street

Utilities are way to high- lower these prices. Don't put the postmark stamp over details on the utility bills.

Need better with curb, gutter, and sidewalk. Commercial growth is a must.

Thank you.

No jobs, no growth. Schools behind, council members have voted against industrial development.

Decay of town, abandoned homes. First clean up town then think about growth.

Every little bit helps, keep up the work

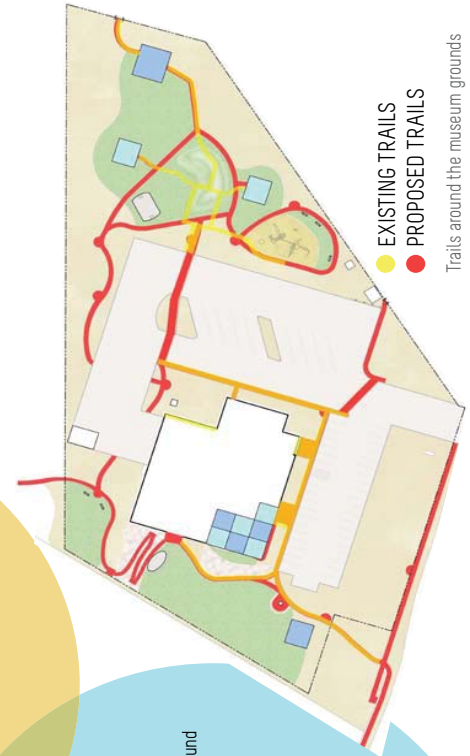
Appendix C

LANDSCAPE DESIGN PLAN
JOHN WESLEY POWELL
RIVER HISTORY MUSEUM
Green River, Utah
Trail Connection
River Overlook
Viewing Platform
Stage
Museum Amphitheater
GREEN RIVER
J.W. Powell Statue
Riverside Bowery
Trail Connection
MUSEUM
Pergola
Interpretive Trail
Stage
Public Event Space
Parking Lot Enhancements
Playground
Tesla Supercharger Station
COMFORT INN
TAMARISK RESTAURANT
I - 70
0' 25' 50' 100' 150'
NORTH

KEY DESIGN CONCEPTS

Historic photo of J.W. Powell and crew

Wall relief of J.W. Powell and crew



Trails around the museum grounds

EDUCATION

INTERPRETIVE SIGNAGE

MUSEUM AMPHITHEATER
for lectures, performances, films

SUSTAINABILITY

Environmental / Economic / Social

Replacement of non-essential turf areas with
LOW WATER PLANTINGS
3 categories for water conservation

Cultivation of
NATIVE UTAH PLANTS

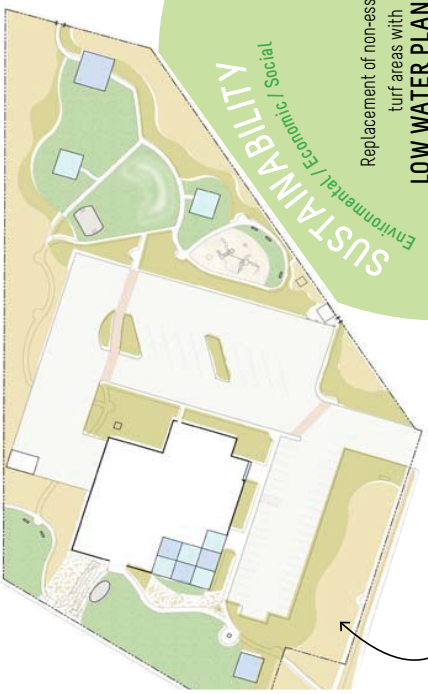
CONNECTIVITY

On the Property / In the Community / With the River

ADDITIONAL TRAILS
with connections to proposed river trail

GATHERING PLACES
including a community amphitheater and playground

STRENGTHENING RIVER THEME
by using wall relief as a visual motif
and activating spaces alongside the river



- OASIS 35%
- ENHANCED DESERT 30%
- DESERT 35%

* Turf reduced by 65%

* 33% water savings (comparing turf to low water shrubs)

Breakdown of proposed plantings by 3 categories

Viewing Green River from the museum grounds

PROPOSED PHASING

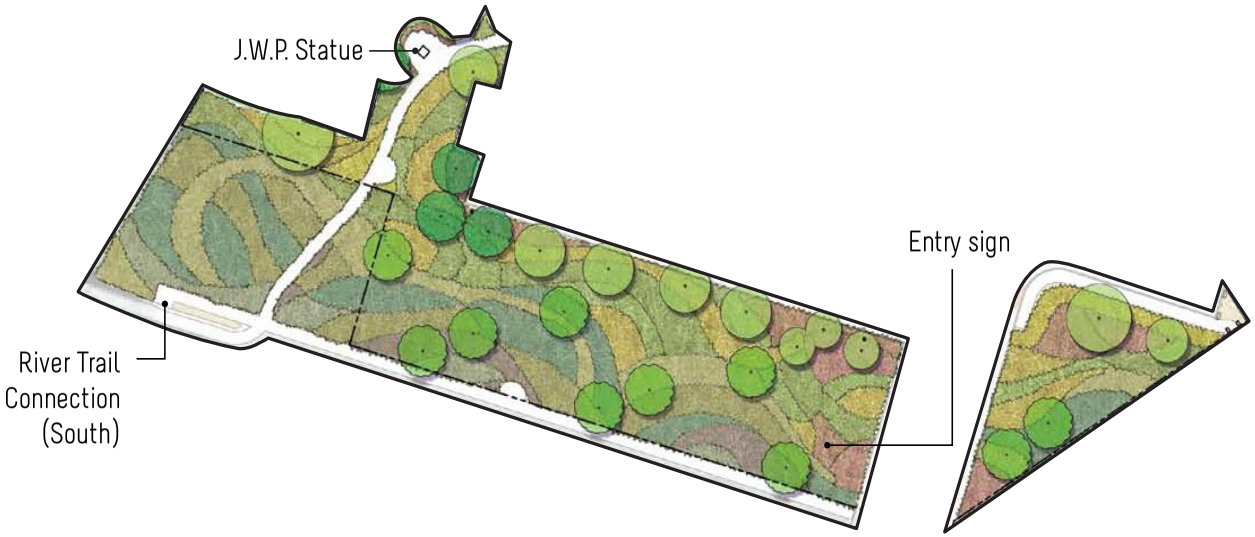
PROPOSED PROJECT PHASES

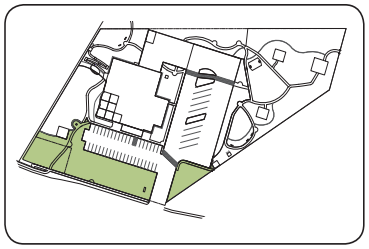
To make the re-landscaping of the museum more manageable, it is suggested that the project be broken down into seven phases. The proposed phases are based on the location of spaces and the purposes they serve. They are labeled A through G. The order the phases are built should be determined by the city council and the needs of the museum and community of Green River. They need not be completed in alphabetical order.

A

PROPOSED PHASING

STREETSCAPE





Wall Relief

Entry Sign

John Wesley Powell Statue

Using the wall relief at the entrance of the museum as a motif, the new streetscape emphasizes the theme of the museum, Green River history and John Wesley Powell.

The John Wesley Powell statue is re-positioned at the front section of the property to increase visibility from the street and entrance of the museum. The new location also allows the river to be the backdrop for the statue further linking Powell with the river we see today.

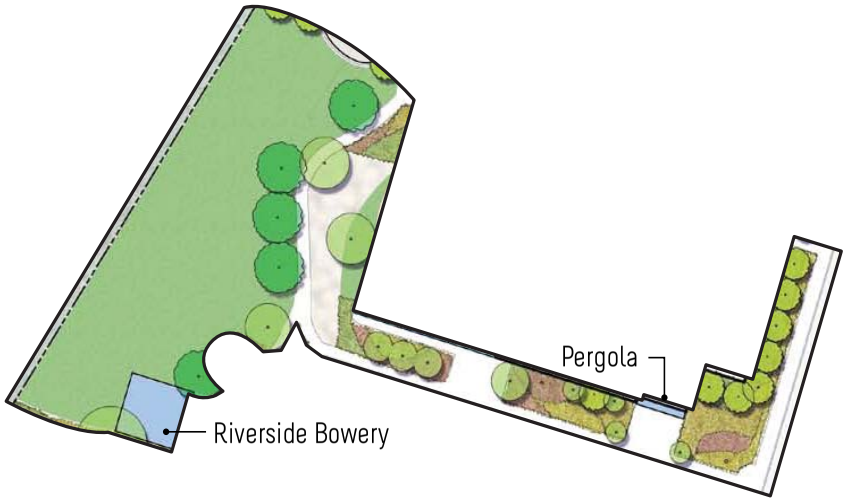
Both the new pedestal for the Powell statue and the base of a new entry sign use concrete relief in the same design and manner as the wall relief at the entrance to the museum for visual unity.

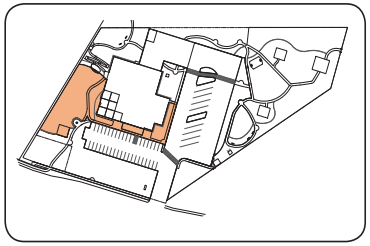
The concrete walk leading into the southwest corner of the property is a designated connection to a proposed river trail to increase connectivity through the community.

B

PROPOSED PHASING

MUSEUM FRONTAGE





To enhance the museum facade, a pergola, similar to the bowery roofs is added to the bathroom entrances.

More shade trees and a bowery like the ones on the east side of the property are added to the river side of the museum to allow people to take advantage of the river views while picnicking.

