

Partnership Case Study

North Moab Recreation Areas Alternative Transportation Project

December 2010



This document was prepared for the Paul S. Sarbanes Transit in Parks Technical Assistance Center by David Evans and Associates, Inc.

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ACKNOWLEDGMENTS

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FOREWORD

December 2010

We are pleased to present this Partnership Case Study for the North Moab Recreation Area's Transportation Project. It is one of many case studies spearheaded by the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TAC).

Launched in 2009, the TAC reaches out to federal land managers interested in developing or enhancing alternative transportation options, and provides them with the information, training and guidance they need to make these projects a reality. One element of this approach is to showcase innovative and successful initiatives in other federal land units.

One of the TAC team's first projects was to identify and conduct case studies to report on partnerships implemented at federal land management units. The case studies focused on federal land units that partnered with other agencies to implement, operate or integrate alternative transportation systems. TAC team members conducted site visits and developed reports (including this one) that analyze and document effective strategies and lessons learned from these partnership experiences.

We believe that these case studies will serve as instructive models for federal land managers who are new to transportation deployment and management. We also hope that the creative, collaborative strategies highlighted here will inspire other units where alternative transportation projects have been stalled by fiscal, operational, or jurisdictional challenges.

Finally, we'd like to express our appreciation to the Federal Transit Administration for their sponsorship of the TAC. We also wish to express our appreciation to staff of the National Park Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the USDA Forest Service. We would especially like to thank the North Moab Recreation Area staff for their time and input on this case study, as well as everyone else who contributed their time and hard work to these case study reports.



Steve Albert, TAC Director



Phil Shapiro, TAC Deputy Director

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EXECUTIVE SUMMARY

The North Moab Recreation Area is located in the City of Moab, Grand County, Utah. Tourism is Grand County economy's most important resource. Many of Moab's 2.5 million visitors come because of ample opportunities to bike and hike. However, due to the lack of safe, viable alternative transportation opportunities, visitors must drive to their desired destinations. Growing visitation and congestion on the local highways have created safety issues for both drivers and cyclists.

The North Moab Recreation Areas (NMRA) Alternative Transportation Project is an integrated motorized and non-motorized transit system that includes two transit hubs served by private shuttle businesses, 42.5 miles of bike paths and lanes, and a bicycle/pedestrian bridge across the Colorado River. This project is an example of a partnership between several agencies and organizations.

The transportation facilities developed through this project are expected to receive about 500,000 annual visits (based upon 2.5 million total visits to the Moab area) and alleviate at least 20% of the area's traffic congestion. The NMRA grew out of these needs, with a goal to create a system of continuous bike lanes and/or non-motorized multi-use paths connecting Moab with State Route (S.R.) 128, State Highway (S.H.) 191, Arches and Canyonlands National Parks, Dead Horse State Park, and the thousands of acres of surrounding Bureau of Land Management (BLM) public lands. The NMRA system will consist of the Moab Canyon Trail along S.H. 191 and the Colorado Riverway Trail along S.R. 128, as well as two transit hubs: the Arches National Park Transit Hub and the Lions Park Trail and Transit Hub, where the bike paths intersect and cross the Colorado River via a bicycle/pedestrian bridge. The Arches National Park Transit Hub, Colorado Riverway Bridge, and the Porcupine Rim trail S.R. 128 underpass are complete. Bicyclists and pedestrians will eventually be able to access about four miles of the Colorado River on multi-use paths, which will provide a safe route back to Moab. The popular Porcupine Rim mountain bike trail will safely route bicyclists under S.R. 128 as part of the Colorado Riverway Trail, rather than directly onto the roadway.

The project's many partners and private donors include:

- Bikes Belong
- Bureau of Land Management
- Federal Transit Administration
- Grand County and its agencies
- Lions Club
- Moab City
- Moab Trails Alliance
- National Park Service
- Trail Mix
- Utah Department of Transportation

All local land agencies have been involved in the project due to the vast amount of public lands in the area; the majority of the land in Grand County is Federal and state managed. Monthly meetings among stakeholders, since 2000 through an organization called Trail Mix, have made an immense contribution to this project's success. Trail Mix was formed in 1999 and includes all area land managers and representatives of different types of recreational users. Trail Mix monthly meetings have proven a productive forum to discuss non-motorized trail issues, set priorities, and schedule work. These meetings continue to offer a setting where all stakeholders can come together to resolve issues on a regular basis. Grand County sanctions and an annual sponsorship of \$10,000 provide support and legitimacy to Trail Mix, which helps keep the group intact.

Lessons Learned

- Identify a unifying goal among partners.
- Create a master plan.
- Collect supporting data.
- Use technical expertise and resources within the partner agencies as often as possible.
- Identify a project champion and delegate tasks to multiple individuals if necessary.
- When creating a project cost estimate, always overestimate, especially if project development is long-term.
- Seek multiple sources of funding to help persuade agencies to become involved.
- Create a meeting environment that fosters respect.
- Keep lines of communication open and represent all interests; bring all the partners together.
- Use public involvement mechanisms to secure community support.
- Coordinate efficient trail maintenance.
- Provide a forum for resolving trail misuse and enforcing rules.
- Establish a proven record of success.

What's Next?

The partners continue to meet to carry the project forward through Trail Mix. Future partnership activities will focus on project maintenance and identifying issues that need to be resolved.



MOAB CASE STUDY

INTRODUCTION

Managers of public lands are implementing alternative transportation systems (ATS) in exciting and innovative ways. Learning about those programs can help fellow land managers meet their own transportation challenges by successfully deploying ATS solutions. Partnerships with local governments, non-profit groups, and commercial interests have consistently proven to be vital components in these successful ATS deployments. To expand knowledge about outstanding ATS projects in parks and public lands, the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TAC) is assembling a set of case studies. Each study will highlight the successes experienced and examine the lessons learned by the land

management units. Case study reports, such as this one, describe alternative transportation projects and partnerships that can be used as models by other land agencies interested in implementing ATS in their jurisdictions.

WHAT IS A CASE STUDY

Case Studies are designed to reveal arrangements and actions taken by a land management team in developing ATS systems for their land unit. The studies describe the transportation challenge, the ATS solution and the steps taken to reach the successful outcome, and cover all aspects of organizing, planning, designing, funding, and implementing ATS. They pay special attention to the characteristics of successful partnerships, such as those between a public land unit, local friends groups, and non-profit organizations.

WHY WAS THIS CASE STUDY SELECTED?

Case studies are selected based on existing successful programs and partnering arrangements identified by the TAC, Federal Transit Administration (FTA), federal land management agencies, and a peer group. They are selected based on several criteria. Each selection demonstrates a unique collaboration among federal land agencies, non-profit interest groups, nearby communities, private businesses, and public or private transportation service providers. Other considerations include multimodal integration,

system complexity and funding, intergovernmental cooperation, geographic/topographic setting and regional diversity.

The North Moab Recreation Areas Alternative Transportation Project (NMRA) is an example of a partnership between several agencies and organizations, including Grand County, Utah; the City of Moab; the Bureau of Land Management (BLM); Utah Department of Transportation (UDOT); the National Park Service (NPS); and other state and local organizations. The project is an integrated motorized and non-motorized system that includes two transit hubs served by private shuttle businesses, 42.5 miles of bike paths and lanes, and a bicycle/pedestrian bridge across the Colorado River. The NMRA is expected to enhance safety, ease congestion, and increase business opportunities for private shuttle/tour operators and bicycle rental companies.

WHAT IS THE PAUL S. SARBANES "TRANSIT IN PARKS" PROGRAM?

The Paul S. Sarbanes Transit in Parks Program (Transit in Parks), formerly the Alternative Transportation in Parks and Public Lands (ATPPL) Program, is a federal financial assistance program that annually awards grants to carry out projects that provide alternative transportation planning, facilities and services that enhance existing transportation systems in national parks and public lands. Alternative transportation means transportation by bus, rail, or other conveyance including facilities for pedestrians, bicycles, and watercraft.

WHAT IS THE PAUL S. SARBANES "TRANSIT IN PARKS" TECHNICAL ASSISTANCE CENTER (TAC)?

Under the auspices of the Transit in Parks program, the Federal Transit Administration created the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TAC). It provides federal land managers with an expanded set of readily-available tools to meet the goals of Transit in Parks, which are to conserve natural, historical, and cultural resources, reduce congestion and pollution, and improve visitor access and experience.

The TAC provides information, training, and technical support on alternative transportation systems (ATS) for federal land managers, offering them a single point of contact/one-stop shop for desired services. Specific services include person-to-person technical liaisons, a Help Desk (helpdesk@triptac.org or 877-704-5292) and website (www.triptac.org), training workshops, a peer mentoring program, and an online system to help public land managers find documents, technical manuals and other resources. This case study represents one of the resources developed for TAC clients.

NORTH MOAB RECREATION AREAS



Moab Canyon Trail along S.H. 191 where it crosses the entrance to Arches National Park.

National Parks, Dead Horse Point State Park, and the famous Slickrock Bike Trail. The extraordinarily scenic and diverse landscape, the accessibility of two major river systems (the Colorado and Green Rivers), the presence of interesting cultural and paleontological resources, and the opportunities for a wide range of recreational activities have made the Moab area very popular for those seeking outdoor experiences. The area hosts 2.5 million visitors annually, many of whom come to walk, hike, or bicycle on the 1.8 million acres of public lands. Recreational opportunities range from casual sightseeing and hiking to more physically demanding activities such as mountain biking, rock climbing, and river running. Non-motorized user groups (walking, hiking, biking, and rafting) comprise a substantial majority of Moab's visitors. As a result, tourism has become Grand County's most important economic resource^{1,2}.

