



**U.S. Department of Transportation
Federal Transit Administration**

**Alternative Transportation in the Parks and Public Lands Program
Project Proposal for Fiscal Year 2007 Funds – Implementation Project**

BASIC PROJECT INFORMATION			
Project Name (Please provide a 1-2 sentence description of the project): Reds Meadow transportation shuttle reimbursement for bus leasing and costs.			
Proposed Funding Recipient: USFS-Inyo National Forest			
Public land unit(s) involved: Inyo National Forest Devils Postpile National Monument		<u>Location of Project</u> City: Mammoth Lakes County: Mono State: California Congressional District: 25th	
Federal Land Management Agency managing the above unit(s): <input type="checkbox"/> Bureau of Land Management <input type="checkbox"/> Bureau of Reclamation <input type="checkbox"/> Fish and Wildlife Service <input checked="" type="checkbox"/> Forest Service <input type="checkbox"/> National Park Service		Type of Implementation Project: (Planning projects, please use the alternate form) <input checked="" type="checkbox"/> Bus <input type="checkbox"/> Vehicle replacement <input type="checkbox"/> Tram/Trolley <input type="checkbox"/> Boat/Ferry/Dock <input type="checkbox"/> Rail <input type="checkbox"/> Non-motorized (e.g., bicycling/pedestrian trail) <input type="checkbox"/> Other (e.g., Intermodal facility, ITS) Describe: Reds Meadow Shuttle – To pay cost of leasing 10 buses	
<input type="checkbox"/> Proposal is for a new alternative transportation system where none currently exists. <input checked="" type="checkbox"/> Proposal is for an expansion or enhancement of an existing alternative transportation system. <input type="checkbox"/> Proposal is for rehabilitation of or replacement of vehicles or facilities for an existing alternative transportation system.			
ATPPL Funding Requested during FY 2007 \$100,000		Total Project Cost at Completion (All sources) \$285,000/Year	
Were you awarded FY 2006 ATPPL funds? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer "Yes," please provide amount awarded: \$167,000			
Do you plan to request additional ATPPL funds in future years? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Note: If you wish to compete for future ATPPL fiscal year funding you must reapply). If answer "Yes," please specify ATPPL proposed funding levels for out years below:			
FY 2008 \$90,000	FY 2009 \$95,000	FY 2010 \$100,000	
FY 2007 Funding Amounts from sources other than ATPPL funds? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer "Yes," please specify funding levels per source below:			
State \$	Local \$	Federal -\$470,000 from USFS access fee.	Private sources \$

CONTACT PERSON

Name: Pennie Custer

Phone: 760-924-5516

Position: Reds Meadow Project Manager

E-mail: pcuster@fs.fed.us

Address: P.O. Box 148; Mammoth Lakes, CA 93546

OTHER PROJECT SPONSORS (in addition to funding recipient)

Deanna Dulen
 Devils Postpile National Monument Superintendent
 P.O. Box 3999
 Mammoth Lakes CA 93546
 Phone: 760-924-5505
 Deanna_Dulen@nps.gov

REQUIREMENTS

- If a State, Tribal, or local government entity is proposing the project, the applicant has contacted the manager of the federal land unit(s) and has the consent of the Federal land management agency or agencies affected.
- The project is consistent with the metropolitan and statewide planning process.
- The project is consistent with agency plans.
- If this is an implementation project, all reasonable alternatives, including a non-construction option, were analyzed before proposing this project.

BASIC PROJECT DATA

Number of Visitors (Annual): 100, 000- 150,000

Daily Number of Visitors (Peak season): 2,000-3,000

Average Number of Vehicles per Day at Peak Visitation:

300 vehicles (one way trips) when the shuttle is in service, 1,200 when the shuttle is NOT in service (based on FTA study by BMI-SG Road Transportation Study). Note: For ease of discussion vehicle trip, vehicle number, and vehicle miles traveled are presented as roundtrips. All Reds Meadow trips are roundtrips, thus, 300 vehicles per Day constitutes 600 vehicle trips on the Reds Meadow Road or 2,400 trips without the shuttle.

Current Road Level of Service at Peak Visitation

Current estimated Level of Service at Peak Visitation is Level B. Without the shuttle LOS is estimated to decline to Level F based on long sections of 1 lane road with pullouts, unsignaled intersections and combined roundtrip delays in excess of 50 seconds.

What time of the year does your land unit experience Peak Visitation?

Spring Summer Fall Winter

Current Carrying Capacity of Existing Roads:

Current carrying capacity of existing roads has not been calculated. Reds Meadow Road is not a through road. As a single access destination route, road capacity is not the key limiting factor. Parking availability is the key limiting factor and cannot be meaningfully increased due to resource and geographic constraints.