Blue or turquoise roofs for both the bowery and the pergola that match the architecture of the museum building will provide visual continuity.

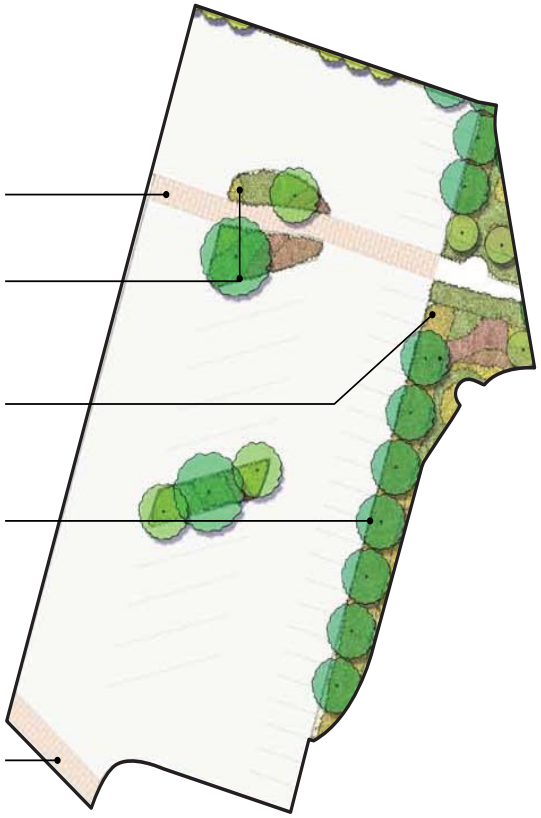
Existing Entrance w/Blue Roof

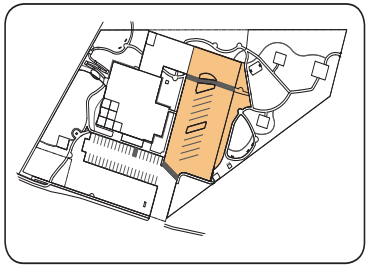
Bathroom Pergola

C

PROPOSED PHASING

PARKING LOT ENHANCEMENT





Precedent Parking Island

Precedent Crosswalk

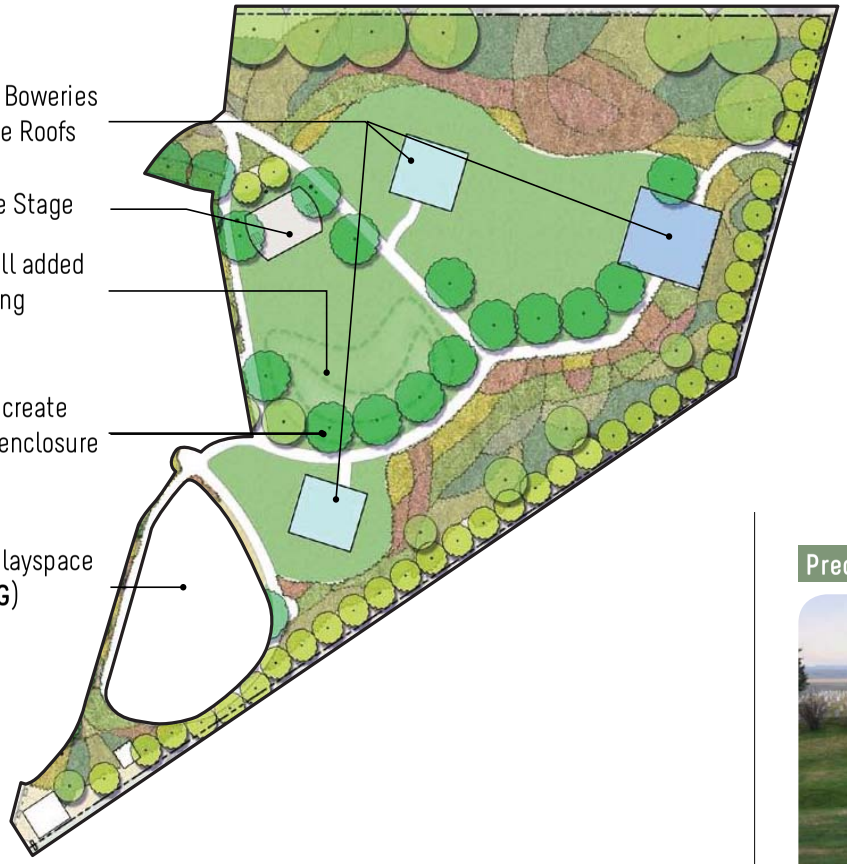
Two strips of concrete are removed to install crosswalks of brick pavers that break up the expansive parking lot and encourage museum visitors to explore and enjoy the east side of the grounds. Parking islands planted with shade trees and shrubs likewise make the parking lot more aesthetic and comfortable. The images on the left are examples of a parking island and a crosswalk of brick pavers.

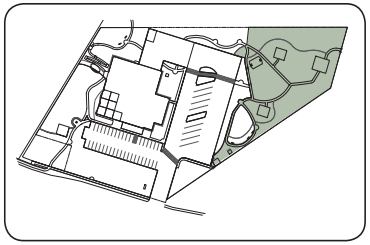
Shade trees and shrubs lining the parking lot are added to screen the parking lot from the community event space, create a cooler microclimate for parked cars, and to create a physical safety barrier, especially for children, between automobile traffic and people activities.

D

PROPOSED PHASING

PUBLIC EVENT SPACE





A small concrete stage, vertical vegetation, concrete paths, and a small hill create the enclosure and focal point for the definition of a community event space. **The** grass amphitheater is modeled after the one shown below at Little Bighorn Battlefield National Monument. A grass oasis around it is preserved for picnicking, relaxing, and playing. Bowery roofs are made blue to tie the outdoor spaces to the museum architecture.

For details on grading for the small hill, see the **conceptual grading plan**.

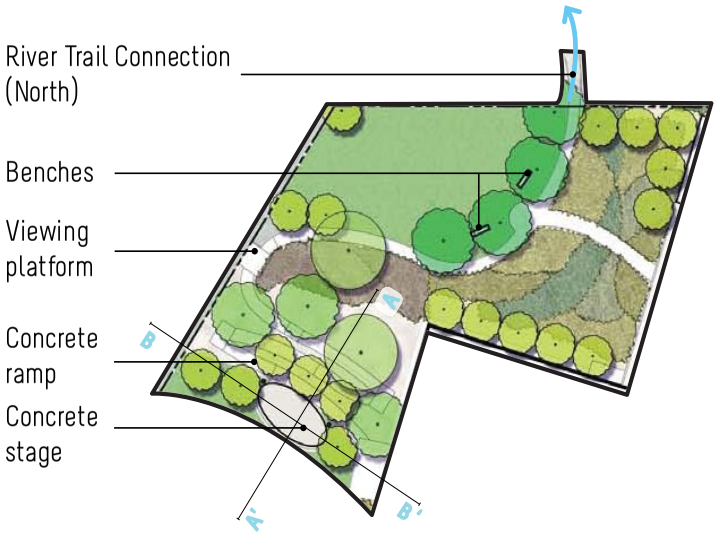
This south part of this space encloses a playground, phase **G**, to be developed following phase **D**. Before the playground is built, this space should remain grass turf.

Precendent Grass Amphitheater

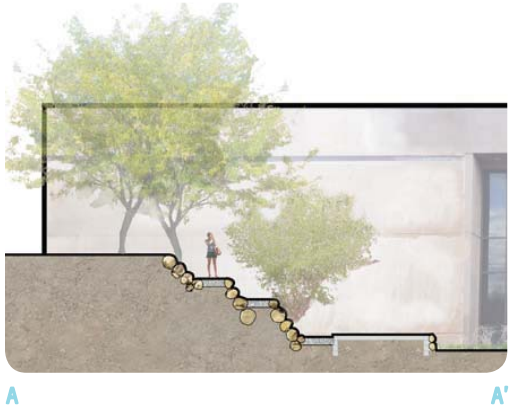
E

PROPOSED PHASING

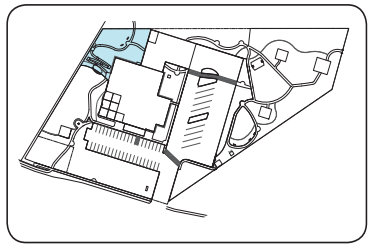
RIVER OVERLOOK / MUSEUM AMPHITHEATER



Ramp/ Stage Sections



View from River Overlook



The river overlook takes advantage of the highest viewing point over the river. This area, now the "back side" of the museum, is activated by connecting it to the front with a snaking concrete ramp. Benches placed in a grass "oasis" at the top of the hill facing the River create an observation point and area of relaxation.

The river overlook also provides a node / resting point for the proposed trail along Green River. For travelers coming from the north of the property this trail connection is an entrance to the museum grounds.

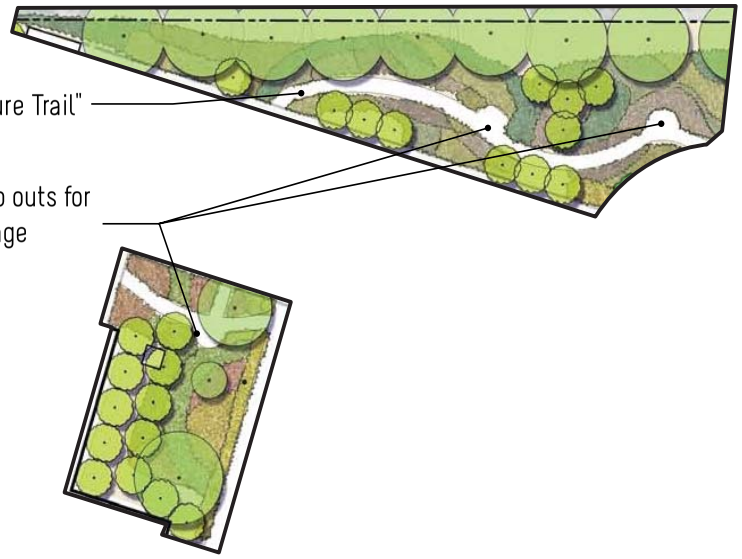
Re-grading the hill on the west side of the museum may allow ADA access up to the overlook. See the conceptual grading plan for more details on desired slopes and construction.

