



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

**Paul S. Sarbanes Transit in Parks Program (Transit in the Parks Program)
Project Proposal for Fiscal Year 2009 Funds – Implementation Project**

BASIC PROJECT INFORMATION	
Project Name (Please provide a 1-2 sentence description of the project):	
<p>Sustainable Transit in Reds Meadow and Devils Postpile National Monument As the culmination of a decade of work between the Inyo National Forest, Devils Postpile National Monument, and the Federal Transit Administration, Eastern Sierra Transit Authority has assumed operation of the Reds Meadow Shuttle starting in 2009. This request for the purchase of buses will enable the long-term viability of this new partnership with ESTA.</p>	
Proposed Funding Recipient: Eastern Sierra Transit Authority (ESTA)	
Public land unit(s) involved: Inyo National Forest Devils Postpile National Monument Town of Mammoth Lakes	<u>Location of Project</u> City: Town of 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 checked="" type="checkbox"/> National Park Service <input type="checkbox"/> Other (e.g. Federal Trust) Describe:	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:
<input type="checkbox"/> Proposal is for a new alternative transportation system where none currently exists. <input type="checkbox"/> Proposal is for an expansion or enhancement of an existing alternative transportation system. <input checked="" type="checkbox"/> Proposal is for rehabilitation of or replacement of vehicles or facilities for an existing alternative transportation system.	
Transit in Parks Program Funding Requested during FY 2009 \$4,800,000	Total Project Capital Cost at Completion (All sources) \$4,800,000
Were you awarded Transit in Parks Program funds for this project in the past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer "Yes," please provide amount awarded: \$367,000: Funds supported the related planning study and leasing costs, from which this implementation phase follows.	
Do you plan to request additional Transit in Parks Program funds in future years? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Note: If you wish to compete for future Transit in Parks Program fiscal year funding you must reapply). If answer "Yes," please specify Transit in Parks Program proposed funding levels for out years below:	

FY 2010 Will be dependent on success of this application	FY 2011 \$	FY 2012 \$	
FY 2009 Funding Amounts from sources other than Transit in Parks Program funds? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer "Yes," please specify funding levels per source below:			
State \$	Local \$	Federal (other than Transit in Parks Program) \$	Private sources \$349,250 (passenger fares)
CONTACT PERSON			
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Address: 351 Pacu Lane, Suite 200, Bishop, CA 93514-3101			

OTHER PROJECT SPONSORS (in addition to funding recipient)	
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REQUIREMENTS
<input type="checkbox"/> 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. <input checked="" type="checkbox"/> The project is consistent with the metropolitan and statewide planning process. <input checked="" type="checkbox"/> The project is consistent with agency plans. <input checked="" type="checkbox"/> 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 over 4 month season	Daily Number of Visitors (Peak season): Averages about 2,000
Average Number of Vehicles per Day at Peak Visitation: 300 vehicles in the access limited Reds Meadow area (per Forest Order, the Reds Meadow shuttle has been the primary means of access during peak visitation since 1979); without the shuttle, expected vehicle use would exceed 1000 during peak visitation	
Current Road Level of Service at Peak Visitation: Estimated Level of Service at Peak Visitation is Level B with "mandatory" shuttle service. Without the shuttle LOS would be Level F based on unrestricted traffic on a steep and curvy 1 lane road with pullouts.	
What time of the year does your land unit experience Peak Visitation? <input type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <input type="checkbox"/> Fall <input type="checkbox"/> Winter	
Current Carrying Capacity of Existing Roads: Safe carrying capacity of existing one lane road is up to 650 vehicles per day under idealized conditions. Reds Meadow Road is a one-lane, spur road that has had peak visitor traffic demand far in excess of its carrying capacity since 1979, when shuttle bus service	

was established as the primary mode of access to accommodate growing visitation, safely and efficiently.

Current parking shortages during peak visitation:

Total number of parking spaces: 185

Total number needed at peak visitation: 500.

Parking is a key limiting capacity factor and cannot be meaningfully increased due to geographic constraints and without adversely impacting natural resources and degrading recreation opportunities.

Current Average Number of Persons who use the alternative transportation system (if one already exists) at Peak Visitation:

1,200 visitors daily, or 75% of visitation. The shuttle eliminates up to 500 daily vehicle roundtrips during the peak season.