Current parking shortages during peak visitation:

Total number of parking spaces = 185

Total number needed at peak visitation is 500.
The valley cannot add parking spaces without impacting natural resources and recreation opportunities.

Current Average Number of Persons who use the alternative transportation system (if one already exists) at Peak Visitation:
1200 (average number of visitors/daily at peak)

Current Annual Number of Persons who use the alternative transportation system (if one already exists):
65,000 plus.

Estimated Annual Number of Persons who will use the alternative transportation system at project completion: 65,000 plus.

Is there an anticipated reduction in auto collisions with large animals with this project?

Yes No

If "Yes," please provide anticipated reduction: 10 collisions/year

BASIC PROJECT DATA (CONTINUED)

Is there an anticipated increase in porous surface with this project? Yes No

If "Yes," please provide anticipated area of increase: square feet

Is there an anticipated increase in wildlife habitat connectivity? Yes No

If "Yes," how many acres would be connected by the project? acres

Is there an anticipated increase in air clarity measures (e.g., visitors' visual experience) for the land unit as a result of this project? Yes No

If "Yes," please explain: Shuttle buses reduce the numbers of private vehicles being driven into the valley and decreases overall exhaust emissions. The area is a non-attainment area for Clean Air Act, so it is important to continue to limit the number of vehicles in the valley.

Is there an anticipated reduction of visual impact of parking and roads on visitor experience?

Yes No

If "Yes," please explain: Continuation of the shuttle system reduces vehicle trips and prevents roadside parking in un-designated areas.

Is there an anticipated reduction of visual or noise impacts of transportation facilities on visitor experience?

Yes No

If yes, please explain: Continuation of the shuttle system reduces private vehicle trips and associated visual and noise impacts.

Executive Summary

The successful 28-year-old Reds Meadow – Devils Postpile (RM-DP) mandatory shuttle bus system is one of the longest running and most successful shuttle systems developed on Forest Service lands. A 2006 NPS Visitor Survey Project identified 92% of respondents in support of the shuttle. Additionally, annual NPS Visitor Survey Cards shows a 92-99% visitor satisfaction with their experience of the Reds Meadow area, a statistic directly linkable to the reduction in traffic congestion, air and noise pollution resulting from operation of the shuttle system.

For the last five years the RM-DP shuttle system has been operated under Fee Demo Authorities and the Federal Lands Recreation Enhancement Act (REA). The intent of these authorities are for access fees to directly pay for services provided (i.e. shuttle costs should be covered by access fees). In practice, this has not been the case.

Five year average annual revenues totaled \$435,000/ year, while average costs have approached \$529,000. Revenue shortfalls have occurred for a number of reasons, principally length of operating season. Reds Meadow is located within one of the most intense snow climates on the North American continent. Beginning and end of shuttle operations seasons can vary by more than a month with a correlate reduction in access fee revenue. Costs have remained relatively constant for infrastructure, while operation costs (staffing for fee collection, bus drivers etc.) continue to rise. Annual revenues vary by up to 10% due to the unpredictability and fluctuations in weather patterns and visitation, making breaking even difficult.

5-year Average Costs	5- year Average Revenue & Deficit		
Shuttle Leasing/ Costs	\$90,000	All fee and income sources	\$435,000
Shuttle Operating Costs	\$309,000		
Other Project Operating Costs	\$130,00		
Average Annual Operating Cost	\$529,000	Average Annual Project Deficit	\$94,000

This difficulty is compounded by the need to obligate out year funds in advance of issuance of contracts. With little or no potential for carry-over funds from Reds access fee revenue, the INF has been covering project deficits and posting funds sufficient to cover contract costs on an annual basis. As an example with a current negative cash balance of \$222,000, projected operations contract costs of approximately \$93,000 and a projected yearly shuttle lease cost of approximately \$90,000, a total of \$405,000 had to be shifted from the INF recreation program funds to offset the contract for advertisement in 2007.

Funding the annual capitol cost reimbursement proposal for \$90,000 will partially address current and anticipated revenue deficits and provide stability for this season's and subsequent years operations. The Reds Meadow – Devils Postpile Shuttle project received the ATTPL Feasibility Study grant for 2007. cost reimbursement will allow for continued operation of the shuttle while the Feasibility Study is completed and will ensure continuity of operation during implementation of Feasibility Study recommendations.

Using ATPPL funds to pay the capital costs of leasing buses will ensure a financially viable and sustainable bus service by reducing seasonal revenue uncertainty, while limiting impacts on appropriated funds for other Inyo National Forest recreation programs, including the very recreation amenities the public ride the shuttle to access.