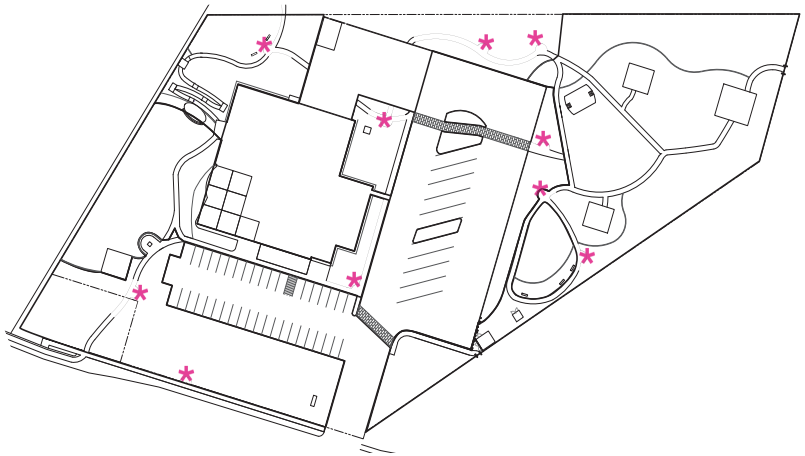
The natural amphitheater shape of the property with the steep hill providing a stage backdrop in the north and a gentle upward slope for seating to the south allows for a gathering space right outside the museum's side door. By building a stage at the base of the hill, a simple performance space provides a venue for outdoor lectures and other performance events.

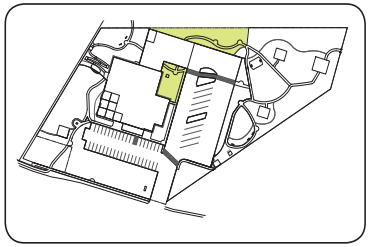
F

PROPOSED PHASING

NATURE TRAIL / INTERPRETIVE SIGNAGE







Precedent Interpretive Signage

A nature trail, planted with mostly plants native to Utah, winds around the north side of the property. This section of the museum could be developed into a desert demonstration garden with botanical signs for the various plants. Bump outs in the trail also create areas for interpretive signage about the desert environment and ecology of Green River.

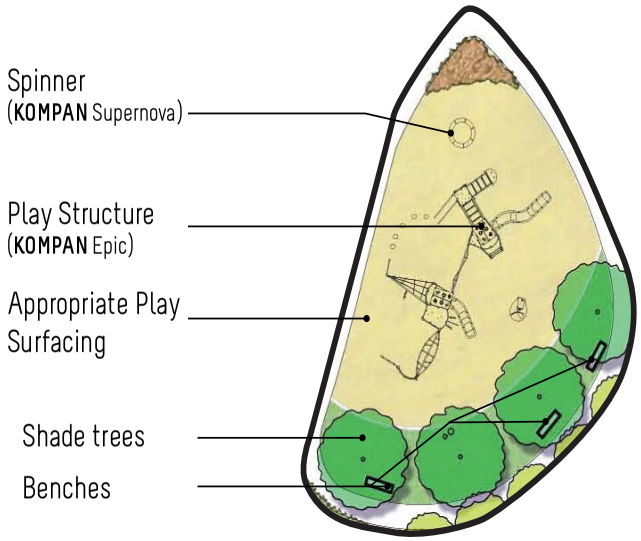
Also included in this phase is the interpretive signage for the rest of the designated locations on the property, as indicated to the left. The outdoor exhibit signs augment visitors knowledge and provide information when the museum is closed. Possible themes for interpretive signage include: The history of the city of Green River, Watermelon days, the Bookcliffs and other surrounding natural landmarks, dinosaurs, John Wesley Powell and other river explorers.

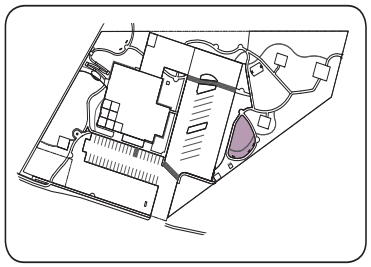
The precedent images to the left show different types of interpretive signs.

G

PROPOSED PHASING

PLAYSCAPE





The intent of adding a playground to the museum landscape is to make the community event space feel more like a recreational park giving the people of Green River an additional outdoor amenity that can also be shared with visitors. Surrounding the play area is a grove of shade trees with bench seating for resting and for watchful parents.

The play equipment shown are possible options from the manufacturer KOMPAN-- a play structure and spinner-- that fit into the given space and are appropriate for children from age 5 to 12.

Play equipment should be installed with appropriate fall zones and safe surfacing, such as wood fiber.

Possible Play Equipment

CONCEPTUAL PLANTING PLAN

SHRUB PLANTINGS

Plantings are split into three zones: **Oasis** (high water use lawn turf and shade trees), **Enhanced Desert** (low water use, lush looking shrubs and shade trees) and **Desert** (very low water use shrubs and accent trees).

The desert and enhanced desert zones contain dense groupings of the same plants designed to create swaths of color and texture that mimic the dynamic movement of a flowing river. For desired density, shrubs should be planted so they are edge to edge at full size. For example in a grouping of shrubs with a 3' spread, the shrubs should be planted 3' apart within the designated swath. The **suggested plant list** notes the expected spread of each plant.

The legend below corresponds with the suggested plant list. For example the dark yellow ● areas and brown ● areas should be planted with two different shrubs chosen from the suggested **DESERT shrubs**, such as fernbush and rubber rabbitbush. Thus all dark yelllow ● areas would all be dense swaths of fernbush.

SUGGESTED PLANT LIST

* UTAH NATIVE
\+ May be cold sensitive. Check with local nursery for suitability in Green River.

DESERT

Perennials & Small Flowering Shrubs

Bridge's Penstemon*

Penstemon rostriflorus
Height: 2' Spread: 2'
Evergreen shrub with red flowers June-July. Alternatives: *Penstemon eatonii** or *Ipomosis aggregata**.

Dorr's Sage*+

Salvia Dorii
Height: 1.5' Spread: 2.5'
Gray-leafed shrub with blue flowers in April. More cold hardy alternative: *Penstemon sepalulus**.

Navajo Tea*

Thelesperma ambiguum
Height: 2' Spread: 2'
Mounded form with Yellow daisy-like flowers from May-June.

Silver Sage +

Salvia argentea
Height: 3' Spread: 2'
Large silver-woolly leaves with spikes of white flowers from June-July.

Shrubs

Fernbush*

Chamaebatiaria millefolium
Height: 5' Spread: 5'
Semi-evergreen with leaves that resemble ferns. White flowers in fall.

Rubber Rabbitbrush*

Chrysothamnus nauseosus
Height: 3' Spread: 3'
Semi-evergreen with golden flowers Aug. to Sept. Prune to keep looking good.

Littleleaf Mountain Mahogany*

Cercocarpus intricatus
Height: 4' Spread: 3'
Evergreen. Needs well-drained soil.

Black Sage Brush*

Artemesia nova
Height: 2' Spread: 1.5'
Alternative: Fringed sage *(Artemeia frigida)**.

Textural "Shrubs"

Harriman Yucca*

Yucca harrimaniae
Height: 3' Spread: 3'
Spiny evergreen. Plant away from walking paths. Alternative Less sharp, non-native, *Yucca flaccida 'Ivory Tower'*.

Bluestem Joint Fir

Ephedra equisetina
Height: 4' Spread: 3'
Evergreen with wiry bluish stems. Alternative: Mormon Tea (*Ephedra viridis*)*, a native cousin with green stems.

Bear Grass *+

Nolina microcarpa
Height: 4' Spread: 6'
Evergreen that looks like a grass, but a member of the agave family.

Alkali Sacaton*

Sporobolus airoides
Height: 2' Spread: 4'
Clumping grass with fluffy gold pannicles June to Sept. Alternative: Needle and thread (*Hesperostipa comata)**.

ENHANCED DESERT

Ground Covers

Yarrow

Achillea millefolium
Height: 1.5' Spread: 1.5'
Multiple varieties with a wide range of flower colors. Try 'Paprika' or 'Pink Grapefruit.' Blooms June-Sept.

Catmint

Nepeta x faassenii 'Select Blue
Height: 1' Spread: 1.5'
Grey-green foliage with long lasting purple flowers from May to Sept. This variety is sterile.

Sulfur Flower Buckwheat*

Eriogonum umbellatum
Height: 1' Spread: 2'
Ground cover with sulfur-yellow ball-like clusters of flowers from June to August. Leaves turn copper in winter.

Blue Flax*+

Linum lewsii
Height: 2' Spread: 1'
Feathery habit with light blue blossoms May to June. More cold hardy alternative: Poppy-mallow (*Callirhoe involucrata)*.

Perennials & Grasses

Idaho Fescue*

Festuca idahoensis 'Siskiyou Blue'

Height: 2' Spread: 2'
Bluish clumping grass. Alternative: The greener Atlas Fescue *(Festuca Mairei)*.