Current Annual Number of Persons who use the alternative transportation system (if one already exists): 55,000 visitors, or 70% of visitors during shuttle operations

Estimated Annual Number of Persons who will use the alternative transportation system at project completion: 55,000 plus (one element of the current Volpe/David Evans and Associates Feasibility Study is looking at adding additional weekend service in the shoulder seasons, now made possible by the partnership with ESTA; this analysis was not complete as of February 2009)

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 driven into the valley and associated exhaust emissions. The area is a designated Class I (pristine) airshed that is in non-attainment status under Clean Air Act, so it is important to continue to limit the number of vehicles in the valley, and to minimize shuttle bus emissions by acquiring low-emission buses that meet or exceed EPA and California emissions standards. Since the 2009 season, buses used in providing the Reds Meadow shuttle have been leased and do not meet the more stringent emissions standards imposed on newly manufactured buses to be acquired under this project. The shuttle is credited with reducing greenhouse gas emissions by 250 tons compared to having visitors operate their own vehicles.

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 undesignated areas.

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

Yes No

If yes, please explain: Quieter buses with large windows will improve the overall visitor experience. And, continuation of the shuttle system reduces private vehicle trips and associated visual and noise impacts.

Executive Summary

The Inyo National Forest, in partnership with the Eastern Sierra Transit Authority (ESTA) and the Devils Postpile National Monument, requests \$4,800,000 from the Paul S. Sarbanes Transit in the Parks program to purchase 12, 35-passenger, handicapped accessible buses. These buses, operated by ESTA, will be used to transport 1,200 visitors daily into the popular Reds Meadow Valley and the Devils Postpile National Monument. The buses will also potentially help catalyze the eventual transition of Mammoth Mountain Ski Area's winter shuttle operation to ESTA, contributing to a fleet that ferries over 600,000 visitors annually between the Town of Mammoth Lakes and the ski area, located on Forest Service land.

At 30 years old, the Reds Meadow Shuttle service is one of the oldest, on-going shuttle operations on federal lands. It has successfully reduced resource damage to the Reds Meadow Valley and Devils Postpile National Monument. The shuttle service is also extremely popular: 1,200 visitors pay to ride the shuttle every day and visitor survey results show 92-99% are satisfied with the service.

Despite these successes, operating the Reds Meadow Shuttle has been challenging for the Inyo NF and Devils Postpile NM. For the past few years, the Inyo NF has used a \$100,000 infusion from Transit in the Parks implementation grants to facilitate contracting and help cover leasing costs; prior to these grants, the agencies had to rely on appropriated dollars to cover shortfalls, significantly impacting the abilities of the Inyo NF and Devils Postpile NM to provide an excellent recreation experience to visitors.

Starting in 2009, the Inyo National Forest and the Devils Postpile National Monument are embarking on a new model for operating the Reds Meadow Shuttle by partnering with ESTA, which will assume operations of the Shuttle. This model, based in part on the extremely successful partnership between Roaring Forks Transit Authority and the White River National Forest at Maroon Bells, will provide an excellent shuttle experience to visitors and preserve and protect the benefits of an alternative transportation system in the Reds Meadow Valley. As the locally based, federally recognized transit authority, ESTA has the local infrastructure, the flexibility, and the mission to be able to provide a more cost effective, interconnected, and sustainable shuttle operation. In short, it is the long term, sustainable solution that the Inyo NF and Devils Postpile NM have been seeking.

For the 2009 season, ESTA is leasing buses to operate the shuttle service. However, preliminary results from a Transit in the Parks funded feasibility study recognize that over the long term, purchasing buses is significantly more sustainable than leasing buses and helps protect the resource. Based on this recommendation, this application is for the purchase of 12 buses that ESTA will use to operate the Reds Meadow Shuttle service. The buses will be low floor, ADA accessible buses with room for 35 passengers, and will be tailored to safely navigate the treacherous Reds Meadow access road. The success of this application will ensure the long term sustainability of the operation and address the challenges of the Reds Meadow Shuttle that the Inyo NF and Devils Postpile NM have been grappling with for decades.