Grand County provides access to millions of acres of outdoor recreation on federal and state lands. Grand County does not operate parks, although it does own a park on the Colorado River north of Moab, which is operated by the local Lions Club. According to the Utah Department of Community and Economic Development, 71.7% of the county's 2,363,594 acres is managed by the federal government; 15.5% is owned by the state; 4.4% is American

Located in the heart of the Colorado Plateau, the Moab Field Office encompasses 1.8 million acres of scenic canyon country. The North Moab Recreation Areas ATS does not refer to a specific BLM unit name. This name has been referenced in several documents, including the 2008 Transit in Parks grant application and the Guide to Promoting Bicycling on Federal Lands.

The NMRA is located in the City of Moab, Grand County, Utah. The county has fewer than 10,000 residents, representing one of the lowest population densities per square mile in the state. Moab, the county seat, is the largest town in southeastern Utah, with fewer than 5,000 people and the county's only source of restaurants and lodging^{1,2}.

The public lands that surround Moab comprise an internationally recognized recreation destination. Moab is the gateway to Arches and Canyonlands

Indian tribal land; and 4.3% is private. The BLM manages 66% of all the land in Grand County; the NPS manages 3.2%; the U.S. Forest Service (USFS) manages 1.2%, and the U.S. Department of Defense manages .08%. The state and federal governments manage 94% of Grand County's total land area³.

Table 1 *Table 1: Principal Outdoor Recreation Sites in Grand County Area* shows the area's primary outdoor recreation sites, the land manager for each, and activities available.

Table 1: Principal Outdoor Recreation Sites in Grand County Area

AREA	LAND MANAGER	ACTIVITIES AVAILABLE
Arches National Park	National Park Service	sightseeing, hiking, picnicking, camping
Canyonlands National Park	National Park Service	sightseeing, hiking, picnicking, camping
Deadhorse Point State Park	State of Utah	sightseeing, camping
La Sal Mountains	Manti-La Sal National Forest	camping, fishing, snowmobiling, cross-country skiing, hunting, mountain biking, backpacking
Sand Flats	Community Sand Flats Team, BLM	sightseeing, mountain biking, four-wheeling, camping
Colorado River	BLM	rafting and other boating activities, camping, fishing
Colorado Riverway	State of Utah and BLM	rafting and other boating activities, camping, fishing
Lions Park	Grand County/ Lions Club	picnicking, meetings, reunions, trail hub, parking

Credit: Grand County 2004.

Although visitation occurs throughout the year, the area experiences a high number of seasonal visitors and an intense demand for recreational activities. Peak seasons include both spring and fall, with spring bringing the most visitors to the area. The spring season begins in February and lasts through May, and the fall season begins in September and lasts through November. Spring and fall visitors engage in a full range of recreation activities, including scenic driving, camping, hiking, jeeping, mountain biking, canoeing and rafting, rock climbing, off-highway vehicle (OHV) and dirt bike riding, and horseback riding. Summer visitation is mainly associated with river-related activities and touring the nearby National Parks (Arches and Canyonlands). However, the summer season also brings large numbers of visitors who engage in sightseeing activities, such as driving through the public lands and viewing the landscape from scenic overlooks, and some hiking and biking².

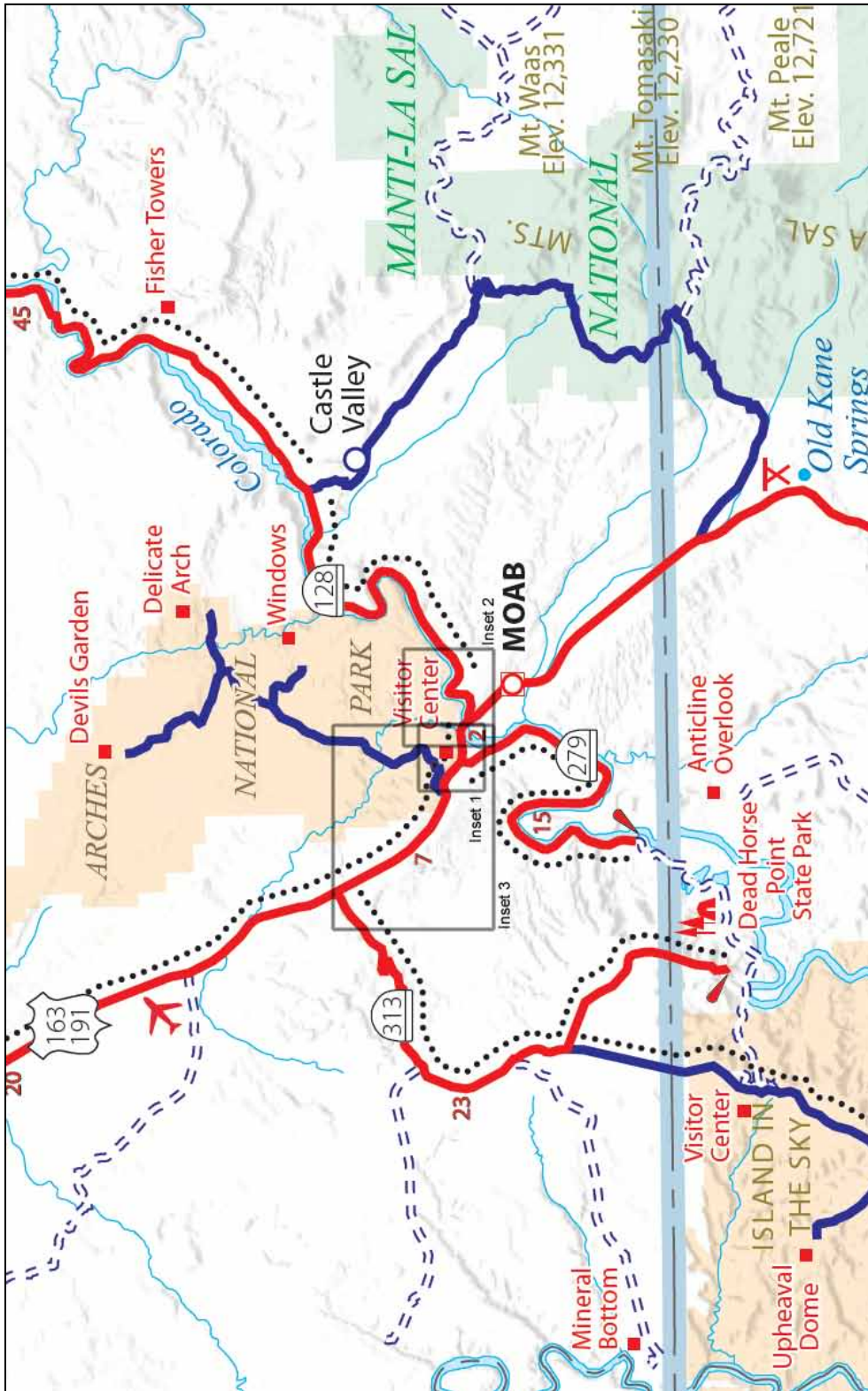
Access to and from Moab, as well as the area's popular attractions, is provided primarily by four major transportation routes. State Highway (S.H.) 191 connects Moab to Interstate 70 to the north and to San Juan County and points south. As shown on the Project Area Map, Utah 313 takes visitors to Dead Horse Point State Park and the Island in the Sky unit of Canyonlands National Park. Utah 279 serves the potash mine west of Moab. Utah 128, a

designated Scenic Byway, serves ranches, lodging, recreational opportunities, and destination resorts along the Colorado River and Castle Valley. State and federal highways are maintained by the Utah Department of Transportation³.



The City of Moab with the La Sal Mountains in the background.

NORTH MOAB RECREATION PROJECT AREA



Credit: U.S. Department of Transportation, [State Map](#) 2006. USDOT 2008.