Project Description



Reds Meadow Devils Postpile Stop #6 at NPS Ranger Station

The Inyo National Forest requests \$90,000 from the ATPPL program to pay for the capital costs of leasing ten buses for the Reds Meadow – Devils Postpile transit system and \$10,000 for visitor information. Visitor information will include:

- A map that explains the route, the ten bus stops, recreational opportunities, where to get emergency assistance;
- Important informational signs at key spots in the gateway community, bus ticket sales areas, on the bus routes; and
- Information on board the bus walls to assist visitors in orientation and planning for a safe and enjoyable visit.

Funding received from ATPPL will cover the leasing costs of the shuttle buses necessary to operate the system. The short length of the shuttle season and the limitation that it may operate for only three years (under the current contract) suggest that the successful operator lease the buses.

The Reds Meadow – Devils Postpile (RM-DP) transportation shuttle area is located in the upper Middle Fork of the San Joaquin River basin, in the Sierra Nevada Mountains of California, on the Mammoth Ranger Districts of the INF. Access to the area is along the scenic Highway 395 corridor through the Town of Mammoth Lakes, approximately 45 miles north of Bishop, California, and approximately 180 miles south of Reno, Nevada.

The RM-DP road is the only route for vehicle access to the San Joaquin River Valley, Devils Postpile National Monument, Rainbow Falls trailhead, and five trailheads leading into the John Muir and Ansel Adams Wilderness areas, including the Pacific Crest Trail and John Muir Trail. The road also provides access to 186 campsites distributed across six campgrounds, four nature trails, and two day use lakes, Reds Meadow Pack Station and Lodge, and Agnew Meadows Pack Station.

The RM-DP area is served by only one access road, narrow throughout and effectively single lane for much of its length. 185 parking spaces are available for day use and recreation opportunities draw over 100,000 visitors each year from June to October.

The Reds Meadow - Devils Postpile Shuttle System:

- Has a capacity of 40 people and two bike racks .
- Serves day-use visitors and overnight campers.
- Operates daily from mid-June to after the Labor Day holiday from 7 a.m. to 7 p.m.
- Operates on a nineteen mile loop with ten stops, departing every 20-30 minutes.
- Have ADA accessible buses, although people with disabilities are allowed to drive personal vehicles when appropriate.



On a busy day cars are often be double-parked.



Parking Lot on a weekend when the Shuttle Bus is not in service

Alternative Transportation in the Parks and Public Lands Implementation Evaluation Criteria

Criteria	Points	Weight
1. Demonstration of Need		25%
a. Visitor mobility & experience	(1-5)	
b. Environmental condition as result of existing transportation system	(1-5)	
2. Visitor Mobility & Experience Benefits of Project		25%
a. Reduced traffic congestion	(1-5)	
b. Enhanced visitor mobility, accessibility, and safety	(1-5)	
c. Visitor education, recreation, and health benefits	(1-5)	
3. Environmental Benefits of Project		25%
a. Protection of sensitive natural, cultural, and historical resources	(1-5)	
b. Reduced pollution (air, noise, visual)	(1-5)	
4. Operational Efficiency and Financial Sustainability		25%
a. Effectiveness in meeting management goals	(1-5)	
b. Feasibility of proposed budget	(1-5)	
c. Cost effectiveness	(1-5)	
d. Partnering, funding from other sources	(1-5)	

Implementation Evaluation Factors:

1. Demonstration of Need

a. Visitor mobility and experience:

- ❖ **Describe the site's current and/or anticipated transportation problem or opportunity for improvement. Access for persons with disabilities, lower incomes, or without cars.**

The Reds Meadow-Devils Postpile Shuttle system is mission critical to managing visitation in the USDA Inyo National Forest and NPS Devils Postpile National Monument. Prior to the mandatory shuttle bus, traffic often became gridlocked, parking spaces filled up, and visitors choose to park off the side of the road on vegetation and small trees. Visitors were frustrated at having to walk, in some cases, several miles to get to the Devils Postpile National Monument or to other trailheads in the valley. People with disabilities or without vehicles were often completely shut out of the valley experience.

The system helps the agencies:

- Preserve and protect natural and cultural resources.
- Reduce traffic congestion, air pollution, noise pollution.
- Improve visitor safety and overcrowding by dispersing visitors throughout the valley.
- Reduce the need for more parking spaces.
- Encourage and promote bicycling and walking.
- Manage the number of motor vehicles allowed in the Reds Meadow Valley. Without the shuttle, management options would include allowing vehicles in on a one-in, one-out basis, thereby reducing the number of visitors to the valley. The area can thereby accommodate more people, just not more vehicles.
- Keep the access fee affordable, the current access fee is \$7.00/person and not anticipated to exceed \$10.00/person in the foreseeable future.