Orange Butterfly Weed*

Asclepsia tuberosa
Height: 2' Spread: 1.5'
Wildflower with bright green leaves and orange flowers from June to August.

Indian Grass

Sorghastrum nutans 'Sioux Blue'

Height: 4' Spread: 2.5'
Mounding grass with stalks of tan inflorescences Aug. - Sept.

Sunset Hyssop

Agastache rupestris
Height: 3' Spread: 1.5'
Wispy perennial with red-orange flowers from Aug. to first freeze.

Shrubs

Leadplant

Amorpha canescens
Height: 3' Spread: 5'
Bushy shrub with long plumes of purple flowers July-Sept.

English Lavender

Lavandula angustifolia
Height: 2' Spread: 3.5'
Compact shrub with fragrant purple flowers June-Aug. Alternative: Russian Sage *(Perovskia atriplicfolia)*.

Pitcher Sage*

Salvia azurea var. grandiflora
Height: 4' Spread: 3'
Uprignt shrub with spikes of blue flowers Aug. to Sept. Alternative: Rocky Mtn Penstemon *(Penstemon strictus)**.

Creeping Mahonia*

Mahonia repens
Height: 2' Spread: 3'
Low-growing broad-leaf evergreen.

CONCEPTUAL PLANTING PLAN

TREE/TALL SHRUB PLANTINGS

For shade, visual interest, and screening, tall shrubs and trees serve as an overstory canopy. All three zones: Oasis, Enhanced Desert, and Desert have tall shrubs and trees. Shade is particularly important in the Oasis turf areas where people will be spending the most time and in the Enhanced Desert areas that surround the parking lot to keep cars cool.

The suggested plant list corresponds with the legend below. Trees or tall shrubs of **one kind** should be planted together to create unity of the spaces. For example all the shade trees around the **public event space** would be one type, such as Cimmaron Ash.

Healthy looking, full grown, existing trees are shown on the conceptual planting plan.

SUGGESTED PLANT LIST

* UTAH NATIVE

ENHANCED DESERT / DESERT

Tall Shrubs

New Mexico Privet*

Forestiera neomexicana

Height: 9'
Spread: 12'
Water Requirements: Very low

Quick growing, bright green, deciduous, multi-stemmed shrub. Good for screening. Yellow color in fall. Shape improves as it grows; Prune to give the appearance of a small tree.

Siberian Peashrub

Caragana arborescens

Height: 15'
Spread: 15'
Water Requirements: Very low

Upright deciduous shrub with oval form and bright green color. Yellow pea-like flowers bloom June to July. Extremely cold and drought tolerant.

Utah Serviceberry*

Amelanchier utahensis

Height: 11'
Spread: 8'
Water Requirements: low

Large rounded deciduous shrub with clumping grey-green foliage. Stunning show of white flowers from May to June. Alternative: Alder-Leaved Serviceberry *(Amelanchier alnifolia)*.

Hop Tree

Ptelea trifoliata

Height: 15'
Spread: 15'
Water Requirements: low

Deciduous shrub/tree with shiny dark green leaves and small light green flowers in June.

Accent Trees

Bigtooth Maple*

Acer grandidentatum

Height: 25'
Spread: 50'
Water Requirements: Low / Moderate

Also known as Wasatch Maple. Deciduous multi-stemmed tree that can be trained to single stem. Beautiful fall color.

Netleaf Hackberry*

Celtis reticulata

Height: 25'
Spread: 15'
Water Requirements: Very low

Deciduous tree that may be unruly or scraggly when young and more graceful with age.

Utah Juniper*

Juniperus osteosperma

Height: 20'
Spread: 10'
Water Requirements: Very low

Evergreen tree extremely drought and cold tolerant. Non-native Rocky Mountain Juniper (*Juniperus scopulorum*).

Purpleleaf Chokecherry

Prunus virginiana 'Schubert' Canada Red

Height: 25'
Spread: 15'
Water Requirements: Low

Small deciduous tree whose leaves emerge green in spring and mature to dark purple by late summer. Showy white flowers in spring.

OASIS

Shade Trees

Cimmaron Ash

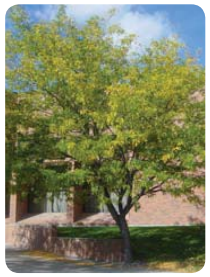
Fraxinus pennsylvanica 'Cimmzam'

Height: 50'
Spread: 25'
Water Requirements: Moderate

Symmetrical oval shaped tree with high canopy. Quick growing and long lived. Spectacular fall color. No seeds. Plant in lawn areas.

Honeylocust

Gleditsia tricanthos inermis



Height: 30'
Spread: 30'
Water Requirements: Low

Rounded deciduous tree with open silhouette. This variety does not have thorns and normally does not produce seedpods.

Common Hackberry

Celtis occidentalis

Height: 50'
Spread: 45'
Water Requirements: Low

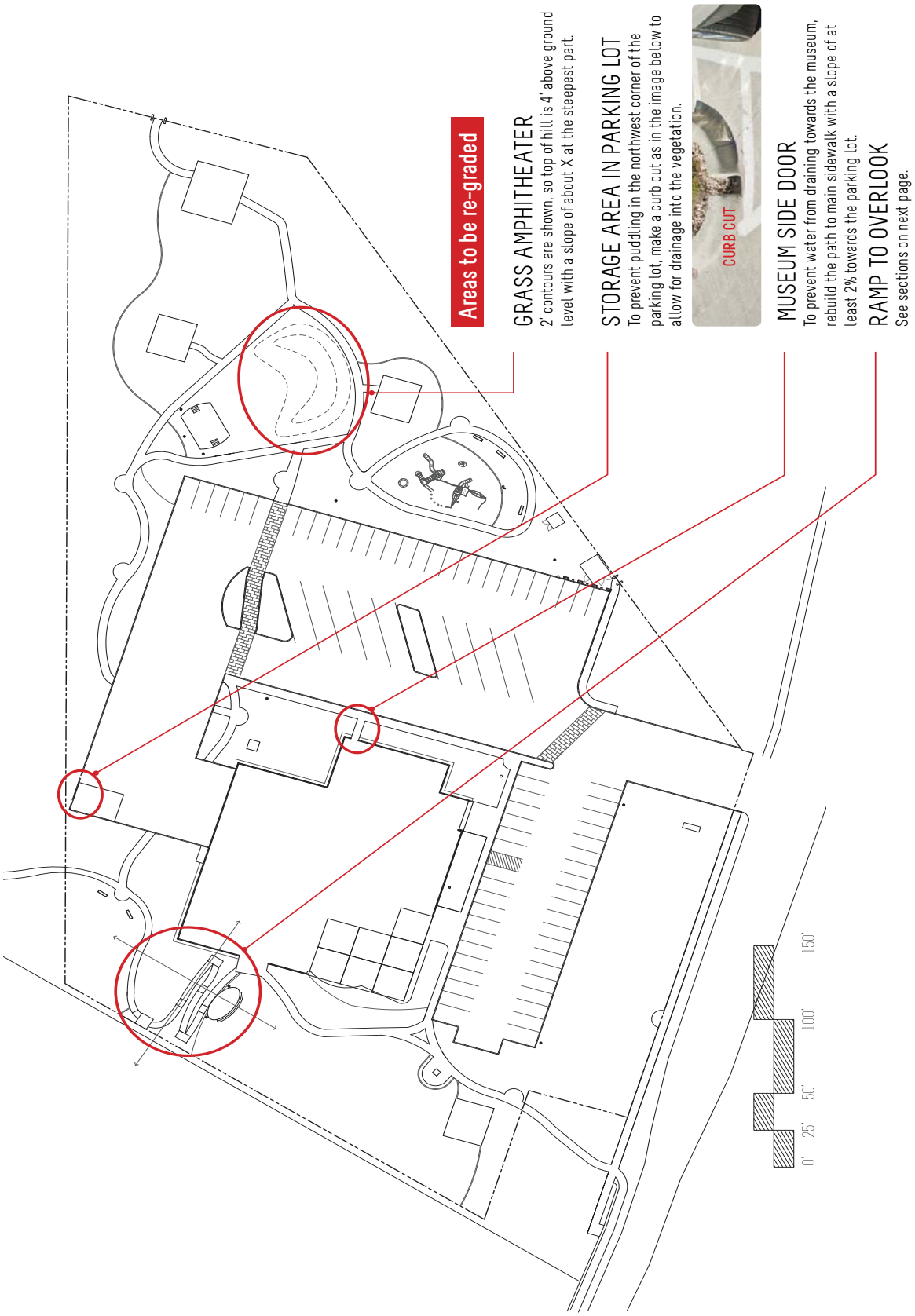
Deciduous tree with broad-oval shape and corky rough bark. One of the best non-native trees for planting in Utah.

Pinyon Pine*

Pinus edulis

Height: 25'
Spread: 12'
Water Requirements: Very low

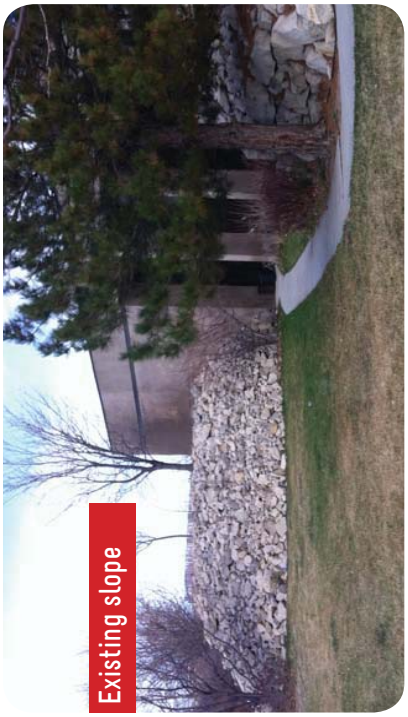
Slow-growing long lived native evergreen similar to the Austrian Pines currently growing in the property. Alternative: Austrian Pine.