NORTH MOAB RECREATION AREAS TIMELINE

1929	Arches National Monument is established.
1971	Arches National Monument is upgraded to a National Park, and begins to draw more tourists to the area.
1999	Grand County Trail Mix, a local organization involving members of the public and all area land managers, is formed to develop and maintain non-motorized recreation trails.
2000	Trail Mix begins to meet monthly to discuss non-motorized trail issues, set priorities, and schedule work.
	In Grand County, tourists spend \$99.2 million, a decrease of 2.1% from 1999. Nonetheless, Grand County ranks 7th among 29 Utah counties for tourist dollars spent.
2003	Moab Trails Alliance, a non-profit supported by local businesses, is created to write grants for the North Moab Recreation Areas Alternative Transportation System and other non-motorized trails and pathways.
2004	The Utah State University Extension Service develops the Lions Park Design Concept Plan.
	US 191 Underpass and Trail are completed with \$350,000 from UDOT.
2005	Grand County creates the <i>Grand County Non-Motorized Trails Master Plan</i> (updated March 2008).
2007	The transit hub at Lions Park receives a Paul S. Sarbanes Transit in Parks grant of \$774,000.
2008	The Moab Trails Alliance approaches the National Park Service's Rivers, Trails and Conservation Assistance program for help in revising the Lions Park Design Concept Plan.
	The Lions Park Planning Group (LPPG) begins working to transform the five-acre trail and transit hub into the town's gateway park.
	Colorado River Bike/Pedestrian Bridge is completed with \$3,740,000. Colorado Riverway Trail (SR 128) Phase One is completed with \$844,377. The Bridge and first phase of the Colorado River Trail project opens in May. Phase 2 is awarded a Paul S. Sarbanes Transit in Parks grant of \$3 million.
	<i>Grand County Non-Motorized Trails Master Plan</i> is updated by Trail Mix.
	"Project Proposal for Fiscal Year 2008 Funds" for Phase 2 of the Colorado River Trail is submitted to and awarded funds by FTA.
2009	Grand County creates a transportation special services district (TSSD) in November, which will fund some maintenance on the paved trail infrastructure county-wide, and Moab City agrees to provide maintenance on the trail hub portion of Lions Park.
2010	The Old Highway part of the Moab Canyon Trail project goes to bid in April with a completion date of September.
	Grand County creates an agreement between four different agencies, including the TSSD, to fund the maintenance of the paved trail infrastructure of Grand County. The old Highway section of the Moab Canyon Trail opens in October. The LPPG and Moab City hire a landscape consultant to create construction documents for the Lions Park Trail Hub
2011	The City of Moab and Grand County partner to fund the match for the federal enhancements grant for the NMRA component from the Lions Park Trail and Transit Hub to Moab City limits. UDOT incorporates this into their pavement rehab project.
Date unknown	The City of Moab develops a partnership with Grand County, the BLM, UDOT, and others in applying for funds to complete the infrastructure for the NMRA.
	The BLM applies to the state for FHWA federal transportation funds that are distributed to each state.
Ongoing	Moab Trails Alliance, representing local governments and land managers, continues grant writing to complete the infrastructure for the NMRA.

HISTORICAL CONTEXTS AND TRENDS



Visitors come to enjoy the area's scenery, such as this view of Arches National Park and the La Sal Mountains from the Klondike Bluffs trail.

Historically, the dominant sectors of the Grand County economy were agriculture and resource extraction. In fact, the uranium boom of the 1950s brought the first real population expansion to the area. However, the impact of tourism has grown steadily over the last 30 years, and now ranks as the county's most important economic sector.

The National Parks, Monuments, and Recreation Areas are a major draw for tourists. Currently, Arches National Park ranks 10 out of

the top 25 Utah tourist attractions and received 996,312 visitors in 2009. Canyonlands ranks 17 out of the top 25 tourist attractions and received 436,241 visitors the same year³. In addition, Moab has become Utah's most important center for river running, mountain biking and four-wheel drive recreation.

The growth in visitation has had a significant impact on the economy of Grand County and the city of Moab. Total tourism-related employment expanded by approximately 20% since 1995; approximately 45% — nearly half — of all Moab residents currently earn their living in tourism-related jobs. For example, the Slickrock Mountain Bike Trail, only one of many area trails available to mountain bikers, generates \$1.3 million in annual receipts for the City of Moab¹. Grand County collects tourism-based revenues from transient room tax, restaurant tax, car rental tax, and gross taxable retail sales³. Tourism and recreation are expected to remain important to the county for the foreseeable future³.

EVOLUTION OF THE CURRENT ALTERNATIVE TRANSPORTATION SYSTEM (ATS)

CHALLENGES

Many of Moab's 2.5 million visitors come because the area offers ample opportunities to bike and hike. However, due to the lack of safe, viable alternative transportation opportunities, visitors must drive to their desired destinations¹.

Grand County experiences major limitations in providing adequate transportation service for its 2.5 million annual visitors, most of who arrive in private vehicles. The only public transportation options to Moab are two 19-passenger planes that arrive daily or a bus or train terminal 45 miles away. S.H. 191 is both Moab's Main Street and the only north/south route through eastern Utah. S.H. 191 must accommodate an increasing number of long-haul trucks that travel between Texas/New Mexico and the Pacific Northwest via Salt Lake City. Sections of S.H. 191 near Moab are four-lane and unsuitable for non-motorized use, while other sections are two-lane with narrow shoulders. As S.H. 191 passes Arches National Park, congestion occurs due to traffic entering and leaving the park¹.

Three state highways, all designated as National or State Scenic Byways, intersect S.H. 191 and provide access to popular recreation areas, such as the Colorado River, Canyonlands National Park, BLM-managed recreation lands, and Dead Horse Point State Park. State Route (S.R.) 128 connects I-70 to Moab, entering S.H. 191 just south of Arches National Park and north of the city. Based on UDOT traffic data, approximately 500,000 persons per year drive on S.R. 128, which is situated between sheer cliffs on one side and the Colorado River on the other¹.

Both S.H. 191 and S.R. 128 are very busy and have been identified by UDOT and Grand County as safety hazards for bicycle and pedestrian traffic. During peak spring and fall

weekends, the volume and types of motorized traffic (including long-haul trucks, jeeps, large outfitter vehicles, and motor homes) create unsafe traffic conditions for non-motorized traffic¹.



S.R. 128 has narrow traffic lanes, poor visibility, and no shoulders.

On a busy spring weekend, a motor vehicle driving to Moab via S.R. 128 may pass 80 or more bicyclists using the highway. Currently, drivers must frequently pull into the opposite lane to pass cyclists. S.R. 128 has narrow traffic lanes, poor visibility, and no shoulders. It is neither cost effective nor desirable to widen this national scenic byway. No bicycle/vehicle fatalities have been recorded on these highways in Grand County; however, there have been many accidents. The *Utah Highway 128 Bike Path Feasibility Study (2001)* determined that approximately 26,000 cyclists ride some portion of S.R. 128 annually and that bicycle traffic accounts for about 20% of total highway use during the peak use months of April and May. In addition, the S.H. 191

Colorado River Bridge, a two-lane bridge with no shoulders, constitutes a severe traffic

choke-point and is a major point of conflict between bikes and vehicles, as it is located at the intersection of S.H. 191 and S.R. 128¹.

Parking shortages exist throughout the project area. For example, in Arches National Park, parking congestion occurs at the Devil's Garden, Windows, and Delicate Arch parking areas about 100 days per year¹. The recently expanded and repaved parking lot at the Negro Bill Canyon trailhead on S.R. 128 was filled the first weekend it opened in 2006. Due to severe topographical constraints, parking capacity is at build-out along S.R. 128. The Colorado River is a major scenic attraction, but it is difficult for visitors to view due to a lack of river access. Limited parking prevents visitors from accessing educational and safety information posted on bulletin boards around the area².

No readily available tour service exists for people who arrive without a vehicle and wish to sightsee in the parks or along the river. However, demand for such service exists. The *Arches National Park Transportation Implementation Plan (2006)* proposes "a broader motorized interpretive tour program" to provide an alternative to private vehicle access and travel through the park and to further enhance the visitor experience. The proposed tours would enable visitors to enjoy a 'car free' experience to, from, and within the park"².

SOLUTIONS

The NMRA's alternative transportation goal is to create a system of continuous bike lanes and/or non-motorized multi-use paths connecting Moab with State Scenic Byway Route 128, Dinosaur Diamond National Scenic Byway State Highway 191, Arches and Canyonlands National Parks, Dead Horse Point State Park, and the thousands of acres of surrounding BLM public lands⁴. Visitors using the NMRA system will be able to access the Colorado River and new bicycle/pedestrian bridge, Arches National Park with its visitor center and transit hub, and BLM-managed mountain bike areas¹.

Many participants in public meetings conducted by Arches National Park as part of the *Arches National Park Transportation Implementation Plan (2006)* supported the concept of alternative transportation modes. According to the plan, 39% of visitors surveyed indicated they would



Colorado Riverway bike and pedestrian bridge.

bicycle to park sites if facilities were available; 29% indicated they would bicycle between Moab and the park if a safe route was available; and 50% of visitors indicated they would use a shuttle system at Arches National Park and the surrounding area. Similarly, the *Grand County General Plan Update (2004)* states, “Grand County encourages agencies to resolve conflicts between user groups, particularly where high impact users prevent low impact users from their legitimate use and enjoyment of the public lands for reasons such as noise, dangerous speed, lasting damage to lands and resources, etc.”¹.

In response to these issues, the NMRA ATS will decrease traffic congestion, enhance visitor safety and experience, and reduce motorized trips in the Moab area. The project will enable and encourage the public to use bicycles, ride a shuttle, or walk to popular recreation sites. Infrastructure will be designed to serve all visitors, including the disabled and those without vehicles⁵. Completion of this project will greatly facilitate moving visitors from motels and campgrounds in the North Moab Recreation Areas through the use of shuttle services and safe, convenient, non-motorized routes. The project will also increase business opportunities for private shuttle/tour operators and bicycle rental agencies by allowing existing private shuttle companies to expand their services to a broader area during their off season. Currently area shuttle services cater exclusively to river users primarily during summer months. Equipment that is idle during the general peak visitation months of spring and fall would be applied to new business opportunities as a result of this project¹. The NMRA timeline is shown on page 7.

FEATURES OF THE CURRENT ALTERNATIVE TRANSPORTATION SYSTEM (ATS)

ATS SERVICES

Under the NMRA, several unconnected alternative transportation components will finally be connected, as described in more detail below⁵ (see Figure 1 through Figure 3 on the following pages). The NMRA system will consist of the Moab Canyon Trail along S.H. 191 and the Colorado Riverway Trail along S.R. 128, as well as two transit hubs: the Arches National Park Transit Hub and the Lions Park Trail and Transit Hub, where the bike paths will intersect and cross the Colorado River via a new bicycle/pedestrian bridge. The bridge and transit hubs will serve as the main gathering and dispersal points of the North Moab Recreation Areas. *Table 2: North Moab Recreation Areas (NMRA) – Grand County, Utah Segment Summary – Funding Sources* on page 25 provides a list of individual contributors and contribution amounts.