The Shuttle system improves mobility and the visitor experience by:

- Allowing more visitors to enjoy the Forest and Monument.
- Providing better access for people with disabilities.
- Providing connections to other local and regional transit systems for those without vehicles or developing loop hikes or leaving their vehicle behind for a day trips. Links include:
 - The Yosemite Area Regional Transit System,
 - Multi-modal to the Bay area, Inyo-Mono Transit System, and
 - The Carson Ridgecrest Eastern Sierra Transit system from Ridgecrest to Reno and the Reno International Airport.
- Increasing visitation of underserved populations through outreach programs to local schools and Spanish speaking communities.
- Providing interpretive and educational opportunities to the visitors on the buses
- Access for persons with disabilities is addressed by allowing visitors with accessibility needs to choose to either drive their personal vehicles or utilize the shuttle system.

Studies conducted since 2000 confirm the need for, and visitor satisfaction with the shuttle system:

NPS Visitor Survey Cards (annual evaluation with 400 questionnaires)

- 2000-2006, overall visitor satisfaction 92-99%.
- Over 90% of written comments on transportation system were positive.

Eastern Sierra Expanded Transit System Report by Cambridge Systematics, 2003.

- Recognized importance of Reds Meadow-Devils Postpile Shuttle for regional transportation contribution.
- Partners submitted an ISTEAs proposal in 2004 that included Reds Shuttle for funding.

NPS Transportation Advisory Group (TAG) and Interagency Working Group August: 2004

- Reviewed the parks' transportation system and needs.
- Recommended in-depth analysis and planning effort be continued.

Reds Meadow Devils Postpile Shuttle: Background Information and Regional Context, 116 report completed by Transportation Scholar Ginna Smith and approved by NPS and Inyo NF, December 2004.

- Included Analysis of Ten Alternatives.

Transportation Study, 2005: FTA contracted to BMI-SG a case study of Reds Meadow- Devils Postpile Shuttle.

- Goals, Objectives, and Performance Measures
- Data Collection and Analysis
- Alternatives Analysis and Development

2006: Visitor Survey Project (VSP)

- 92% of public selected continuation of the existing system.

In summary, continuing the transportation system is the best alternative because it increases visitor mobility and experience, as the shuttle bus system allows more people to access the area while limiting impacts on natural resources. The shuttle increases the quality of visitor experience through:

- Reduction in vehicle traffic/congestion and increased pedestrian safety,
- Transit connected pedestrian loop trails, and
- Improved resource conditions including air quality.

❖ **Traffic congestion and traffic delays, visitor frustration.**

A 2005 FTA Transportation Study determined options other than continuation of the existing shuttle system would result in:

A 50% decrease in the number of visitors, or

- Unacceptable traffic congestion,
- Traffic delays, Parking shortages,
- Difficulty in accessing destinations, and
- Safety issues related to traffic.

❖ **Visitor Safety:**

Law enforcement operations report that shuttle operations have significantly reduced serious criminal, resource, and public safety incidents, thereby reducing the costs of emergency services.

The Reds Meadow Road is the only vehicular access into, and out of, the Reds Meadow/DEPO valley. The narrow, steep and winding characteristics of the road from the Minaret Entrance Station to the valley floor limit the number of vehicles that can *safely* use the road, particularly if two or more large vehicles (RVs, vehicles towing trailers) meet head-on at points with no pullouts. A study by the Forest Service in the 1970s, determined the road could safely accommodate 650 cars per day if dispersed throughout the day and the valley. In the off-season when the shuttle operations are suspended, the road frequently exceeds 1,000 cars per day.

The 2005 Transportation Study identified 200 passes per hour during peak season mandatory shuttle operations on a narrow (1.5 lanes), winding two mile stretch of the Reds Meadow –Devils Postpile road. Without the shuttle it is estimated that there would be 1200 passes.

Deductively, it is apparent lack of a shuttle bus system would result in gridlock, increased accidents, and intense driver anxiety and frustration. With the mandatory shuttle bus, access by large public vehicles (RVs, Truck and Horse Trailers) is further managed to increase safety through coordination of access with shuttle buses. Shuttle bus drivers use radio communications to track their routes. When traveling through the 2 ½ miles of single lane road they know where to pull over, allowing room to pass each other safely. Motor homes and campers are asked to follow buses so they can safely maneuver down the single lane road without hitting other vehicles.

❖ **Parking, and Difficulty Accessing Destinations:**

Traffic congestion and parking concerns have been greatly reduced since the Reds Meadow – Devils Postpile Shuttle was implemented in 1979.