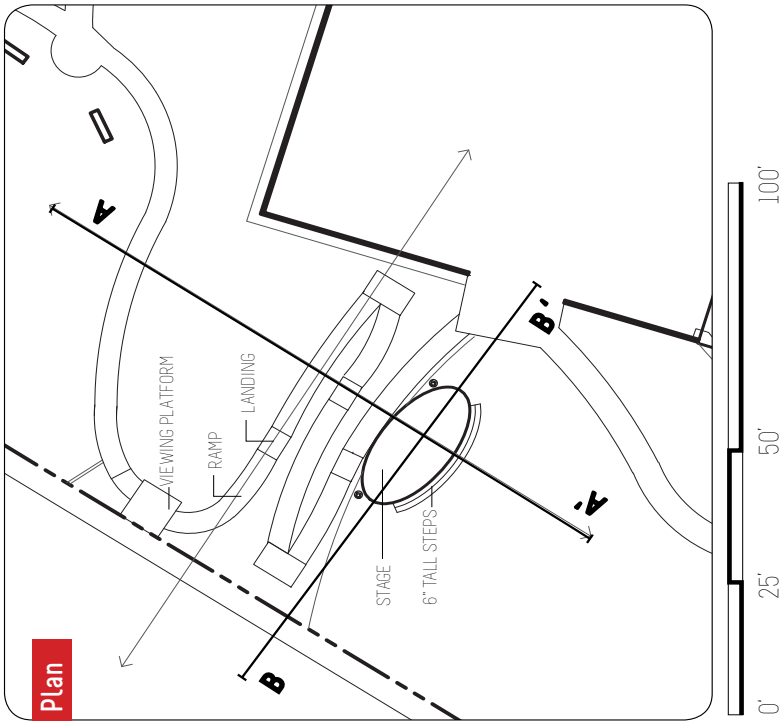
CONCEPTUAL GRADING PLAN

CONCEPTUAL GRADING PLAN

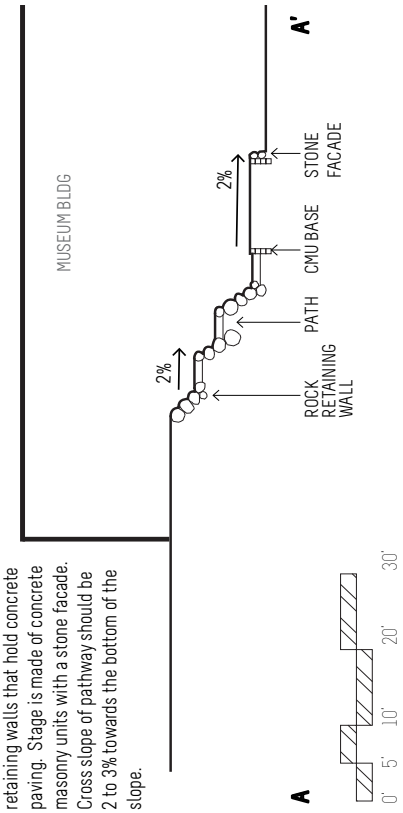
RAMP TO RIVER OVERLOOK



Existing slope

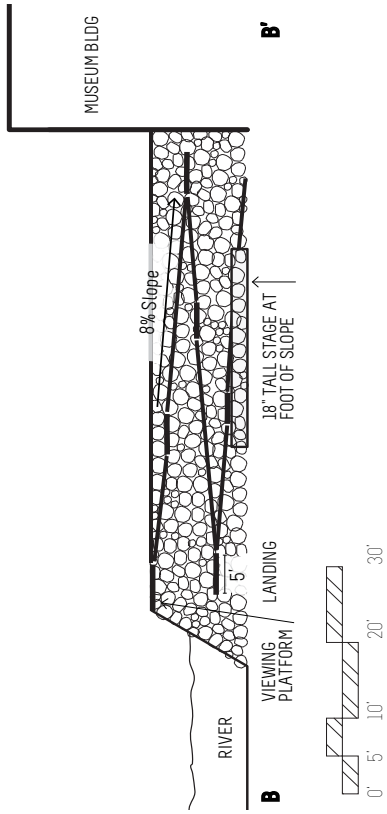


Plan



Cross-Section

Slope is re-graded using stones already on property to create retaining walls that hold concrete paving. Stage is made of concrete masonry units with a stone facade. Cross slope of pathway should be 2 to 3% towards the bottom of the slope.



Section

Path is composed of ramps no greater than 30' in length with 5' landings between. Ramp slopes are 12:1 or 8%.

Appendix D

9-24-14

This is a letter of intent of the businesses in Green River along with the City of Green River to contribute to the funding of the maintenance of trails in Grand County, near the City of Green River up to $1000 a year. We look forward to working with the Moab BLM office in this effort.

Keith Brady
Robbers Roost Motel

TERRY CORPIN REALTOR
GREEN RIVER STABLE
Terry Corpin

Penney Riches
Melon Vine Food Store
Penny

Michele Corrigan
Shady Acres Gas
Michele Corrigan

Travis Bacon
River Terrace INN

Joshua Rawlay
Tamarisk Restaurant

Natalie Hert
Holiday Inn Express Gr. Riv
Natalie Hert

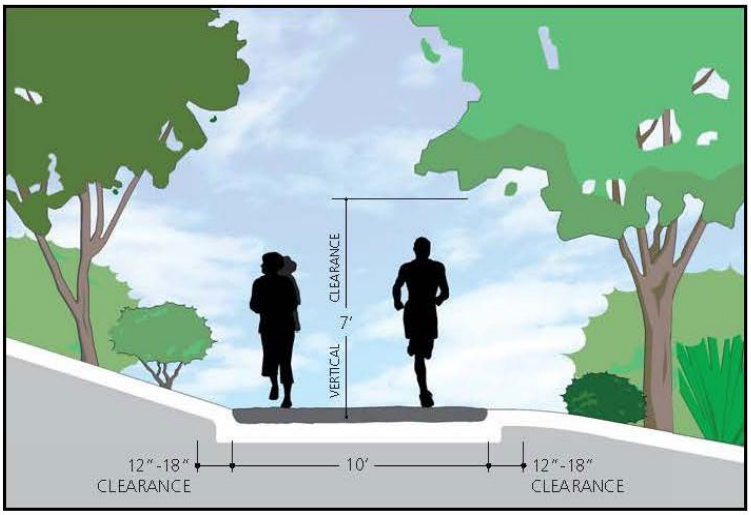
Karen Smith
"G" Hill Self Storage

Cathy Gardner
Ray's Tavern
Cathy Gardner

Patrick M. Beck
Mayor, Green River

Appendix E

Crushed Aggregate Multiple-Use Trails



Typical Features/Uses

- Hiking, Equestrian
- Crushed Stone

Difficulty/Grade

- Easy - 5% avg, 15% max
- Moderate - 10% avg, 15% max
- Difficult - 15% avg, >15% max
- Extremely Difficult - > 20% avg

Design Considerations

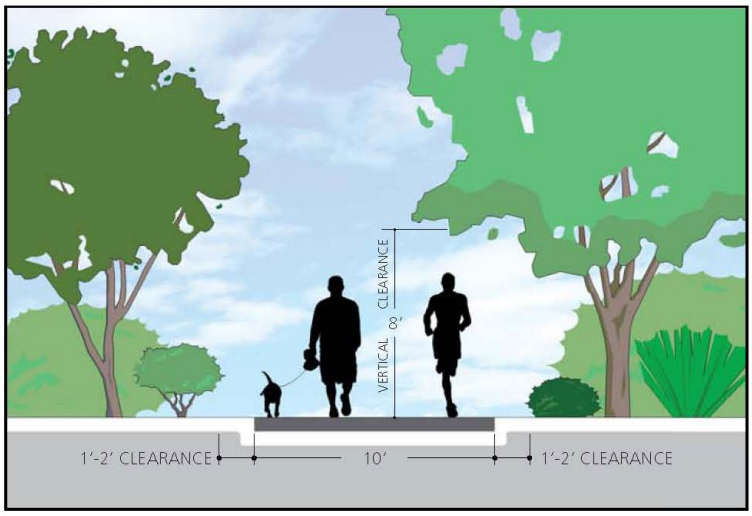
- Create trail sequences and experiences through thoughtfully managing a trails interaction with topography, viewsheds, water features, ecological communities, cultural sites, developed areas, roads, and other trails.
- Primary forces acting upon natural trail surfaces include compaction, displacement, and erosion.
- Utilize a loop trail to enhance user experience.
- Adding interpretation along the trail increases interest.
- Carefully considered tread alignments, site slopes, and tread grades are favored over extensive grading and other mechanical means to create trail.