Just downstream is the site of the replacement vehicle bridge currently under construction by UDOT. The bridge will be complete in spring 2011 for a total cost of \$3.74 million.

BRIDGE AND TRANSIT HUBS

The Arches National Park Transit Hub and Colorado Riverway Bridge are complete. This new pedestrian bridge now links trails on the south and north sides of the Colorado River. The Lions Park Trail and Transit Hub will consist of a park, trail, and transit hub and will be located at the north end of Moab where the Moab Canyon and Colorado Riverway bike paths intersect and the non-motorized bicycle/pedestrian bridge crosses the Colorado River. The city is annexing Lions Park and assuming park ownership in order to develop this area. The park will include two 2-lane pedestrian and bike bridges; one is complete and the other is in progress. The transit hub will include an underpass under S.R. 128 to accommodate a bike path that will travel from Moab to the transit hub, go under S.R. 128, and enter Lions Park. The redesigned park will connect numerous trails, including the Colorado River Trail, the



The Lions Park Trail and Transit Hub will include a park, trail, and transit hub.

Slickrock National Recreation Trail, and a bike trail to Canyonlands National Park and Dead Horse Point State Park. On the south side of S.H. 191, the park's transit hub will serve as a collecting area for commercial and private excursions into the area's extensive trail network⁵.

Since 2002, the Lions Park Planning Group has been working to transform the five-acre trail and transit hub into the town's gateway park, which will highlight the area's recreational opportunities. In 2008, The Moab Trails Alliance (MTA) approached the National Park Service's Rivers, Trails, and Conservation Assistance (RTCA) program, the community assistance arm of the National Park Service, for help revising the Lions Park Design Concept Plan, originally developed in 2002 by the Utah State University Extension Service. Using grant money, the planning group hired a consulting company to turn the design concepts into construction projects, and is developing funding packages to build the park. The Lions Club has also recently become involved in the planning process for the park⁴. In addition to

helping with site and trail design, RTCA is working with the Lions Park group to form a committee to develop interpretive themes highlighting recreational opportunities, as well as natural and cultural resources. As part of this project, approximately 100 acres of the area will become a nature park. Some planting and recontouring of the nature park area has already been accomplished. The transit hub is being funded by a 2007 Paul S. Sarbanes Transit in Parks grant of \$774,000. When the project is completed, the Lions Park Trail and Transportation Hub will be a critical link in the Colorado River recreational trail system, serving as a gateway to Moab and its surrounding public lands^{5, 6, 7}.

MOAB CANYON TRAIL (S.H. 191)

The Moab Canyon Trail starts at the north end of Moab City's bike lane system and will ultimately connect to existing bike lanes along State Scenic Byway S.R. 313. This route is the gateway to Canyonlands National Park, Dead Horse Point State Park, and thousands of additional BLM acres. The Old Highway that roughly parallels S.H. 191 will be converted into a bike path from Moab to S.R. 313 north of town.

Cyclists will be able to ride this path to Canyonlands National Park and Dead Horse Point State Park. Visitors could also combine shuttle transportation and biking to reach their destinations. The Old Highway part of the project went to bid in April 2010, and the completion date is September 2010. This section includes an underpass under S.H. 191 (the Moab Canyon project), which is complete. It also includes a section of paved trail to the Gemini bridges parking lot, and part of the trail past Arches National Park, which are complete as well. UDOT completed these efforts as part of 4-lane widening of S.H. 191. Points of interest along the way include Lions Park Trail and Transit Hub, the Colorado Riverway Recreation Area and new Colorado Riverway bicycle/pedestrian bridge, Arches National Park with its visitor center and transit hub, and the BLM-managed Bar M Mountain Bike Focus Area. Total cost for the Moab Canyon Trail is expected to be 1.63 million, as shown in more detail in *Table 2: North Moab Recreation Areas (NMRA) – Grand County, Utah Segment Summary – Funding Sources* on page 25⁵.



The Old Highway will be converted into a bike path from Moab to S.R. 313 north of town.

COLORADO RIVERWAY TRAIL (S.R. 128)

The Colorado Riverway Trail is a multi-use path that begins at Lions Park and will follow



Phase 1 of the Colorado Riverway bike path has been completed.

the Colorado River upstream for 3.5 miles to the heavily used Porcupine Rim mountain bike trail. As part of the Colorado Riverway Trail, the popular Porcupine Rim mountain bike trail will safely route bicyclists under S.R. 128 via an underpass, which is now complete, rather than directly onto S.R. 128, a busy, two-lane, shoulderless highway situated between sheer cliffs and the Colorado River. In addition to routing cyclists from the Porcupine Rim trail, bicyclists and pedestrians will eventually be able to access about four miles of the Colorado River on this multi-use path, which will provide a safe route back to Moab¹. Special construction measures are required for the remaining sections of this trail due to topographical constraints⁴.

involves the Colorado Riverway Bridge and is complete; the bridge opened on May 16, 2008. One section of the trail paralleling the river from the Lions Park Trail and Transit Hub to Goose Island (1.75 miles) is also complete. Phase 1 of this effort totaled \$844,377, as indicated in *Table 2: North Moab Recreation Areas (NMRA) – Grand County, Utah Segment Summary – Funding Sources*

The work involving S.R. 128 is divided into three phases. The first phase involves the Colorado Riverway Bridge and is complete; the bridge opened on May 16, 2008. One section of the trail paralleling the river from the Lions Park Trail and Transit Hub to Goose Island (1.75 miles) is also complete. Phase 1 of this effort totaled \$844,377, as indicated in *Table 2: North Moab Recreation Areas (NMRA) – Grand County, Utah Segment Summary – Funding Sources*

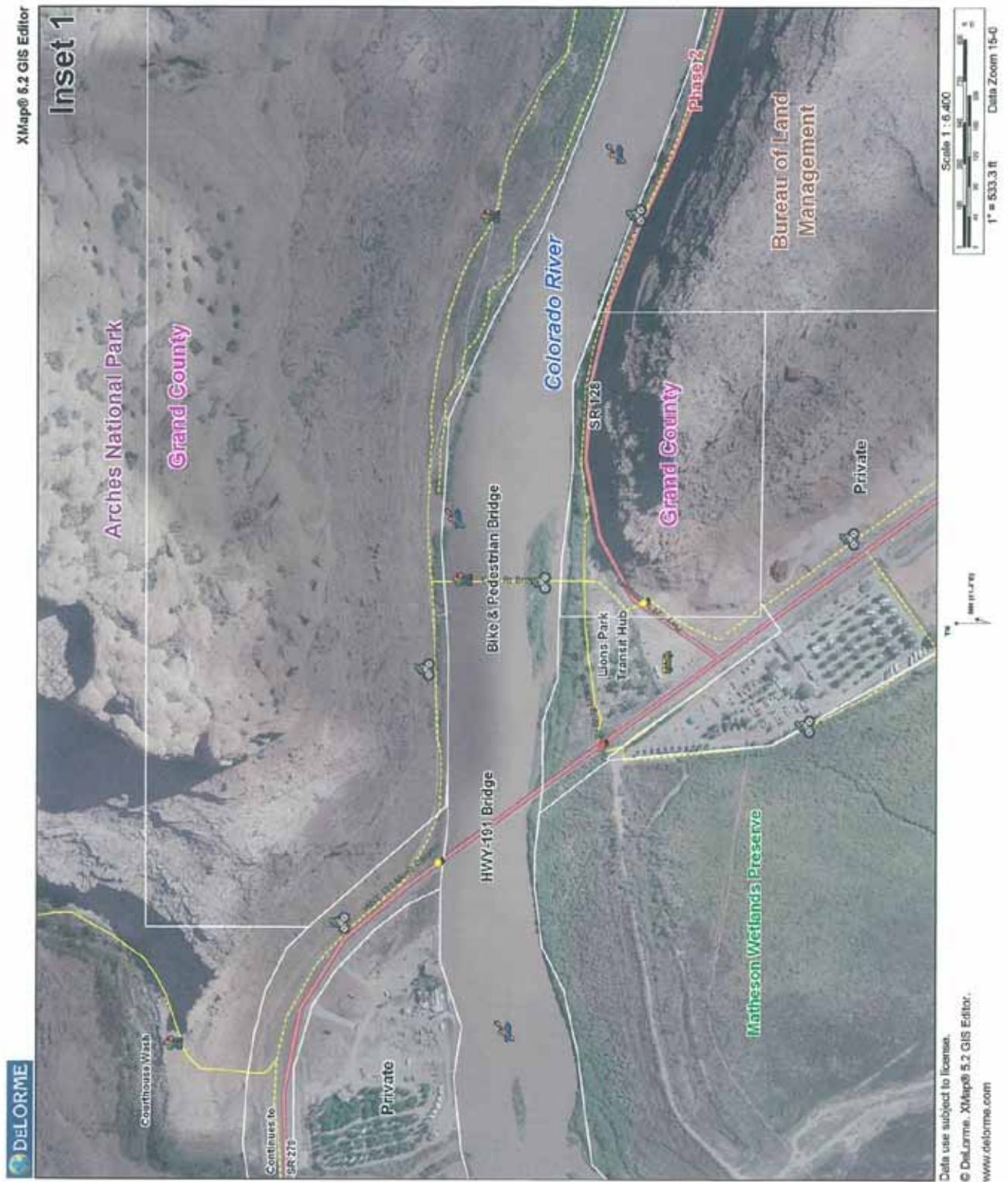
. Phase 2 is fully funded and awaiting final design and construction documents. Under the second phase, a 0.75-mile section of bike path will complete that trail. Phase 2 is being funded by a 2008 Paul S. Sarbanes Transit in Parks grant of \$3 million. Under Phase 3, the bike trail will be extended from Goose Island to the Negro Bill Canyon underpass¹.