Shuttle ridership is estimated to reduce vehicular traffic by up to 500 vehicles daily during peak use periods. Note: all trips are roundtrip in and out on Reds Meadow Road, thus 500 vehicles represents 1000 vehicle trips. All vehicle trips in this discussion are presented as roundtrip figures. There are only 185 parking spaces throughout the valley. If carefully managed, available parking can accommodate approximately 250-350 vehicles. Without the shuttle accommodating the current level of visitors would result in 900 to 1,200 vehicle roundtrips/day and require the turn-over of every parking spot, on average, every 90 minutes. The current average visit is 3.5 to 4 hours. Given daily peak morning and afternoon peak traffic periods, existing levels of visitors could not be accommodated without the shuttle.

- b. Environmental condition as a result existing transportation system: Describe the site's current or anticipated problem or opportunity for improvement of the environment in this area. Please cite documentation in agency plans and other reports to support your description. You should include information on current or anticipated problems such as air pollution, noise pollution, run-off, water quality, harm to vegetation and wildlife, and other impacts or stressors on natural, cultural and/or historic resources caused by the existing transportation system.**

Eliminating the shuttle would impact the natural environment, air quality, and wildlife along the Reds Meadow Road, at Devils Postpile National Monument, and in Reds Meadow Valley by increasing vehicular traffic from a five-year average of 14,483 vehicle roundtrips to nearly 41,660 vehicle roundtrips per season.

Prior to 1977, access into the valley was on an unimproved dirt road. Dust coated and impacted the adjacent vegetation along both sides of the road. In 1978 the road was paved to reduce the dust but this made access easier and increased the number of vehicles. The valley became a parking lot, often grid locked, with cars parked on roadside vegetation, wherever they could find room to pull off the road. Then in 1979 a mandatory shuttle system was implemented, limiting thousands of vehicles from entering the Reds Meadow area and reducing impacts to vegetation and wildlife habitat.

Emissions were reduced through the elimination of approximately 500 vehicle roundtrips per day and air quality improved with fewer vehicles. Fewer vehicles result in less collision with animals. Mandatory shuttle buses drive at slower speeds also decreasing animal injuries or fatalities. Fewer vehicles also result in parking being contained in specified parking areas.

2. Visitor Mobility and Experience Benefits

- a. **Reduced traffic congestion:** Describe *how* this project will mitigate the impact of traffic congestion or enhance current visitor travel conditions. In order to respond to this question, please include (where applicable) a description of how this project will:
- ❖ **Reduce the average number of daily motorized vehicle trips during peak visitation with project implementation. (This is estimated based on anticipated alternative transportation system usage at completion and the typical number of passengers per vehicle); and**
 - ❖ **Decrease or mitigate time lost to traffic delays.**

The Reds Meadow – Devils Postpile shuttle provides a means of access to the valley for 75% of visitors during peak day operations. On average 65% of all visitors access the valley via the shuttle system. The shuttle allows for a much higher level of public visits than a private vehicle based alternative.

There are currently 185 parking spots in the valley and little or no room for expansion. Without the shuttle, accommodating the same level of public visitation would result in an increase in vehicle trips. A review of available parking, a current average visitor stay of 3.5-5 hours, and the elimination of trailhead parking due to longer visitor stays results in an average turn-over per parking spot of 1.5 to 2 times per day. We estimate only 100 out of 185 parking spots typically turn over in a day. This suggests a maximum valley vehicle capacity of 280 to 380 vehicles per day, numbers consistent with current peak day visits.

	Peak Day Private Vehicle Roundtrips	Annual Private Vehicle Roundtrips
5-year Average 2001-2006 (65% of visitors arriving by shuttle)	300	14, 483
Projected Trips (100% of visitors arriving by private vehicle)	800	41, 660

Without the shuttle bus approximately 400 to 500 vehicles would be unable to find parking in the valley or be turned away. Our studies have shown average vehicle occupancy of 2.4 people, meaning loss of the shuttle would effectively reduce access to the valley by 900-1200 visitors during peak periods.

- b. **Enhanced visitor mobility, accessibility, and safety:** Describe *how* the implementation of this project will improve or maintain visitor mobility, access and safety. In order to respond to this question, please include (where applicable) a description of:
- ❖ **Benefits that the project would have in easing visitor travel to destinations and decreasing visitor inconvenience;**
 - ❖ **Improved access for persons with disabilities;**
 - ❖ **Improved access for individuals with lower incomes or without cars;**
 - ❖ **Anticipated impacts on vehicle accident rates or property loss;**
 - ❖ **Anticipated impacts on visitor safety in cases of catastrophic events, such as forest fires; and**
 - ❖ **The number of visitors per year that will benefit.**

The benefits of the system include:

- Expanded ease access,
- Access for a greater number of people to multiple locations,
- Expanded hiking and pedestrian opportunities including access to loop trails,
- Access for individuals without cars via the shuttle with connections to larger transit networks, and
- Enhanced safety through reduction in private vehicle trips.