Construction Recommendations

- Tread Width - 10 feet recommended - 8 feet minimum
- Vegetation Clearance - 7 feet vertical and 1-1.5 feet horizontal
- Sloped 2-5% to downhill side
- Weed barrier recommended

Courtesy: "ADA-compliant dirt and gravel paths" Akos Szoboszlay, Modern Transit Society

Paved Multiple-Use Trails



Typical Features/Uses

- Hiking, Biking
- Asphalt or Concrete

Difficulty/Grade

- Easy - 5% avg, 15% max
- Moderate - 10% avg, 15% max
- Difficult - 15% avg, >15%
- Extremely Difficult - > 20% avg

Design Considerations

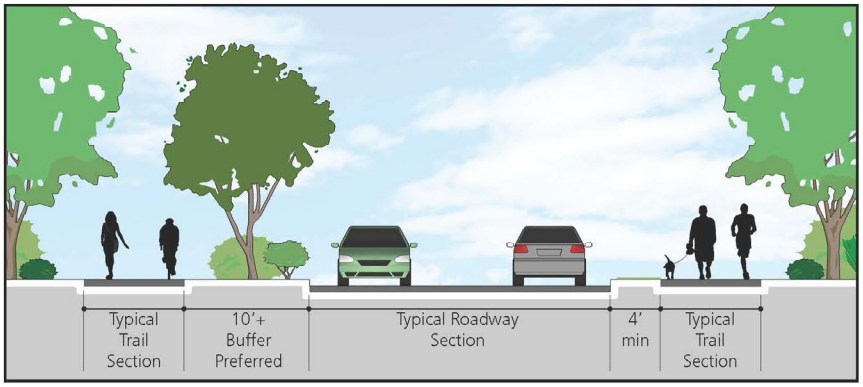
- Create trail sequences and experiences through thoughtfully managing a trails interaction with topography, viewsheds, water features, ecological communities, cultural sites, developed areas, roads, and other trails.
- Integrate trails with Safe Routes to School.
- Utilize trails to connect open spaces, parks, destinations, city centers, and other trails.
- Add interpretation along the trail to increase interest and provide opportunities for environmental education.
- Promote trail use by installing trail amenities including benches, restrooms, water fountains, etc.

Construction Recommendations

- Tread Width - 10 feet recommended - 8 feet minimum
- Vegetation Clearance - 8 feet vertical and 1-2 feet horizontal
- Sloped 2% to downhill side
- Design Turns - 8-12 feet radius
- Obstacles - smooth, no obstacles, protrusions < 2"

Courtesy: Adam Cornette, utilitycycling.org

Paved Multiple-Use Trails in Right-of-Way



Typical Features/Uses

- Hiking, biking
- Asphalt or concrete

Difficulty/Grade

- Easy - 5% avg, 15% max
- Moderate - 10% avg, 15% max
- Difficult - 15% avg, >15%
- Extremely Difficult - > 20% avg

Design Considerations

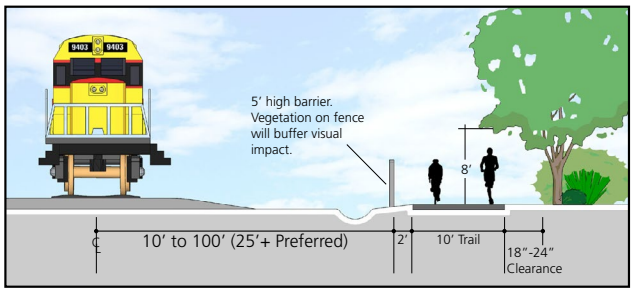
- Create trail sequences and experiences through thoughtfully managing a trails interaction with topography, viewsheds, water features, ecological communities, cultural sites, developed areas, roads, and other trails.
- Integrate trails with Safe Routes to School.
- Increasing buffer between trail and roadway traffic increases user experience and safety.
- Utilize trails to connect open spaces, parks, destinations, city centers, and other trails.
- Add interpretation along the trail to increase interest and provide opportunities for environmental education.
- Promote trail use by installing trail amenities including benches, restrooms, water fountains, etc.

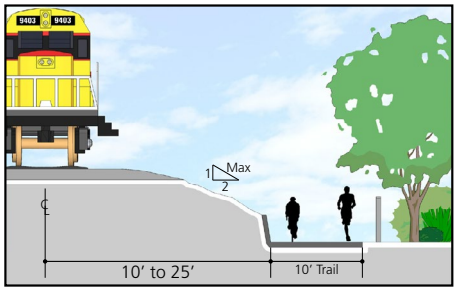
Construction Recommendations

- Tread width: 5' minimum, 8'+ preferred
- Vegetation clearance: 8 feet vertical, 1-2 feet horizontal
- Median buffer width: 4' minimum, 10'+ preferred
- Sloped 2% to downhill side
- Design turns: 8-12 feet radius
- Obstacles: smooth, no obstacles, protrusions < 2"

Courtesy: Jim Olsen, utahhikes.net

Multiple-Use Trail in a Rail Corridor





Typical Features/Uses

- Hiking, biking
- Asphalt or concrete

Difficulty/Grade

- Easy - 5% avg, 15% max
- Moderate - 10% avg, 15% max
- Difficult - 15% avg, >15%
- Extremely Difficult - > 20% avg

Design Considerations

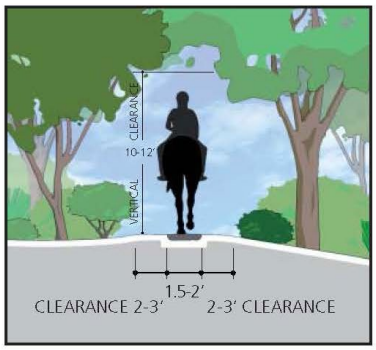
- No national standards exist for rails with trails situations. Information provided here is from "Rails-with-Trails: Lessons Learned" from the U.S. Department of Transportation.
- Maximize the setback between rail track and trail. Setback distance should be determined based on speed and frequency of train. Setback distance can be reduced with grade separation.
- Fencing dimension and material should adhere to rail company standards when on railroad property.
- At-grade crossing should be minimized or eliminated by other crossing alternatives.
- Divert trails around railroad tunnels.

Construction Recommendations

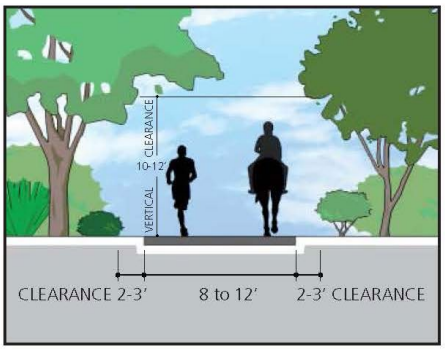
- Tread width: 10 feet
- Vegetation clearance: 8 feet vertical, 1-2 feet horizontal
- Trail setback: 10 to 100 feet, 25+ feet preferred
- Sloped 2% away from track
- Barrier fence (5 feet high) with vegetation (preferred)
- Obstacles: smooth, no obstacles, protrusions < 2"

Courtesy: Rails-To-Trails Conservancy

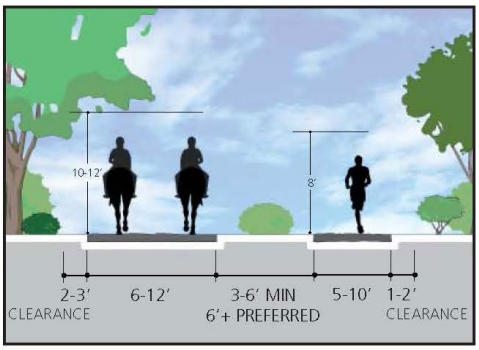
Equestrian Trails



Single-track Trail



Shared-Use Trail



Shared-Use, Separate Tread Trails

Design Considerations

- Provide trailheads with adequate space for offloading and parking of horse trailers. Other trailhead features include signage, maps, restrooms, water, and mounting blocks.
- A system of looped trails offers variety and rides of different lengths. Include destinations such as natural features, viewpoints, or historical sites.
- Cyclists and horses can coexist on shared-use trails, but in areas with high use, separated trails may be preferable to reduce conflict.
- Natural materials such as native soil, wood chips, or crushed gravel with fines are best for trail surfaces. Pavement provides little traction and is not generally suitable for equestrian use.
- Vegetation on the side of the trail that is taller than 30 inches should be trimmed or removed to prevent entanglement, allow horses to maneuver, and improve sight distances.

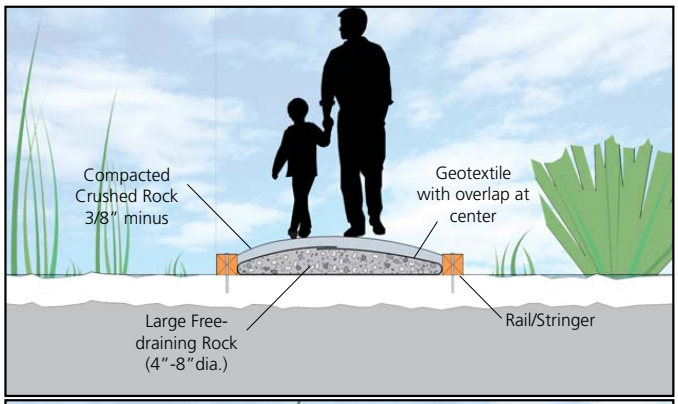
Construction Recommendations

- Tread width: single track 1.5–2 feet, double track 6–12 feet
- Horizontal clearance: 2–3 feet on either side of tread
- Vertical clearance: 10 feet minimum, 12 feet preferred
- Sight distance: 50–100 feet (for two way traffic)
- Turns or curves: minimum radius of 5 feet
- Grade: target range 0-10%, max 10% sustained; up to 20% for short segments less than 200 feet

For more information, see US Forest Service publication *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*

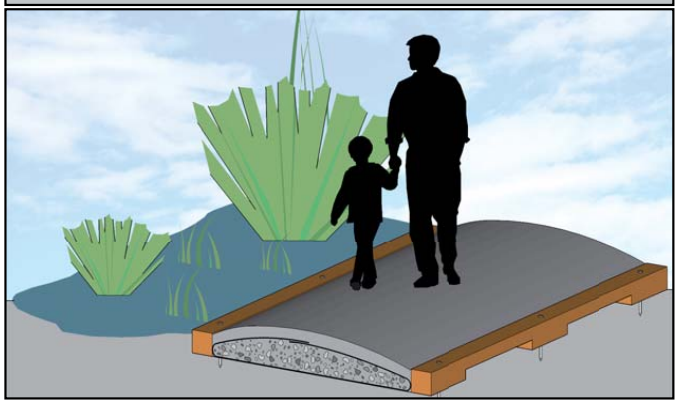
Courtesy: americantrails.org

Wetland Trail



Typical Features/Uses

- Walking
- Log/Rock Retainer, Geotextile, Geocell (optional), Rock/Gravel
- For use in boggy/wetland situations
- Low-cost alternative to boardwalks