The biking and private shuttle components of this project are integrated together. The two transit hubs that comprise the system will be served by private shuttle businesses. Existing private shuttle companies will provide vehicles and tour guides; the project includes no new rolling stock¹. Private shuttle operators will bear the costs of their own operations and capital investments, and will determine their own schedules⁴. Shuttles are expected to be operational during the busy spring and fall seasons; seasons could be expanded based on

future demand¹. No public transportation currently exists in Moab, such as a city bus, into which these components could be integrated.

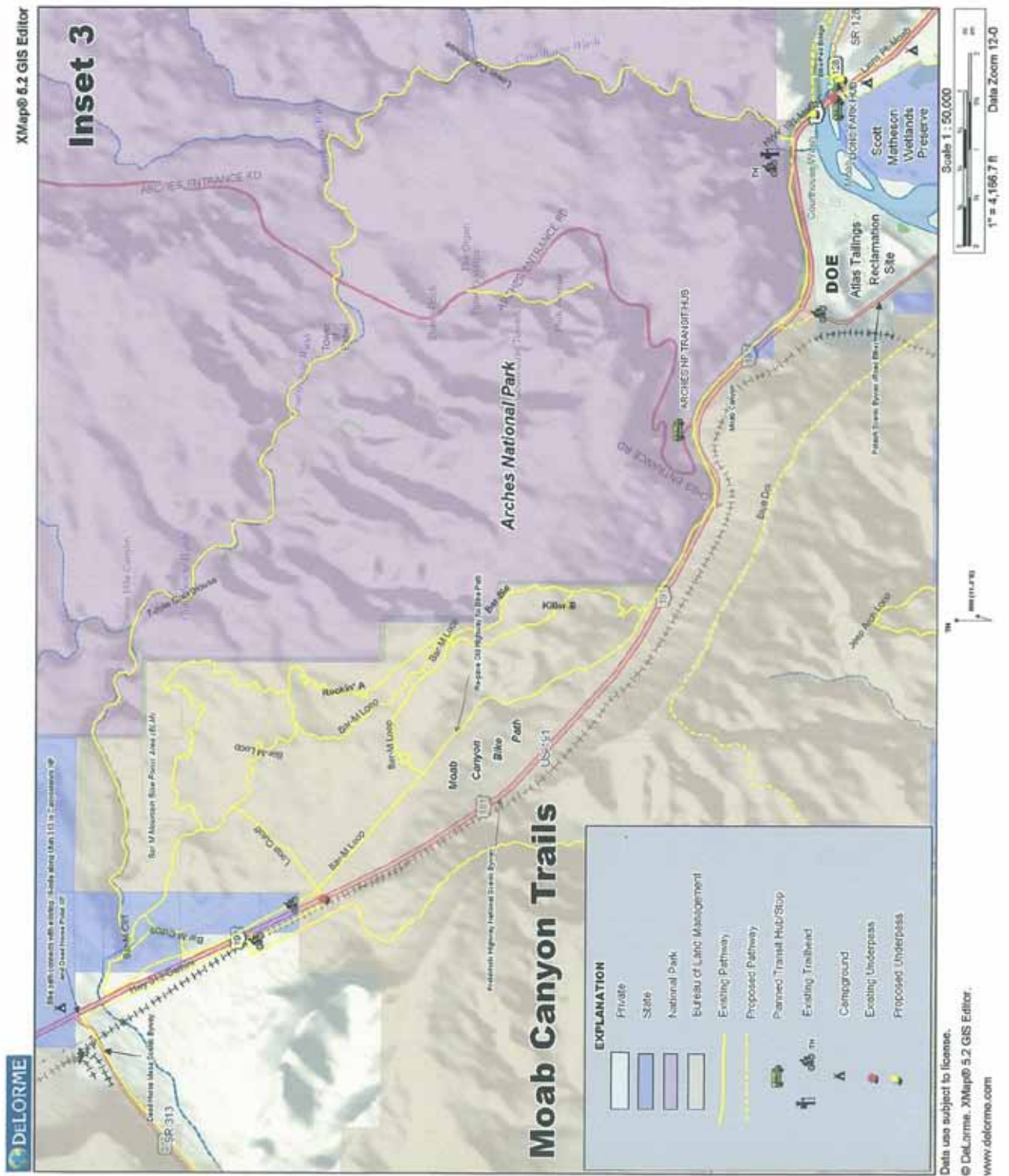
Shuttle route length will vary depending on the destination. For example, from the Lions Park Trail and Transit Hub, routes will range from 3 miles to Negro Bill Canyon, to about 50 miles to Canyonlands National Park's Islands in the Sky District⁴.

Figure 1 Inset 1, Lions Park Trail and Transit Hub and Bike Trails Intersection



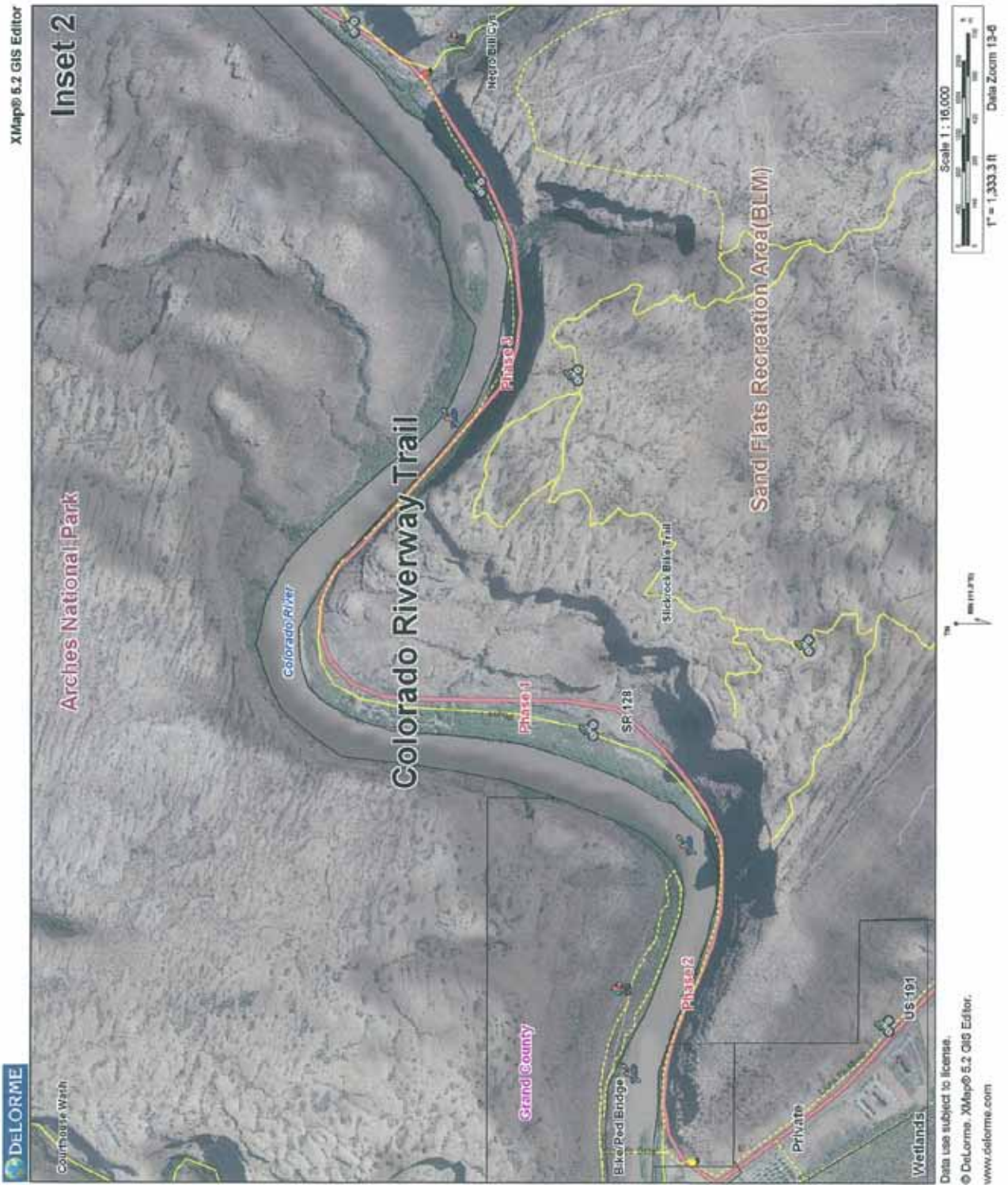
Credit: USDOT 2008

Figure 2 Inset 3, Moab Canyon Trails



Credit: USDOT 2008.

Figure 3: Inset 2, Colorado Riverway Trail



Credit: USDOT 2008.

The completion of the non-motorized trail system and increased private shuttle service will improve visitor education about desert resource protection, as it is easier and safer to stop and read an educational sign while walking or biking. Visitors using shuttle vehicles will have the opportunity to listen to a narrative provided by the driver¹. The Lions Park Trail and Transit Hub will have an extensive interpretive program addressing historical, flora, fauna, and cultural resources. Kiosks and signs will provide information on a variety of themes. Community members may provide interpretive hikes using Lions Park as a starting point⁴.