We are aware that submitting a \$4.8 million request to a pot that has \$22 million may raise questions, and we are open to consideration of phased funding. However, the partners involved in this process have been working for decades to identify a long term, sustainable solution through several studies. We believe we have landed on the proper solution. The benefits that will result if this application is successful will have a lasting impact on millions of visitors. The requested buses:

- Will help catalyze and build the capacity of our local transit authority to serve our public lands
- Contribute to a seamless, regional transit system by filling a 4 mile gap in existing services
- Promote long-term financial stability to an operation that has struggled for decades
- Provide for visitation 2-3 times larger than would be possible without a shuttle system
- Ensure ADA accessibility where it has been lacking in the past
- Improve the safety of visitors and enhance the visitor experience
- Continue to protect the fragile ecosystem of the Reds Meadow Valley and significantly improve air quality

Project Description

The Inyo National Forest, in partnership with the Eastern Sierra Transit Authority (ESTA) and the Devils Postpile National Monument, requests \$4,800,000 from the Paul S. Sarbanes Transit in the Parks program to pay for the purchase of 12, 35-passenger, handicapped accessible buses. Until 2009, the transportation shuttle has been operated by contractors hired by Inyo NF but starting this year, ESTA will begin operating the shuttle through its authority as a Joint Powers Authority and as the federally recognized transit authority for the region. This project is the culmination of decades of work between the partners, with significant support from Federal Transit Administration.

The Reds Meadow Valley is located in the upper Middle Fork of the San Joaquin River basin, in the Sierra Nevada Mountains of California, on the Mammoth Ranger District of the Inyo NF. 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.

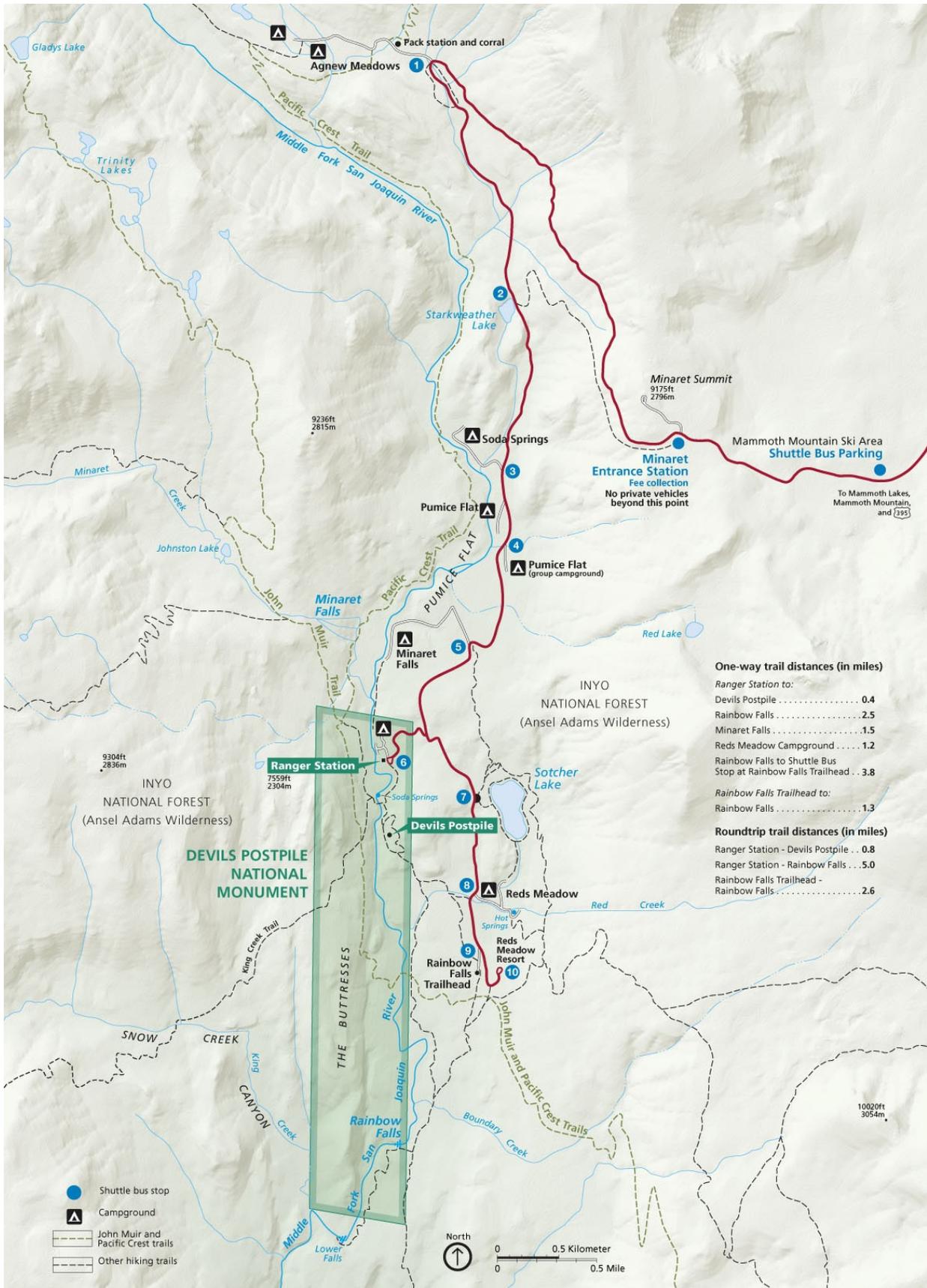
The Reds Meadow road is the only route for vehicle access to the Reds Meadow Valley, Devils Postpile National Monument, six trailheads leading into the John Muir and Ansel Adams Wilderness areas, including the Pacific Crest Trail and John Muir Trail. The road also provides access to four nature trails, two day use lakes, Reds Meadow Pack Station and Lodge, Agnew Meadows Pack Station, and 186 campsites distributed across six campgrounds. There are only 185 parking spots for the 2,000 daily visitors. From June to October when the Reds Meadow is accessible, over 100,000 people visit the valley. The valley is inaccessible to motor vehicles due to snow the rest of the year.