Actual accident rates relative to different transit alternatives will be assessed during this year's feasibility study.

The shuttle enhances access for persons with disabilities. Buses with wheel chair lifts and ADA compatible accommodations can be provided, while persons with disabilities retain the option of using their personal vehicle to access the valley when it would enhance access opportunities.

The shuttle is linked to transit systems within the adjacent community of Mammoth Lakes providing for a seamless shuttle transit alternative for people without cars. Access for lower income individuals is considered in the fee structure with the current access fee set at \$7/day.

Risks of vehicle and pedestrian collisions are reduced through the elimination of 400-500 vehicle roundtrips per day during peak periods. In a catastrophic event such as a fire, limited access to the valley allows for effective coordination and faster evacuation of visitors and employees.

c. Visitor education, recreation and health benefits: Describe *how* the project will enhance or maintain visitor experience related to educational benefits, recreational benefits, public health benefits, and social benefits. How many visitors per year will experience these benefits?

All visitors benefit from maintaining the shuttle bus system. Continuation of the shuttle affords access to a greater number of visitors than could be accommodated through use of private vehicles. Continuing the shuttle service allows for a higher quality visitor experience, continued resource protection.

Additional funding would allow for provision of visitor information and interpretation on the shuttle buses. Each visitor would receive a printed map depicting shuttle bus stops, recreational opportunities, hiking loops, and locations for emergency assistance. Important visitor information printed and posted inside the bus, and also at the Adventure Center Visitor Contact point and ticket sales that explains the system operations and benefits.

All visitors would experience the public health benefits by increased safety on the roads from decreased vehicles and increased public health from decreased air pollution emissions.

The social benefits of visitors enjoying a beautiful natural environment with safe and hassle free access are both tangible and intangible. Annual NPS Visitor Survey Cards distributed since 2000 consistently show satisfaction from 92-99%. Satisfied visitors return and spend time in local gateway communities enhancing community economic health. Intangible benefits are increased health and welfare of our communities.

3. Environmental Benefits

a. Protection of natural, cultural, and historic resources: Describe *how* this project will improve or maintain the protection of natural, cultural, historic, and/or scenic resources. Please provide as much information as possible about *anticipated outcomes of the project*, such as:

- ❖ **Ensuring that visitation does not exceed an area's ability to handle increased levels of visitation or the "carrying capacity" of the land unit;**
- ❖ **Maintaining ecosystem function, ecosystem restoration, disturbed land restoration, or re-vegetation efforts;**
- ❖ **Improving habitat connectivity;**
- ❖ **Preserving an archeological resources, historical resources, view shed or watershed;**
and
- ❖ **Reducing auto-large animal collision rates or other protection benefits where applicable.**

The Reds Meadow-Devils Postpile Shuttle reduces the number of private vehicles accessing the valley while allowing visitors to experience the natural beauty and quiet of the area. Although a precise carrying capacity has not been identified, key components of carrying capacity are functioning with the current system.

Prior to instituting the shuttle in 1979, the Forest Service reported significant resource degradation along Reds Meadow Road. Without vehicular restrictions and shuttle service, a higher volume of private vehicle traffic would create potential for significant degradation of roadside vegetation beyond 1979 levels. Visitation to the adjacent gateway community of Mammoth Lakes is projected to continue to grow from a current peak of 35,000 people at one time to as many as 50,000 people at one time within the next few years, heightening the importance of maintaining a functional and sustainable transportation system.

Eliminating the shuttle would impact the natural environment, air quality, and wildlife along the Reds Meadow Road, at Devils Postpile National Monument, and in Reds Meadow Valley by increasing vehicular traffic from approximately 300 peak day vehicle roundtrips to 900-1200 vehicle roundtrips per day during peak operating season.

b. Reduced pollution: Describe how this project would reduce and/or prevent pollution – including air pollution, water pollution, noise pollution, and visual pollution. In order to respond to this question, please include (where applicable):

- ❖ **Estimated reduction in average vehicle miles traveled at peak visitation (a measure that is an estimate of a reduction in pollutant emissions as a result of the proposed project); and**
- ❖ **Estimated number of riders switching from auto to transit or to non-motorized transportation (including bike, pedestrian, and/or waterborne craft) as a result of the project (a measure of estimated reduction in fuel consumption for site patrons and improved energy efficiency aspects of transportation, including non-motorized transportation).**

The RM-DP Shuttle reduces vehicle miles traveled on the 19 mile roundtrip route.