UTILIZATION



Improved wayfinding will benefit visitors.

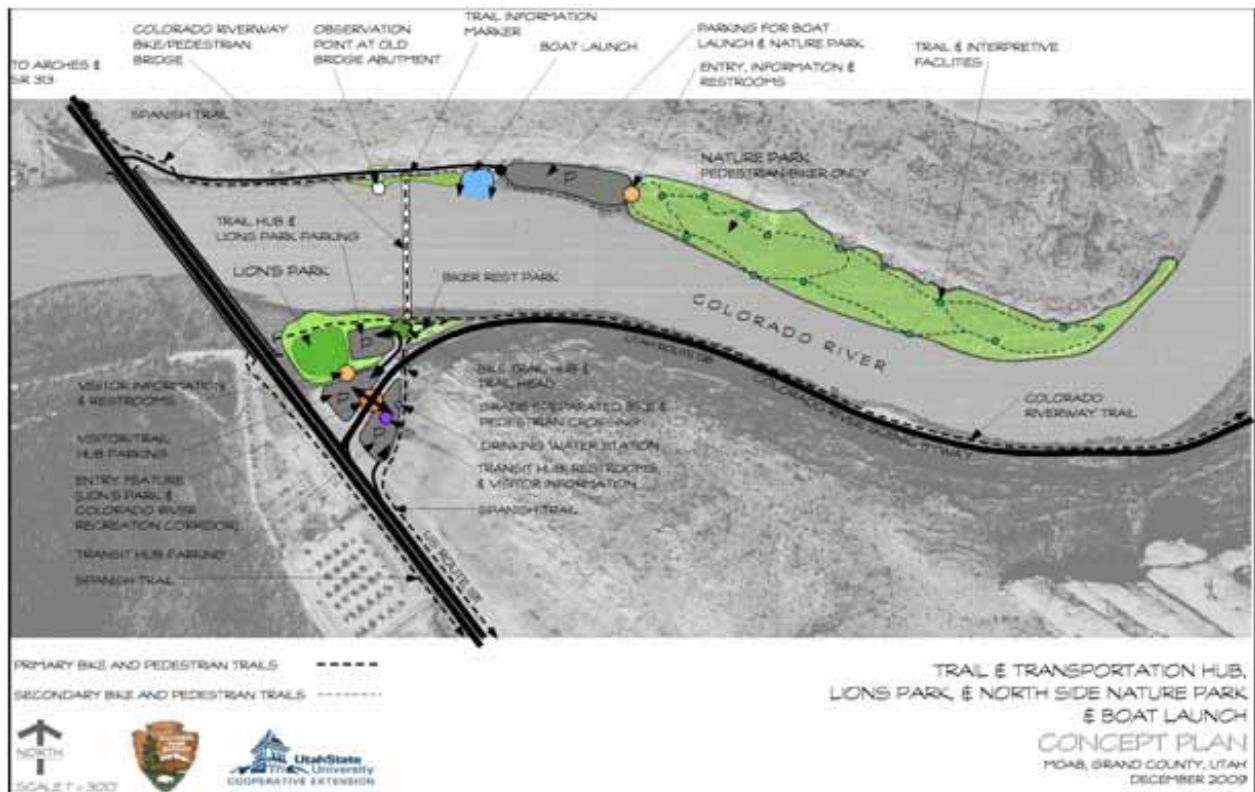
The average number of vehicles per day at peak visitation in the area is 8,000. Total traffic (including through-traffic) in Grand County is increasing at a rate of 3.3% per year. The current carrying capacity of S.H. 191 is 15,000 vehicles per day on the 2-lane section, and 30,000 vehicles per day on the 4-lane section. The current carrying capacity of S.R. 128 is 12,000 vehicles per day per lane. UDOT states that peak usage on S.H. 191 and S.R. 128 is 35-45% above average. The normal hourly carrying capacity of S.H. 191 is 800 vehicles per lane, and S.R. 128 is 600 vehicles per lane¹.

The transportation facilities developed through this project are expected to receive about 500,000 annual visits (based upon 2.5 million total visits to the Moab area). These numbers account for land manager estimates and studies showing that most visitors engage in non-motorized activities for at least a portion of their trip. The NMRA facilities are expected to alleviate at least 20% of the area's traffic congestion. A survey conducted for Arches National Park in 2003 estimated that 20% of Moab's visitors would participate in walking, cycling, and shuttle services in the NMRA if the infrastructure existed¹.

ATS PARTNERSHIPS

The NMRA's ATS system is successful in large part due to the partnerships with a variety of stakeholders. All local land agencies have been involved in the project due to the vast amount of public lands in the area⁴. The project's many partners and private donors include the following^{7, 8}:

- **Bikes Belong:** Bikes Belong is a national organization based in Boulder, Colorado. The organization donated money for the bridge bike path on State Route (S.R.) 128 and the Old Highway section.
- **Bureau of Land Management:** The BLM performed the environmental compliance tasks for the project; this was their most important contribution¹.
- **Federal Transit Administration:** \$774,000 in Paul S. Sarbanes Transit in Parks program (formerly Alternative Transportation in Parks and Public Lands - ATPPL) funds was awarded to Grand County to construct the Lions Park Trail and Transit hub. Administered by the Federal Transit Administration in partnership with the Department of the Interior and the USFS, the program funds capital and planning expenses for alternative transportation systems, such as shuttle buses and bicycle trails in public lands.



The Lions Park Trail and Transportation Hub Concept Plan, by Utah State Extension and RTCA (NPS n.d.)

The Paul S. Sarbanes Transit in Parks program also awarded a grant for \$3,000,000 in 2008 for the S.R. 128 bicycle path.

- **Grand County and its agencies:** Grand County recognized the importance of providing bicycling access and opportunities, which is reflected in its *Grand County Scenic Byways Corridor Management Plan* (2008). The plan notes that “bicyclists will soon be able to

ride on a separated, paved bikeway all the way to Moab, passing the entrances to Arches National Park, S.R. 279, and S.R. 128 along the way and crossing the just-built, multiple government and private funded bicycle/pedestrian bridge over the Colorado River. Also recently built are portions of a four-mile paved TEA-21 funded bikeway from S.H. 191 along S.R. 128 to the Porcupine Rim Trailhead”⁹. The plan states “The non-profit organization Moab Trails Alliance works with the Grand County Non-motorized Trail Mix committee to plan for the county’s trail needs. These groups obtained Transportation Enhancement funding for engineering and partial construction of the planned four-mile bikeway along S.R. 128 from S.H. 191 to the Porcupine Rim Trailhead, including the new bicycle/pedestrian bridge recently completed across the Colorado River at Lions Park. If additional funding can be obtained to complete the route, it could relieve a large portion of the bicycle traffic from SR-128, significantly reduce associated hazards, and provide a premier recreational amenity”⁹. The plan recommends seeking Federal Highway Administration (FHWA) National Scenic Byways grant funding or other sources to complete the S.R. 128 bikeway to the Porcupine Rim Trailhead. The plan includes an action item to “engage the public in context-sensitive solutions discussions during the design phase for all bike improvements (Grand County; UDOT; State Parks; BLM; NPS)”⁹.

- In addition, Grand County coordinated completion of design and engineering services for the project. Grand County’s recent funding request included letters of support from the City of Moab, UDOT, BLM, Arches National Park, and U.S. Senator Orrin G. Hatch⁵.
- **Lions Club:** The Lions Club is a local organization donating the land area for the Lions Park Transit Hub.
- **Moab City:** The City of Moab developed a partnership with Grand County, the BLM, UDOT, and others in applying for funds to complete the infrastructure for the NMRA. The city is interested in annexing and improving Lions Park as the hub of the trail and transit system.
- **Moab Trails Alliance:** The Moab Trails Alliance is a local non-profit organization that works to expand cycling opportunities in Grand County. The MTA, a 501(C)(3)¹ non-profit funded by local businesses and private donors, has written numerous grant proposals and raised money used to match grants for trail development. Independent from Trail Mix, which cannot raise funds for the project, the MTA has been a key player in the project, bringing stakeholders together to implement the North Moab



Trail map displaying partner logos.

Recreation Area Alternative Transportation Plan. The MTA has been effective at developing partnerships and leveraging funding^{1, 4}.

- In addition to the contributions from the private shuttle bus businesses, the MTA, which is a NMRA partner and Trail Mix member, solicits and receives support from local private businesses for trail-related activities. Private businesses also contribute in other ways. The Gonzo Inn is the first area business to charge a real estate transfer tax (RETA) to fund non-motorized trail development and affordable housing, although currently the city is putting all those funds toward affordable housing^{1, 4}.
- **National Park Service:** The National Park Service Rivers, Trails, and Conservation Assistance program worked with the City of Moab, Grand County, and the park planning group to successfully apply for a National Park Service Connecting Communities to Parks grant for trail and park design. The NPS also contributed through its participation in the planning process. The NPS recognized how this effort would help the area's national parks by alleviating parking issues and minimizing resource damage. In addition to helping with site and trail design, RTCA is working with the Lions Park group as described above⁶.
- **Trail Mix:** Trail Mix is a local organization formed from several agencies and organizations that has developed substantial political clout. The group started in 1999 and has met once per month every month since inception. The group includes all area land managers, including the USFS, NPS, BLM, Moab City, Grand County, U.S. Fish and Wildlife Service (USFWS), and the state forestry agency. Bikers, hikers, equestrians, and Nordic skiers are all represented as well. Trail Mix also works with motorized user groups and has a good relationship with them^{4, 10}. Trail Mix contacted potential partners for inclusion in this effort. More details about Trail Mix are provided under "Management," below.
- **Utah Department of Transportation:** UDOT funded portions of the project, believing that NMRA is an important component to Grand County's transportation infrastructure and recognizing the need for county roads to facilitate interstate commerce as well as tourism. UDOT contributed cycling paths under both sides of the Colorado Riverway Bridge, and improvements to the Moab Canyon Trail as described above¹.