The Reds Meadow Shuttle has been in operation for 30 years and was implemented when a Forest Order limited vehicle access to the Reds Meadow Valley. The vehicle restriction resulted from degradation of the valley's natural resources and safety concerns, caused by motor vehicle use above the valley's capacity. In the 30 years since the order, the ecological health of the valley has been on an upward trajectory due to the vehicle restriction and shuttle service. The shuttle has also limited the need for building additional parking, significantly reduced the impacts of personally-owned vehicle travel into the valley, and successfully avoided any major collisions along the steep and treacherous access road.

In 2008, about 1,200 passengers rode the shuttle each day of operation during peak season. During the 3 months of operation, 55,000 passengers rode the Reds Meadow shuttle. Ticket prices have been \$7/adult and \$4/children for unlimited rides on one day for the last six years, and are expected to stay the same in the future. Total visitation is higher than shuttle ridership because the shuttle does not operate the entire time the valley is accessible, and there are exceptions to the vehicle restriction, including overnight campers or resort guests, vehicles with a handicapped placard, vehicles pulling horse trailers, or vehicles with a floatation device (canoe, kayak, etc.).

To operate the shuttle, the Inyo National Forest hired outside operators to run the service. The remote location of the Reds Meadow Valley, limited interest in the contract, and strict contracting regulations made it difficult to ensure passenger fares covered the costs of the contract and oversight. Because of these challenges, this shuttle service has been the subject of eight studies over the last six years. These studies, ranging from Transportation Scholar Reports, to feasibility studies, to Transportation Assistance Group reports, all laid the groundwork for identifying an environmentally compatible, financially sustainable, ADA compliant, long term solution for the Reds Meadow Shuttle, which led to partnering with ESTA. ESTA was formed in 2007 and does not have sufficient rolling stock to operate the shuttle.

This request is for 12, 35 passenger, low floor, ADA-accessible buses and ESTA will use these buses to operate the Reds Meadow Shuttle. However, the buses will also be a catalyst in future discussions between ESTA and Mammoth Mountain Ski Area (MMSA) about the winter shuttle operations. MMSA, which is located on forest service land, is interested in working with ESTA to improve its transit operations and efficiency, and ESTA is the logical solution. The buses purchased with this application, if successful, will help make this transition possible.