	Visitors Arriving by Private Vehicle (Annual Average)	Average Persons/ Vehicle	Private Vehicle Miles (19 mile roundtrip)
RM-DP Shuttle	35,000	2.4	277,083 miles
W/O RM-DP Shuttle	100,000	2.4	791,667 miles

The RM-DP shuttle annually reduces private vehicle trips by 514,583 miles through the elimination of 27,000 vehicle trips.

Greater detail will provided through the Reds Meadow – Devils Postpile transit feasibility study, however, a straight projection of averted trips with an average miles per gallon of 20 mpg, suggests a reduction in private vehicle fuel consumption of 25,730 gallons or approximately 460,000 lbs of CO2.

4. Operational Efficiency and Financial Sustainability

a. Operational Efficiency: Describe how the proposed project is the most effective solution for meeting identified management goals and objectives for this site. Please cite documentation in agency plans and other reports to support your description.

The transportation system, in operation for 28 years, continues to provide a high quality visitor experience while maintaining the integrity of natural resources. The expertise of both the Forest Service and National Park Service has been focused on finding a sustainable, cost-effective, reasonably priced, safe, and environmentally sound system for visitor access. In particular, we convened the NPS Transportation Advisory Group (TAG) and Interagency Working Group in 2004 to work with a National Park Foundation Transportation Scholar resulting in the publication “Reds Meadow Devils Postpile Shuttle Report: Background Information and Regional Context.” This report included an analysis of seven alternatives

using five different criteria and outlining several important considerations for review in the 2007 Feasibility Study.

The report used a matrix to compare the alternatives using the five criteria: visitor capacity, cost per visitor, impact on natural resources, implementation needs, and public relations. The highest ranked alternatives included either Forest Service or Park Service managed shuttle bus. Alternatives for accommodating current visitor numbers including a reservation system or a one-in/one-out management of parking spaces both ranked lowest.

92% of respondents to a 2006 Visitor Survey identified continuation of the shuttle system as the preferred alternatives.

b. Feasibility of Proposed Budget: Fill in the budget template below or attach a project budget that *at a minimum contains the items in the budget template* and extends at least 5 years. Include a narrative to elaborate on the financial plan.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Revenue					
ATTPL funding (requested)	100,000	105,000	110,000	115,000	120,000
Funds from public land budget					
Other federal funds					
State funding					
Local funding					
Passenger Fares and/or transportation fees	435,000	435,000	435,000	435,000	435,000
All other dedicated sources of funding ^{1,2}					
<i>Total Revenue</i>	535,000	540,000	545,000	550,000	555,000
Costs					
Purchase of rolling stock (vehicles)					
Lease of rolling stock (vehicles)	90,000	95,000	100,000	105,000	110,000
Construction (e.g., bus shelters, sidewalks, trails, etc.)					
Rehabilitation					
Other: <u>maps/info</u>	10,000	10,000	10,000	10,000	10,000
<i>Total Costs</i>	100,000	105,000	110,000	115,000	120,000
Operating Costs					
Salaries	130,000	130,000	130,000	130,000	130,000
Routine Maintenance					
Insurance					
Fuel					
Contracted services	309,000	309,000	309,000	309,000	309,000
Other: _____					
<i>Total Operating Costs</i>	439,000	439,000	439,000	439,000	439,000

Proposed budget narrative:

In FY 2007, a new contract for the Reds Meadow-Devils Postpile shuttle is being advertised and is anticipated to be awarded for the 2007- 2010 period. Based on a comparative analysis of other transportation systems, costs for leasing 35 foot buses averages approximately \$3000/month. Our

calculations' show for a fleet of 10 buses (the number of buses required by the contract) estimated leasing cost is \$30,000/month for 3 months for a total of \$90,000 per operating season. To accommodate increased costs of leasing and inflation, \$5,000 is added on an annual basis for out year leasing costs.

The terms of the lease, labor, and maintenance plan costs are included in the total contract cost. To provide current and future visitors with information on the shuttle system an additional \$10,000 is needed to cover printing costs of map/guides and basic informational signs describing the operation. Additional facilities are not required for implementation of the project.

Current recreation program operations on the Inyo National Forest have been significantly impacted to cover annual deficits and provide funds sufficient to cover contract costs. If contract bids come in greater than expected, the contract may not be funded, the shuttle program would cease to operate and the Forest Service would have to consider an approximate 50% reduction in public visitation.

Funding the annual cost reimbursement proposal for \$90,000 will partially address current and anticipated revenue deficits and provide stability for this season's and subsequent years operations. The Reds Meadow – Devils Postpile Shuttle project received the ATTPPL Feasibility Study grant for 2007. cost reimbursement will allow for continued operation of the shuttle while the Feasibility Study is complete and ensure continuity of operation during implementation of Feasibility Study recommendations.