UDOT is completing a bridge section over the Colorado River.

INSTITUTIONAL ARRANGEMENTS

MANAGEMENT

Grand County Trail Mix is a committee appointed and sponsored by Grand County to develop and maintain non-motorized recreation trails and has been instrumental in leading this effort. Meetings and membership are open to the public. Trail Mix's mission is "to preserve and develop the individual trails and pathways that will grow into an integrated network and thereby help to provide safe, convenient, and enjoyable recreation and transportation for all trail users throughout Grand County. We work closely with Federal, State, and Local Government and mobilize volunteers to achieve this goal." The group's participation in planning and volunteer trail work has contributed to the creation, updating, and maintenance of several Moab area trails¹⁰.

Trail Mix monthly meetings have proven a productive forum to discuss non-motorized trail issues, set priorities, and schedule work. These meetings offer a setting where all stakeholders can come together in the same room to work out issues on a regular basis. Trail Mix has met every month since it was established, and meetings are regularly attended by representatives from the BLM, USFS, NPS, Moab City, Grand County, UDOT, and motorized and non-motorized trail groups. Grand County sanctions and annual sponsorship of \$10,000 lend support and legitimacy to Trail Mix, helping to keep this group together. Communications and community relationships have greatly improved through the Trail Mix meetings⁴. The partners can raise concerns about such issues as illegal trail building, and Trail Mix leaders can then contact the community and bring together the appropriate people to resolve the issue. Using Trail Mix to do so provides a legitimate and reputable venue for resolving issues¹.

Moab Trails Alliance was conceived in the Trail Mix group. It is a private non-profit funded by local businesses and private donors. The MTA has written numerous grant proposals on behalf of Trail Mix and Grand County and has raised money used to match grants for trail development^{4, 5}.

FUNDING

CAPITAL COSTS

The total NMRA project cost is approximately \$13 million⁵. Work completed to date has been federally funded through two FTA grants from the agency's Paul S. Sarbanes Transit in Parks Program; one for \$774,000 in 2007 for the transit hub at Lions Park, and one for \$3 million in 2008 for the S.R. 128 bicycle path. The BLM also applied to the state for FHWA federal transportation funds that are distributed to each state. UDOT contributed cycling paths under both sides of the Colorado Riverway Bridge. Funding sources are listed in *Table*

OPERATIONS AND MAINTENANCE COSTS

Transit services provided as part of this project will be supplied by the private sector, which will set its own fees. By using existing private companies, the capital outlay and maintenance responsibility of the services will fall upon the private sector. Donation boxes to help offset maintenance costs of the trail facilities will be installed along the paved pathways, at the transit hub stop, and at other strategic points. It is estimated that an average of \$600 per month would be collected through this system. Expected project costs

are based on the following assumptions^{4, 5}.

1. Annual cost for path maintenance: \$29,580 (average for 2010-2014)
2. Average annual number of users: 500,000/year
3. Useful life of transportation assets: 25 years



The bridge over the Colorado River will make bike travel safer.

Grand County created a transportation special services district (TSSD) in November 2009 to augment its Road Department. TSSD will fund most maintenance on the paved trail infrastructure county-wide, and Moab City will provide maintenance on the trail hub portion of Lions Park as part of an interlocal agreement signed in 2009. Grand County will provide services for cleaning transit hubs, keeping bike paths and drainage

culverts clear of debris, maintaining signage, and performing asphalt repair. Grand County is committed to maintaining and supporting these facilities. The majority of the city's maintenance tasks will be performed by the Moab City Recreation Department, which will coordinate a volunteer component in coordination with Trail Mix. The county trail committee and volunteer hours will be recorded. Trail Mix already has a program with the USFS to regularly groom and maintain cross-country ski trails in the La Sal Mountains. A similar program will be instituted for the North Moab Recreation Areas^{4, 5}

Table 2: North Moab Recreation Areas (NMRA) – Grand County, Utah Segment Summary – Funding Sources

BRIDGE, TRAIL AND TRANSIT HUBS			
COLORADO RIVER BIKE/PEDESTRIAN BRIDGE			
Transportation enhancement		\$2,780,000.00	
SI Pkcs & Rec (includes \$20k from Moab Canyon)		\$191,328.00	
Grand County impact fees		\$62,898.00	
Grand County Rec District 2005, 2007		\$90,000.00	
Trail Mix		\$10,000.00	
Bikes Belong		\$7,000.00	
In-house engineering (pd by GC)		\$19,102.00	
Horrocks settlement		\$300,000.00	
BLM (in-kind)		\$20,000.00	
UDOT region 4 contingency		\$30,000.00	
Private donations		\$109,672.00	
Utah state trans fund		\$120,000.00	
Total		\$3,740,000.00	
Status: completed May 2008			
TRANSIT HUBS			
Arches National Park Transit Hub (complete)		\$34,000.00	
Lions Park Transit Hub, 2007 grant*		\$774,000.00	
LIONS PARK TRAIL HUB			
Connecting parks to trails		\$100,000.00	
BLM in-kind environmental		\$15,000.00	
RTCA in-kind assistance		\$12,000.00	
TE 2012 grant application pending		\$500,000.00	
Moab city local match		\$120,000.00	
LIONS PARK REST AREA			
Estimated costs		\$1,000,000.00	
Lions park status: all construction to begin in spring 2011			
Funded		\$4,675,000.00	
Unfunded		\$1,620,000.00	
COLORADO RIVERWAY TRAIL (SR 128)			
PHASE ONE			
Transportation enhancement		\$616,000.00	
State parks and recreation		\$103,000.00	
Grand County Rec District 2006		\$50,000.00	
In-house engineering (pd by GC)		\$13,000.00	
Bikes Belong		\$5,000.00	
BLM (in-kind)		\$23,377.00	
Private donations		\$34,000.00	
Total		\$844,377.00	
Status: completed May 2008			
PHASE TWO			
Paul S Sarbanes Transit in Parks grant 2008		\$3,000,000.00	
Total		\$3,000,000.00	
Status: in design			
PHASE THREE			
All funds required		TBD	
Estimate		\$9,000,000.00	
Status: no projected funding date			
Funded		\$3,844,377.00	
Unfunded		TBD	
MOAB CANYON TRAIL (US 191)			
COURTHOUSE WASH TO SR 313			
Transportation enhancement		\$480,000.00	
TE transfer from 128 phase two		\$800,000.00	
State Parks and Rec		\$200,000.00	
Moab City transfer from Lions to Moab		\$41,000.00	
Leifover from bridge and 128		\$31,000.00	
Bikes Belong		\$10,000.00	
Private donations		\$25,000.00	
Additional match required		\$38,000.00	
Total		\$1,625,000.00	
Status: completion date set for Sept 2010			
US 191 UNDERPASS AND TRAIL			
All funding from UDOT		\$350,000.00	
Status: completed October 2004			
LIONS PARK TO MOAB CITY			
Credit from initial work		\$18,000.00	
Status: to be completed as part of the UDOT 4-lane widening project from US 191 car bridge to Moab City limits. No date for completion has been set.			
191 CAR BRIDGE AUXILIARY PATHS			
All funding from UDOT		\$500,000.00	
Status: underpasses on both north and south Sides of the Colorado River will be completed As part of the US 191 car bridges replacement Project. Completion date: April 2011			

Funded	\$4,675,000.00
Unfunded	\$1,620,000.00

* Paul S. Sarbanes Transit in Parks formerly Alternative Transportation in the Parks and Public Lands Program (ATPPL)

Total funded	\$10,974,377.00
Total unfunded	\$1,658,000.00
NMRA project total	\$12,632,377.00

Credit: Schappert 2010

Funded	\$2,455,000.00
Unfunded	\$38,000.00

LESSONS LEARNED

The BLM has a very good relationship with UDOT. UDOT worked hard to make the project happen. There were many times during the course of the effort when the project could have ended, but the agencies worked together to keep that from happening⁴.

Grand County notes that “The byways are increasingly being recognized for their outstanding road biking opportunities”⁹. As a result, the county formed a Scenic Byway Committee. “Byway management authority ultimately resides with managers of the several individual agencies in charge of byways lands: UDOT, Grand County, BLM, NPS, State Parks . . . standing committees such as Trail Mix . . . and private groups such as The Nature Conservancy, Canyonlands Field Institute, Moab Trails Alliance, and Plateau Restoration, will continue to exert varying degrees of guiding and supporting influence”⁹.

As mentioned above, monthly Trail Mix meetings with stakeholders since 2000 have made an immense contribution to this project’s success. Examples of Trail Mix accomplishments are listed below⁵.