Typical Rail Construction

- Generally built with 6"x 6" or 8"x 8" timbers
- Rail may be built up with 2"x 6" or 2"x 8" boards instead of being notched
- Rail anchored with rebar

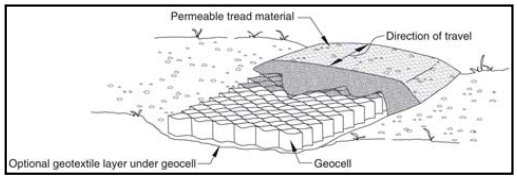
Design Considerations

- Turnpike method is utilized to raise the elevation of a trail in wet areas. This method is a less expensive alternative to boardwalks.
- Utilize culverts to carry water under and away from trail to preserve natural circulation.
- Encapsulation, or the sausage technique, utilizes geotextile and gravel or rock to provide drainage between the trail surface and the existing grade to ensure the trail surface remains as dry as possible.
- Logs or rocks (preferred) are used as retainers. If logs are used, ensure that they are naturally decay resistant.
- This method is preferred in bog situations, not where periodic river flooding occurs.

Construction Recommendations

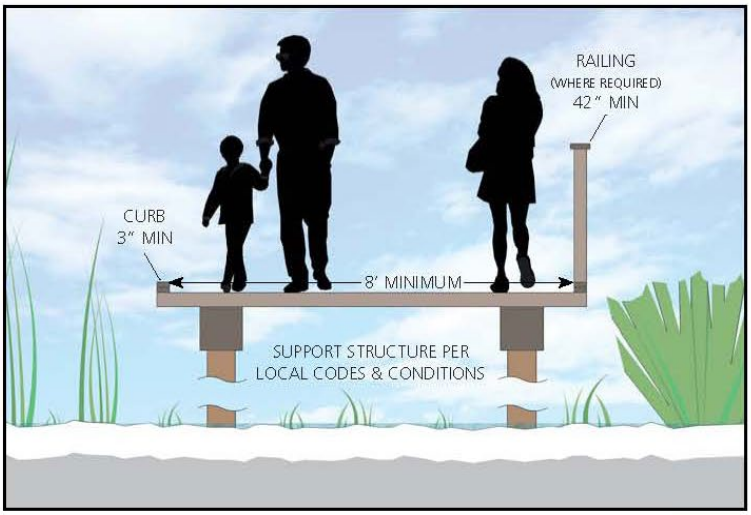
- Tread Width - 6 feet
- Side Slope - 2% minimum
- Vegetation Clearance - 8 feet vertical and 1-2 feet horizontal
- Resource: "Wetland Trail Design and Construction" (2007) by Robert T. Steinholtz and Brian Vachowski, USFS
- Resource: "Geosynthetics for Trails in Wet Areas" (2008) by J. Groenier, S. Monlux, and B. Vachowski, USFS

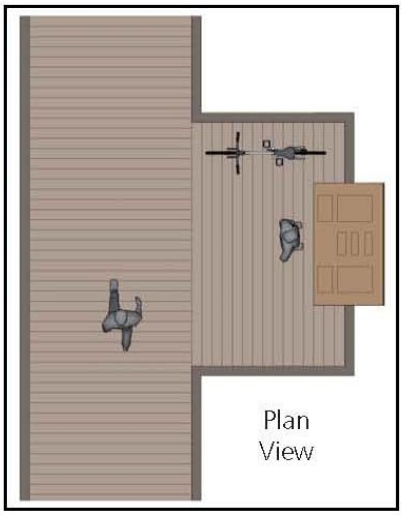
An alternative to the solution described above is to utilize Geocell. Geocell helps hold fill material in place which may be necessary in areas where potential for flooding is possible.



Courtesy: U.S. Forest Service

Wetland Boardwalk Trail





Provide interpretive pull-outs on longer sections of wetland trails.

Design Considerations

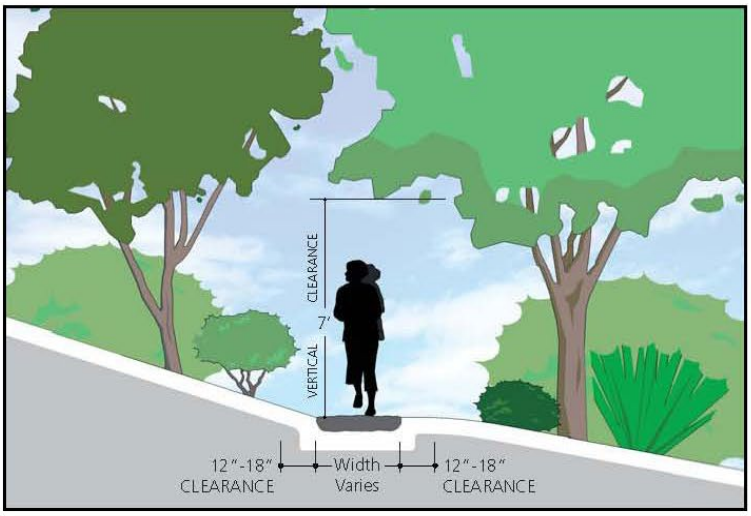
- Elevated boardwalks allow for trail access through environmentally sensitive areas with minimal impact.
- Special consideration should be given to the height of the boardwalk as well as any potential hazards to determine if a railing is necessary. If the danger is determined to be minimal, utilize a curb.
- There are many different support structure designs and a wide range of site conditions. Therefore, local codes and assessment of site conditions should be the determining factor in developing a support structure design for the boardwalk.

Construction Recommendations

- Tread Width - 8 feet minimum
- Vegetation Clearance - 8 feet vertical and 1-2 feet horizontal
- Design Turns - 8-12 feet radius
- Obstacles - smooth, no obstacles, protrusions < 2"
- Materials include lumber, synthetic lumber, and metal
- Resource: "Wetland Trail Design and Construction" (2007) by Robert T. Steinholtz and Brian Vachowski, USFS

Courtesy: AmericanTrails.org

Single Track Trail



Typical Features/Uses

- Hiking, Biking
- Natural Surface

Difficulty/Grade

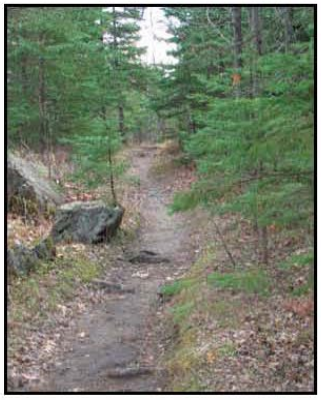
- Easy - 5% avg, 15% max
- Moderate - 10% avg, 15% max
- Difficult - 15% avg, >15% max
- Extremely Difficult - > 20% avg

Design Considerations

- Create trail sequences and experiences through thoughtfully managing a trails interaction with topography, viewsheds, water features, ecological communities, cultural sites, developed areas, roads, and other trails.
- Primary forces acting upon natural trail surfaces include compaction, displacement, and erosion.
- Utilize a loop trail to enhance user experience.
- Adding interpretation along the trail increases interest.
- Carefully considered tread alignments, site slopes, and tread grades are favored over extensive grading and other mechanical means to create trail.

Construction Recommendations

- Tread Width - Varies depending on use type
- Vegetation Clearance - 7 feet vertical and 1-1.5 feet horizontal
- Sloped 2-5% to downhill side
- Full bench construction required on steep terrain