Transit in Parks Program Implementation Evaluation Criteria

1. Demonstration of Need

As the culmination of a decade of work between the Inyo National Forest, Devils Postpile National Monument, and the Federal Transit Administration, Eastern Sierra Transit Authority has assumed operation of the Reds Meadow Shuttle starting in 2009. This has initiated the beginning of a sustainable model for one of the longest running transit operations on federal lands. In order to ensure the long-term viability of this new partnership with ESTA, and to avoid the need for annual implementation grant support, this request for the purchase of rolling stock is necessary.

a. Visitor mobility and experience:

The Reds Meadow Valley shuttle service has been very well studied. In the last six years, multiple efforts have analyzed different aspects of the shuttle service:

- 2003/2004 Eastern Sierra Expanded Transit System Report by Cambridge Systematics
- NPS Transportation Assistance Group Report, 2004
- NPS Transportation Scholar Report, 2004
- FTA funded Transportation Study by BMI-SG, 2005
- FTA Transportation Assistance Group Report 2007
- NPS Transportation Scholar Report 2007
- Reds Meadow/Devils Postpile Case Study by VHB, 2007
- Feasibility Report by the Volpe Center/David Evans and Associates, to be completed spring 2009

In addition to these studies and reports, the National Park Service conducts annual visitor surveys and in 2006, they conducted an in-depth visitor study in partnership with the University of Idaho. The data used throughout the rest of the application are from these reports and studies.

The Reds Meadow Shuttle system is vital to managing visitation and protecting natural resources in the Reds Meadow Valley and Devils Postpile National Monument. There are two primary transportation problems that the Reds Meadow Shuttle Service addresses: access and parking. The only road into the Reds Meadow Valley and Devils Postpile National Monument is a steep (up to 13% grade) and narrow road with sharp curves that create blind corners; in many places during the descent, the road is only one lane wide with a precipitous dropoff to the valley floor below. Once in the Valley, there are only 185 parking spaces dispersed across the six trailheads, two day-use lakes, and the Devils Postpile National Monument. For the protection of the fragile valley ecosystem and to preserve water quality, the Inyo NF and Devils Postpile NM have decided that adding more parking is not a viable option.

Increasing Access

The shuttle system increases the accessibility of the valley to persons with disabilities and those without cars. With ESTA assuming operations in 2009, the Reds Meadow Shuttle will also be directly linked to the existing transit systems in the Town of Mammoth Lakes and the region. As a result, it will be easy for visitors to access Reds Meadow Valley and the Devils Postpile from Reno, Merced, or the Los Angeles area without a private vehicle. In the past, the 4 mile break in transit service between Mammoth Lakes and the beginning of the shuttle route made Reds Meadow virtually inaccessible for those relying on mass transit.

Purchasing new buses also increase access for persons with disabilities. Visitors with disabilities will have the option of either riding the shuttle or driving their personal vehicle into the valley. For those that choose to drive in, the shuttle system limits the number of cars accessing the valley, ensuring adequate parking close to the attractions and again, minimizing the need for walking for mobility-impaired visitors.

Parking Shortages

Traffic congestion and parking concerns have been greatly reduced since the Reds Meadow Shuttle was implemented in 1979. Shuttle ridership is estimated to reduce vehicular traffic by up to 500 roundtrips daily during peak use periods. (Note: all trips are roundtrip in and out on Reds Meadow Road, so all

vehicle trips in this discussion are presented as roundtrip figures.) There are only 185 parking spaces throughout the valley. 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 traffic periods, up to three quarters of the existing peak day visitors could not be accommodated without the shuttle.

Traffic congestion, traffic delays, and visitor frustration

The 2005 FTA (BMI/SG) Transportation Study analyzed the impacts on visitation if the shuttle system were discontinued. Without the shuttle system, there would be a 50% overall decrease in the number of visitors, or unacceptable traffic congestion, traffic delays, parking shortages, difficulty in accessing destinations, and safety issues related to traffic.

b. Environmental condition as a result of the existing transportation system:

This request for purchasing new vehicles will help protect the fragile, alpine ecosystem of the Eastern Sierra. Because of the demanding duty cycle of the Reds Meadow Valley route, past contractors have had difficulties with shuttles leaking fluids throughout the valley, and with finding a proper location for maintenance. For the last four years, basic maintenance have not consistently met best management practices and jeopardized water quality. The new partnership with ESTA, and this request for new vehicles, will ameliorate these challenges. ESTA has access to local maintenance facilities and the vehicles that will be purchased with this application, if successful, will be able to handle the rigors of the Reds Meadow road without environmental damage. In addition, the new buses will also meet strict emissions standards that existing buses do not.