- **Identify a Unifying Goal Among Partners:** The local agencies realized that they needed to improve the Moab area to keep people coming; it was not enough to rely on the area’s reputation to continue to attract visitors. This created a common unifying goal⁴.
- **Create a Master Plan:** In 2005, Grand County created the Grand County Non-Motorized Trails Master Plan (updated March 2008). This document’s vision is “To develop a fully integrated network of environmentally sustainable trails for non-motorized use that will link the Moab Valley to other areas in Grand County. A trail system permits residents and visitors to travel safely throughout the county on foot, bicycle, or horseback while they commute to work or school or enjoy the many outdoor recreational opportunities the county has to offer.”
- **Collect Supporting Data:** Obtain good data to demonstrate why the project is necessary, who will use the facilities, and why the project is important. Doing homework will help interest other partners in participating. Moab Trails Alliance had not collected data in the past, which caused problems at times partly because it is hard to show statistics for a trail that previously did not exist; there is nothing upon which to base a comparison. However, now that significant portions of the NMRA ATS are completed, the MTA will begin collecting data through traffic counters supplied by BLM. This data will be helpful for future funding inquiries.
- **Use Technical Expertise and Resources within the Partner Agencies as Often as Possible:** Having the technical expertise of local agencies has resulted in substantial cost savings. The BLM provided most of the environmental clearances for the NMRA, which saved hundreds of thousands of dollars over hiring a private consultant. Grand County was able to use county engineers for design purposes. The MTA is interested in erecting signage to alert mountain

bicyclists about bighorned sheep that sometimes cross the trails; the group will seek assistance from the BLM for this request.

- ***Identify a Project Champion and Delegate the Job to Multiple Individuals if Necessary:*** Moab Trails Alliance and Trail Mix both have representatives who are respected by the city, county, and project engineers. They all work closely together to monitor progress and keep ahead of any setbacks that may come up. With open and constant communication, solutions are found and commitments are fulfilled. This helps to ensure projects stay on schedule and are not delayed or cancelled.

MTA has been project champion since project inception, addressing and resolving potentially significant issues. For example, from the original concept of a bicycle/pedestrian bridge over the Colorado River in 1999 to the grand opening in 2008, the project cost increased from 1.2 million to 3.8 million dollars. If MTA had not been created in 2003 to assume grant writing (Grand County had no designated grant writer at the time) and work as a liaison between local government and land managers, no funding package would have been developed for the initial 20% federal match, as well as for subsequent cost increases that resulted from an extended construction timeline.

A particularly challenging development arose during mobilization of the construction company in 2007, when project engineers discovered that new FEMA data showed higher flood levels than previously anticipated. This new information required the entire bridge structure to be raised 12 feet, which entailed engineering redesign, added another \$750,000 to project costs, and nearly terminated the project again. Working through some difficult discussions and creative financing, MTA was able to transfer overage money from another project and a cash penalty from the engineering company to make the funding package whole again. MTA was the only group during final negotiations that had been with the project from the beginning, acting as project champion for the duration to keep the effort alive.

- ***When Creating a Project Cost Estimate, Always Overestimate:*** Moab Trails Alliance estimates project costs for grant proposals after consulting with County engineers, UDOT, and local contractors. When working with engineers on cost estimates, it is important to overestimate in order to cover unexpected problems or delays. The longer it takes a project to be completed, the more project costs will increase. For example, each component of the NMRA ATS (the Colorado Riverway Bridge and Pathway, the Moab Canyon Pathway, and the Lions Park Trail and Transit Hub) started with substantial budgets that were appropriate for that point in time. Due to requirements associated with federal funding and subsequent delays, cost increases for materials were significant.

It is also important to create a full funding package, and be aware that construction costs will increase between the initial estimate and the start of construction. When estimating costs, be realistic about the timeframe. Consider how enthusiastic the stakeholders are — if the project is considered a priority, then construction will likely start sooner. But if the stakeholders are lukewarm, construction may be delayed and costs will be higher.

- ***Seek Multiple Sources of Funding to Help Persuade Agencies to Sign on to a Project:*** Project costs can be very high, since it is the responsibility of the local government to maintain facilities once they are built. Therefore, it was sometimes difficult for Trail Mix to get the support of those agencies at the beginning of a project. Trail Mix has been able to obtain funds that do not financially burden local government agencies by using a combination of funding sources. Moab Trails Alliance creates a funding package with several different contributors, including private donations. This package helps show public support for the project, and helps with development of federal transportation enhancements grants that require a 20% match from the sponsoring agency (typically Grand County or Moab City). This is how small amounts of local money are leveraged to create huge projects.
- ***Create a Meeting Environment that Fosters Respect:*** Don't create an "us vs. them" atmosphere. The result will be an understanding by other groups and interests that they must go through the partnership group in order to be heard and given consideration. Also, be aware that every agency has its specific concerns, so keep an open mind. Some land managers may not be interested in the effort.
- ***Keep Lines of Communication Open and Represent all Interests – Bring All Partners Together:*** Conduct regularly scheduled meetings with a group that has legitimate backing from a land agency and that has funding. Grand County and Moab City are finishing the last details of the Lions Park Trail and Transit Hub, which is the gateway to the community. People from the community, as well as visitors from all over the world, will use the Lions Park Trail and Transit Hub, and their interests have been well represented through the Lions Park Planning Group (LPPG) meetings and in the final design of the Trail and Transit Hub. Very little controversy has been associated with this aspect of the project, but suggestions or requests for the design were submitted past the deadline. However, working in a small community is helpful because those with interest in the project know who to call to address their concerns.
- ***Use Public Involvement Mechanisms to Secure Community Support:*** Trail Mix was started in 1999 as an advisory committee to the county council on non-motorized trail development. Because of this affiliation with the county, all land managers and other interested stakeholders (for example, cyclists, hikers, and equestrians) attend the monthly Trail Mix meetings. They view Trail Mix as a liaison to city and county government, as well as an asset to their resources, because of the volunteer program coordinated through Trail Mix. The group is a successful collaborative partnership that incorporates all user groups, including the motorcycle and 4-wheel drive clubs who contribute on field work days when large equipment needs to be transported.

The NPS/RTCA program assisted the Lions Park Planning Group for a year and a half. This partnership was established in 2008 when leading members of Trail Mix and RTCA met and discussed the NMRA ATS. The groups realized that RTCA would be a good fit for development

of the Lions Park Trail and Transit Hub, and were instrumental in forming the Lions Park Planning Group. The group facilitated the evolution of 10 years of scattered planning into a comprehensive set of plans for the construction of a facility that will serve as the gateway to a community that hosts 2.5 million visitors a year.

The LPPG consisted of people from local government, land managers, Lions Club, Historical Society, Moab City Recreation, Trail Mix, Moab Trails Alliance, and Utah State University. The group collected ideas from other planning efforts over the last 10 years. Using this extensive information, RTCA and Moab Trails Alliance were able to write a grant and hire a design consultant, who is currently creating the construction documents for the Lions Park Trail and Transit Hub. In addition, development of different components of the Grand County Non-Motorized Trails Master Plan has required various levels of involvement from the different group members. Trail Mix meetings are used to discuss progress and conduct field trips to demonstrate specific aspects of the plan.

- ***Coordinate Efficient Trail Maintenance:*** Maintenance of non-motorized trails may require equipment that is difficult to carry on foot or bike. Through Trail Mix discussions, motorized groups collaborate with non-motorized groups to transport equipment for trail maintenance. This forum offers motorized and non-motorized groups ideas on how to work together. Some funding for trail maintenance has come from a general budget with contributions from the BLM.
- ***Provide a Forum for Resolving Trail Misuse and Enforcing Rules:*** During the Trail Mix community meetings, issues were identified and resolved in a productive manner through communication between all stakeholders. For instance, a local motorized recreation group constructed an attractive gateway along a popular trail system where 4-wheelers tended to drive off-road onto a single-track trail intended for non-motorized use only. The gateway clearly notifies motorized users where the trail turns into a non-motorized use trail.

Trail Mix stakeholders also discussed the issue of illegal off-trail use that was common during the annual spring Jeep Safari event. The Trail Mix group communicated ideas for educating Jeep Safari participants and better enforcing existing rules. The Jeep Safari event is now better managed and the fragile desert ecosystem is better preserved.

- ***Establish a Proven Record of Success:*** It became easier to get local government agencies involved with projects once Trail Mix and Moab Trails Alliance had shown their ability to bring different sources of funding together and decrease the burden on any one agency.

FUTURE PARTNERSHIP ACTIVITIES

The partners continue to meet through Trail Mix efforts to carry the project forward. The current working relationship among partners is very good, and all partners have worked together to make the project happen. Future partnership activities will focus on project

maintenance and identifying issues that need to be resolved; e.g., illegal trails on BLM land or existing resource problems on trails⁴.

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<<http://www.blm.gov/ut/st/en/fo/moab/recreation.html>>.

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<<http://www.grandcountyutah.net/pdf/planning/GeneralPlanUpdate-041304.pdf>>.

⁴ Kimberly Schappert, Personal Interview (26 March 2010) and Email Correspondence (April – July 2010) with Patti Steinholtz, David Evans and Associates, Inc.

⁵ U.S. Department of Transportation, Guide to Promoting Bicycling on Federal Lands Publication No. FHWA-CLF/TD-08-007 (Lakewood, CO: Central Federal Lands Highway Division, 2008).

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⁸ Kimberly Schappert, “Bridges and Structures for Trails: New Colorado River Crossing is a Bridge to Somewhere,” American Trails Magazine, National Trails Training Partnership (Fall 2008)
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⁹ Grand County, Grand County Scenic Byways Corridor Management Plan (August 2008)
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¹⁰ Trail Mix (No Date) <<http://www.grandcountyutah.net/trailmix/>>.