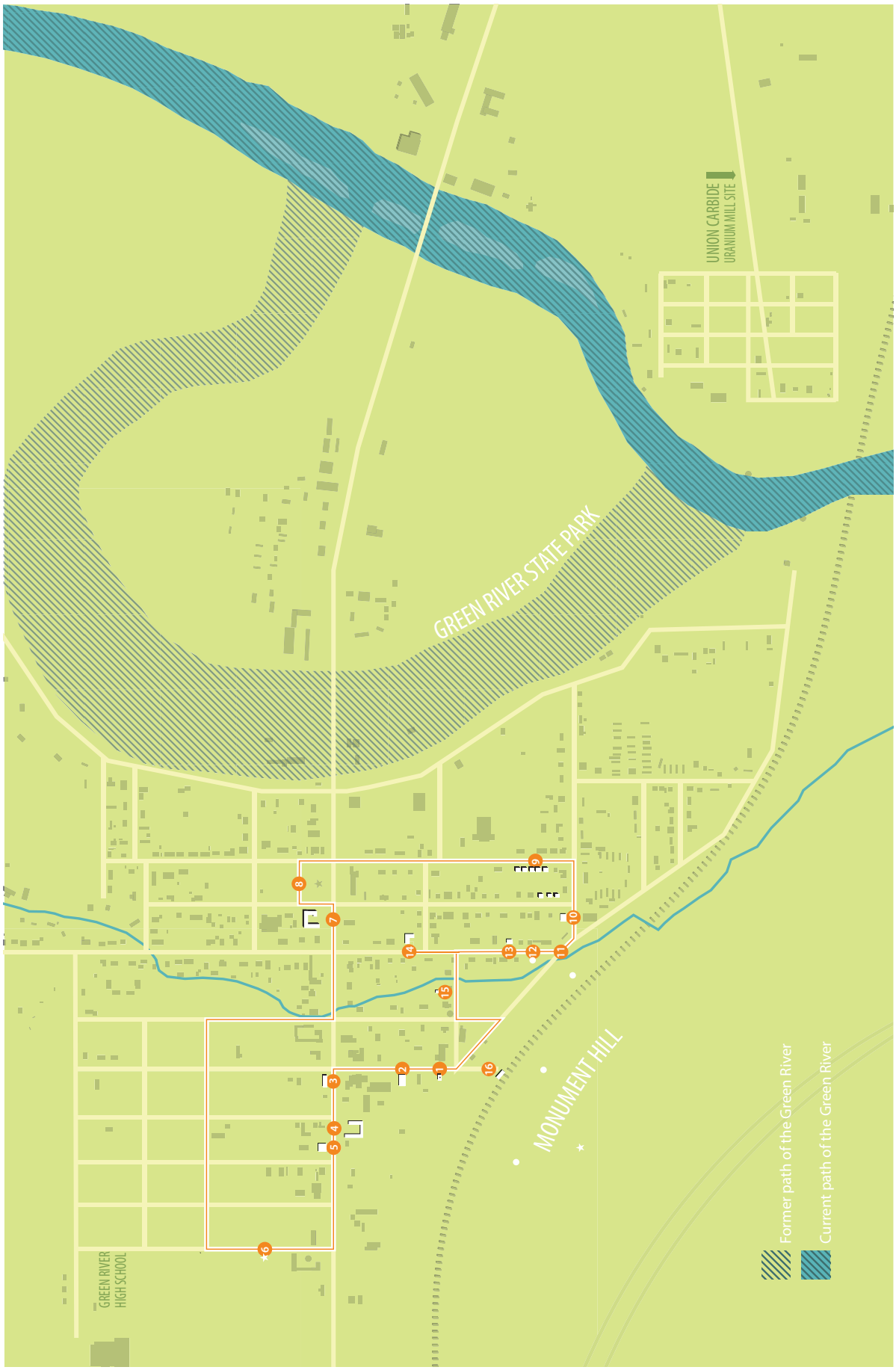
Courtesy: "Trail Planning, Design, and Development Guidelines" Minnesota Department of Natural Resources

Appendix F

CAFE
green river
HISTORIC MAPPING
evan rimoldi_epicenter_gr archives

1932 Green Family Collection

1910 Midland Hotel


GREEN RIVER STATE PARK
UNION CARBIDE
URANIUM MILL SITE
MONUMENT HILL
GREEN RIVER
HIGH SCHOOL
1
2
3
4
5
6
7
8
9
10
11
12
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14
15
16
Former path of the Green River
Current path of the Green River

Appendix G

8/26/2014

SNAP :: View and Print Map

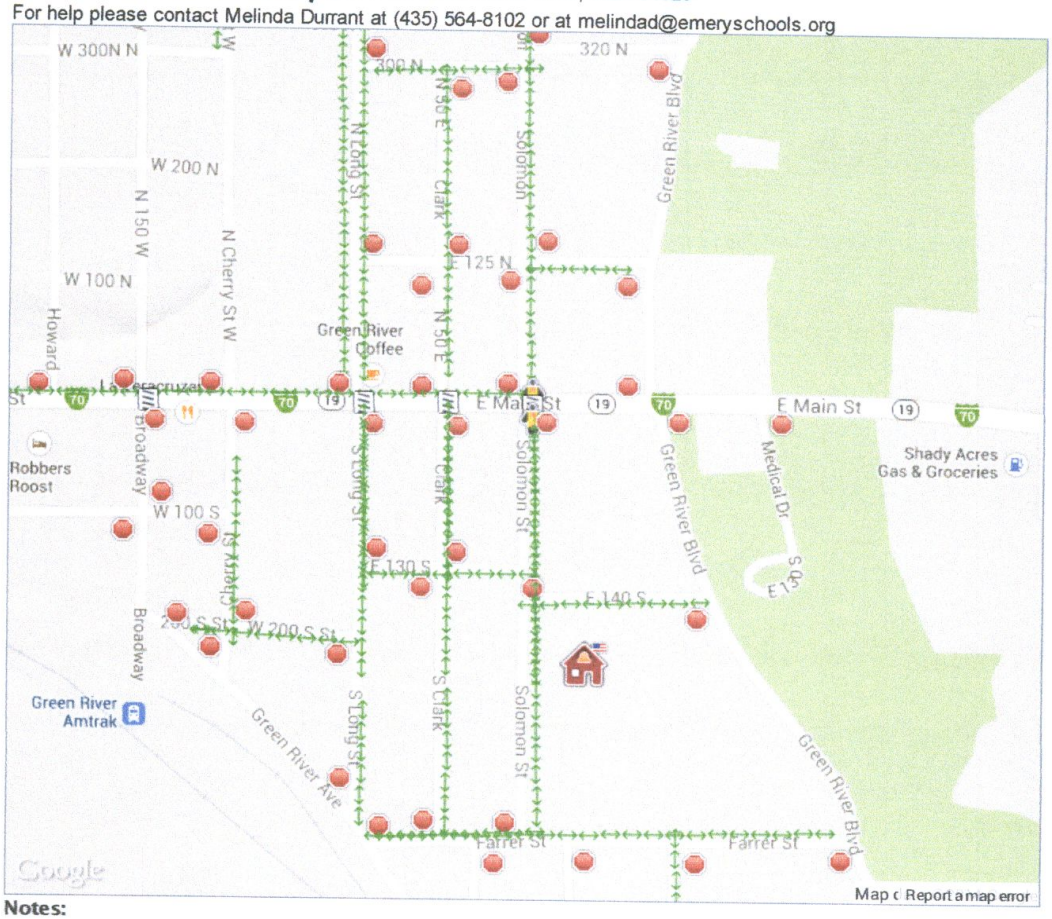
SNAP™
Student Neighborhood Access Program

Close Window | Print Page

Map Only | Text Description Only | Show All

Book Cliff Elementary 205 S Solomon Green River, Utah 84525

For help please contact Melinda Durrant at (435) 564-8102 or at melindad@emeryschools.org



Notes:

Para ver esta página en English - Español

Print Size: (8.5" x 11" - 11" x 17")

Route Key

Damaged/No Sidewalk	Safest Walking Route

Icon Key

School	Crossing Guard
Crosswalk-Vertical	Stop Sign
Yield Sign	

Text Description:

http://www.snapforschools.com/Map_view.aspx?EntityID=1036

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Economic Benefits of Trails

National Park Service
Rivers, Trails, & Conservation
Assistance Program

PROPERTY VALUES AND TRAILS

Trails have become a desirable amenity as more and more people place importance on easy access to trails and recreation near their home. As a results of trails becoming more popular, they have also become a positive influence on property values.

• Studies in Denver, Seattle, Minnesota and other communities across the country have consistently found that proximity to trails increases the value of homes from 1-6.5%. (Source: American Hiking Society. The Economic Benefits of Trails Fact Sheet. 2004.)

• A 2004 study of trails in Indiana revealed that 14% of the estimated sales price for property within one-half mile of a multi-use trail was attributable to the property's relationship to the trail. It is estimated that for a property valued near $93,000, the portion of its value resulting from its proximity to the trail would be nearly $13,000. (Source: Property Values, Recreation Values, and Urban Greenways. Available at http://staff.washington.edu/kwolf/Archive/Classes/ESRM304_SocSci/304%20Soc%20Sci%20Lab%20Articles/Lindsey_2004.pdf

• A1998 report from Wisconsin looked at property values of lots in a newly developed subdivision and determined positive outcomes on property values. Lots directly adjacent to a nature trail sold for roughly 9% more than similar lots not adjacent to the trail. Realtors also noted that lots adjacent to the trail sold immediately, while other lots took more time to sell. (Source: Recreation Trails, Crime, and Property Values: Brown County's Mountain-Bay Trail and the Proposed Fox River Trail. Available at http://fyi.uwex.edu/winnebagopcn/files/2012/08/BrownCountyPlanningCommission.pdf)

Source: RTCA Salt Lake Field Office

Source: www.jordanrivercommison.org

Source: www.pix.nbay.com/

PROPERTY MARKETABILITY AND TRAILS

Many studies have indicated that trails have a positive effect on the marketability and desirability of property and homes. Real estate agents have also come to regard urban trails as an amenity, and studies show that in general homes sell faster and for more when they are located adjacent to trails. (Source: The Economic Benefits of Trails and Greenways. 2006. Available at http://www.railstotrails.org)

• A survey concerning the Bonneville Shoreline Trail showed that 82% of respondents believe proximity to the trail would make it easier to sell their property, and 88% believe the presence of the trail has improved the quality of the neighborhood. (Source: Bonneville Shoreline Trail: Public Opinion Survey Summary Report,Weber County, Utah – January 2003)

• A 2002 survey by the National Assoc. of Home Builders and the National Assoc. of Realtors found that respondents ranked walking, jogging, or biking trails as the second most important community amenity, placing trails ahead of 16 other options such access to shops, business centers, or parks. (Source: Consumer's Survey on Smart Choices for Home Buyers. Available at http://www.nahb.com/news/smartsurvey2002.htm)

• A 2001 survey of trails in a rural and small town areas of Nebraska indicated that 68% of people surveyed found newly constructed trails to have a positive effect on the community. Probing further, the study also revealed that of those who had purchased or occupied a home during trail's implementation, nearly a quarter reported the trail as having a positive effect on their decision to purchase a home in the area. (Source: Nebraska Rural Trails: Three Studies of Trail Impact. Available at http://www.americantrails.org/resources/adjacent/NebRuralTrStudy.html)