Absent the shuttle, the natural environment, air quality, and wildlife along the Reds Meadow Road, at Devils Postpile National Monument, and in Reds Meadow Valley would be adversely impacted by 23,000 more vehicle roundtrips per season. Prior to the shuttle, the valley was gridlocked and became a parking lot, with cars parked on roadside vegetation wherever they could find room to pull off the road. In 1979, the Forest limited personal vehicle access to the valley and initiated the shuttle system. The shuttle system has removed the need for almost 23,000 vehicle roundtrips within the Reds Meadow area each season, significantly reducing impacts to vegetation, wildlife habitat, and improving air quality.

The shuttle system eliminates approximately 500 vehicle roundtrips per day or 10,000 vehicle miles traveled per day, reducing emissions and improving air quality. With the shuttle system, there is sufficient parking space so vehicles no longer need to park along roads on vegetation. Fewer vehicles result in fewer collisions with animals and the shuttle buses keep speeds slow, also decreasing animal fatalities.

2. Visitor Mobility and Experience Benefits

a. Reduced traffic congestion:

The Reds Meadow Shuttle provides access to the valley for approximately 75% of visitors during peak day operations. On average 65% of all visitors access the valley via the shuttle system when in operation. The shuttle allows for a much higher level of public visits than a private vehicle based alternative. Without the shuttle, accommodating the current levels of public visitation isn't feasible and would result in an increase in vehicle trips even at drastically reduced visitation levels. There are currently 185 parking spots in the valley and the Inyo NF and Devils Postpile NM do not consider increasing parking a viable alternative. The average visitor stay in the valley is 3.5-4 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 carrying capacity of 280 to 380 vehicles per day, numbers consistent with current peak day visits with the shuttle.

	Peak Day Private Vehicle Roundtrips	Annual Private Vehicle Roundtrips
5-year Average 2001-2006 (65% of visitors arriving by shuttle)	300	14,500
Projected Trips (100% of visitors arriving by private vehicle)	800	37,500

Without the shuttle bus, the Level of Service rating of the Reds Meadow access road without the shuttle would be an F, and approximately 400 to 500 vehicles would be unable to find parking in the valley, be turned away, or have to park along roadsides, impacting vegetation, water quality, and visitor safety. Our studies have shown average vehicle occupancy of 2.4 people, meaning loss of the shuttle would effectively reduce access to the valley by 900-1,200 visitors during peak periods.

b. Enhanced visitor mobility, accessibility, and safety:

With the new partnership with ESTA, the Reds Meadow Shuttle will be directly linked to the adjacent community of Mammoth Lakes and its 30,000 lodging beds and three fixed transit routes. In the past, there was a 4 mile gap in transit services. In addition to linking Mammoth Lakes visitors to the Reds Shuttle system, this new connection links the Reds Shuttle to other ESTA regional services to Reno or the Los Angeles area, and YARTS service to Yosemite Valley and Merced, CA, creating a truly regional, seamless transit system supporting visitation to public lands. The benefits for people without cars or who choose to leave the car at home are significant.

Purchasing new buses for the shuttle will enhance access for persons with disabilities. A limited number of specially equipped buses have been used in the past to meet accessible transportation needs; however the majority of service was provided with high-floor buses that are not optimally suited to shuttle operation or to older visitors and/or families with young children that have difficulty negotiating steep stairs. New shuttles will be low floor models and have wheel chair lifts and ADA compatible accommodations, while persons with disabilities also retain the option of using their personal vehicle to access the valley when it would enhance access opportunities.

Almost 1,200 visitors a day benefit from the existing shuttle system, totaling 55,000 during its three months of operation. Many hikers in the valley choose to hike one way routes (starting at one trailhead, finishing at another), knowing they can catch the shuttle at any trailhead and many overnight campers opt to leave their vehicle parked and take the shuttle to visit other destinations within the valley.

The Inyo NF and Devils Postpile NM are sensitive to the impacts that a transit fare can have on lower-income families and have worked hard at keeping the fare as low as possible. One rationale for partnering with ESTA is the hope that the current \$7/day adult fare will be able to be either lowered in the future, or at least maintained, due to increased efficiencies in operation, no need to yield a profit, and support from granting programs like Transit in Parks.