For 2007, we were awarded ATPPL funds to develop a feasibility study for development of a financially sustainable transportation system. The study will aid in the determination of more precise cost estimates. For planning purposes, we are using an average of the last five years to estimate of costs for the shuttle system contracts and leases, operational costs for staffing, ticket sales and checkstations, and passenger fare revenues.

c. Cost Effectiveness: Fill in all information for items 1-4 below in order to calculate the cost per person using the alternative transportation system. FTA will calculate annualized cost per passenger trip and annual fare box recovery – common transit cost effectiveness measures – based on the information that you provide. You must provide all information in order to fulfill these required criteria.

1. Annual cost for vehicle operations and maintenance (including salaries, fuel, maintenance, administrative expenses related to system, and all other operating costs): \$539,000.
 2. Average annual number of riders: 65,000 /year
 3. Transportation fee or fares recovered (average): \$435,000/year
 4. Useful life of transportation assets: unknown based on conditions and terms of future leases.
- Annual cost per passenger trip: This will be automatically calculated by FTA.
- Annual fare box recovery This will be automatically calculated by FTA. %

d. Partnering, funding from other sources: Describe any partnerships the project has with federal, state, tribal and local government agencies, gateway communities and the private sector. Please cite agreements or documentation (*including letters of dedicated financial support or confirmation of financial or in-kind contribution*) that show a high level of coordination and partnering activities. If applicable, describe any economic, mobility, or other benefits to the gateway community.

The USDA Forest Service-Inyo National Forest and the National Park Service, Devils Postpile National Monument coordinate management of the Reds Meadow-Devils Postpile Shuttle System by:

- Sharing staff to support the Minaret Entrance Station and Mammoth Welcome Center.
- Contributing \$140,000 each from WASO funds in 2004 to support operational expenses
- Participating in local & regional transportation planning processes
- Leading discussions with potential partners (city, county, regional transportation authorities, etc.) to determine the feasibility of sharing resources, etc. The 2007 Feasibility Study will further explore these opportunities.
- Eastern Sierra Expanded Transit System partners submitted an ISTEA proposal in 2004 that included Reds Shuttle for funding.

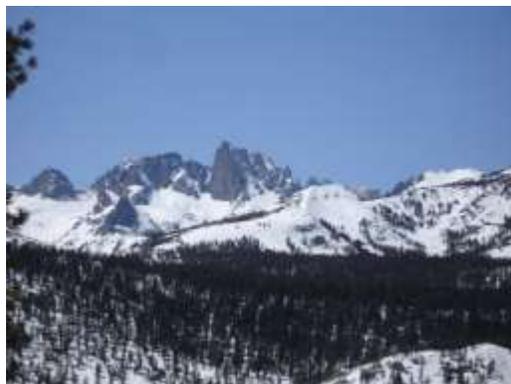
The Reds Meadow-Devils Postpile Shuttle System benefits mobility and the local economy by:

- Providing 23 seasonal staff positions in the gateway community of Mammoth Lakes, CA
- Staging the shuttle system in Mammoth Mountain Ski Area, which provides visitors the opportunity to take advantage of food, lodging, and shopping at local merchants
- Increasing the number of visitors to the area and in Reds Meadow
- Facilitating bicycling and walking as preferred modes of transportation.
- The National Park Service is developing a Reds Meadow outreach program for local schools including Spanish speaking programs aimed at increasing local visitation.

The USDA Forest Service-Inyo National Forest and the National Park Service, Devils Postpile National Monument are partnering in coordinated management of Reds Meadow-Devils Postpile and working to develop a sustainable transportation/visitor access system for the Reds Meadow Valley road.

Recreation opportunities provided in the Reds Meadow valley contribute significantly to the local recreation economy. Reds Meadow – Devils Postpile outdoor recreational opportunities for sightseeing, hiking, fishing, and camping in the beautiful glacially carved valley of the Upper Middle Fork of the San Joaquin River amidst the mountain peaks lakes, flora and fauna the John Muir and Pacific Crest Trails, and the Ansel Adams and John Muir Wilderness areas. Visitors to Reds Meadow –Devils Postpile rely on adjacent communities for food, lodging and other services bringing much needed revenue. The shuttle project provides an opportunity for much higher visitation to Reds Meadow and results in greater revenue and earnings in adjacent communities.

Both agencies participate in local and regional transportation planning and are actively exploring possibilities for effective sharing of resources and future partnering. These opportunities will be further explored during the 2007 Feasibility Study.



View from Minaret Vista looking across Reds Meadow Valley