Visitor Safety

Purchasing new buses that can be tailored for the rigors of the Reds Meadow access road will also improve safety. Past buses used for the Reds Meadow shuttle were not always configured for repeated use on the steep access road, including a transmission geared for steep descents and a retarder-equipped transmission. While there have not been any incidents as a result of inappropriate buses, there is no reason to continue taking these risks.

The Reds Meadow Shuttle service significantly improves the safety for visitors. Law enforcement operations report that shuttle operations have significantly reduced serious criminal, resource, and public safety incidents, thereby reducing the costs of emergency services. In addition, the characteristics of access road 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 under idealized conditions and if dispersed throughout the day and the valley. However, visitation is usually concentrated during the mid-day hours and even the 300 daily vehicles tax the capacity of the road. Without the shuttle, studies have predicted over 800 vehicles would access the valley; on holiday weekends, vehicle usage would likely exceed 1,000 per day without the shuttle. The road would have an 'F' Level of Service on the road, and visitors would have to park along roadsides. It is apparent that without a shuttle bus system, there would be gridlock, increased accidents, and intense driver anxiety and frustration.

With the shuttle system in place, there have been very few vehicle accidents in the Reds Meadow Valley. Not only does the reduction in vehicle trips increase the safety, but access by large private vehicles (RVs, trucks with trailers) is further managed to increase safety through coordination with shuttle buses. Shuttle bus drivers know where to pull over, allowing room to pass each other safely. Motor homes and campers are advised to follow buses so they can safely maneuver down the road without incident. In a catastrophic event such as a fire, limited access to the valley and large shuttles allow for effective coordination and faster evacuation of visitors and employees.

c. Visitor education, recreation and health benefits:

The grant-funded purchase of buses supports the long term sustainability of ESTA's operation of the Reds Meadow Shuttle service, which is essential to continuing to have significant, positive impacts on visitors. With a grant-funded purchase of buses, ESTA will be able to use farebox revenues to increase interpretation on the buses, significantly enhancing the visitor experience. Additionally, the Inyo NF is expecting administrative and operating costs to decrease with ESTA as a partner and will instead be able to direct these funds to improving the visitor experience through amenity improvements throughout the Reds Meadow Valley, including accessible trails and interpretive signage. All 100,000 summertime visitors to the valley will benefit from these improvements.

The new shuttles will facilitate interaction between visitors and rangers or drivers and improve the visitor experience even more. With bus ownership, ESTA will be able to make modifications to the bus to support interpretation on the buses by adding on-board passenger information systems.

The shuttle service provides many education, recreation and health benefits to Reds Meadow visitors. Purchasing tickets and riding the shuttle provide multiple contact opportunities with visitors to share important safety and education messages for visiting Reds Meadow Valley. The contact opportunities also provide visitors with multiple chances to ask about recreation opportunities. The NPS 2006 Visitor Study shows that the visitor experience is greatly enhanced by the shuttle service. Almost a quarter of respondents said the shuttle improves their hiking experience, over a quarter of respondents indicated that it improved their park experience, and a third said the shuttle increases safety.

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 with the shuttle service ranging from 92-99%. Satisfied visitors return and spend time in local gateway communities, enhancing community economic health. Intangible benefits include the community nature of riding a shuttle; it is very common for neighbors on the shuttle to strike up conversations during the ride, which could not happen in individual vehicles.

3. Environmental Benefits

a. Protection of natural, cultural, and historic resources:

The Reds Meadow Shuttle reduces the number of private vehicles accessing the valley while still allowing visitors to experience the natural beauty and quiet of the area. Although a precise carrying capacity of the valley has not been identified, key components used to measure carrying capacity are functioning with the current system. In fact, the ecological health of the valley has recovered sufficiently enough that the Devils Postpile NM is involved in a study that will likely identify the Reds Meadow Valley as a

biorefugium for wildlife as the climate warms. Additionally, there is no expectation of a significant increase in visitation due to this proposal.

Visitation to the Inyo NF is expected to increase by 96,000 visits annually until 2025 and 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 in Reds Meadow Valley by increasing vehicular traffic from approximately 300 peak day vehicle roundtrips to over 800 vehicle roundtrips per day during peak operating season. Increasing the number of personal vehicles in the valley would lead to either increased parking along the roads or more parking lots. More parking along roads would see a concomitant increase in impacts on vegetation, soil compaction, and decrease in water quality; building more parking lots would have significant effect by clearing forests and destroying habitat, increasing impervious surfaces, and negatively affecting water quality and the visitor experience. The Middle Fork of the San Joaquin River flows through Reds Meadow Valley and is a drinking water source for many downstream communities.

b. Reduced pollution:

Purchasing new buses will help reduce air pollution in the Reds Meadow Valley. The area is a designated Class I (pristine) airshed that is in non-attainment status under the Clean Air Act. It is important to continue to work at reducing air pollution in the valley by minimizing shuttle bus emissions. Starting with the 2009 season, buses used in providing the Reds Meadow shuttle will be leased and do not meet the more stringent EPA and California emissions standards imposed on newly manufactured buses. The leased buses will be as old as 13 years old. ESTA estimates that new buses will reduce non-methane hydrocarbon and nitrogen oxide emissions by 93% and particulate matter by 80% compared to the older leased buses.

The Reds Meadow Shuttle reduces vehicle miles traveled significantly. About 55,000 visitors ride the shuttle yearly, instead of driving the 19 mile roundtrip. It is safe to assume that essentially all of these visitors would drive personal vehicles in the valley if the shuttle was not in operation. The table below shows the impact of the shuttle system on reducing vehicle trips, vehicle miles traveled and CO_{2e} (carbon dioxide equivalent) emissions.

Average number of shuttle riders	Avoided vehicle trips (2.4 passengers/vehicle)	Avoided vehicle miles traveled	Avoided emissions (lbs CO_{2e})
55,000	22,917	435,417	518,981

In addition to significantly lowering CO_{2e} and other auto-related pollutants, the shuttle system also helps to preserve a pristine soundscape. Standing on the Devils Postpile, it is possible to hear only the sounds of the forest, and not hear any motorized vehicle despite the 2,000 daily visitors. Increasing vehicle usage from 300/day to 800/day would significantly impact the existing soundscape of the valley.

4. Operational Efficiency and Financial Sustainability

a. Operational Efficiency:

Many of the studies of the Reds Meadow shuttle system have evaluated alternatives to the shuttle system, including opening access to all with no shuttle, a cap on vehicles in the valley (with one-out / one-in operations once the cap is reached), and a reservation system. Every study has concluded that a shuttle system is the best alternative for ensuring high visitor accessibility to the valley while still protecting the fragile ecosystem and protecting visitor safety.

The new partnership with ESTA and the purchase of new buses adds significant operational efficiencies to the Reds Meadow Shuttle system. They will help avoid the challenges and costs with leasing buses,

provide significant safety improvements, and have a lasting, positive impact on visitor experiences. Preliminary discussion and data from the Transit in the Parks funded study being completed by David Evans and Associates indicate that purchasing buses is a better long term option for shuttle operations, rather than leasing. There are many challenges that come with leasing that indicate it is not a sustainable option for the Reds Meadow shuttle operation. These challenges include:

1. It is extremely difficult to find a source for a 3-4 month lease, especially during the summer. Leasing companies are primarily interested in long-term leases, and summer is also the peak demand time for buses, making leasing during this season extremely difficult. The remote location of the Reds Meadow operation does not make this any easier.
2. Because of the extreme challenge in finding a short-term lease, it is even more difficult to be particular about the type of bus and its safety features. If the access to Reds Meadow was a straight and flat road, this would not be a concern. However, the access road is very steep with sharp curves and requires buses that can handle this safely; buses should include a retarder-equipped transmission and transmissions should be geared to handle the steep grade. In the last four years, inappropriate buses used by contractors have caused significant damage to the road, had challenges working at high altitudes, had problems making some turns, and had problems with leaking hydraulic fluid.
3. Ridership, and the fares collected from riders, is relatively consistent year to year. However, the challenges already outlined with leasing demonstrate that leasing costs will be very unpredictable and make it hard to ensure the operation does not lose money in the long term. The cost of leasing could vary from \$85,000-\$144,000 (Draft Bus Type Analysis, David Evans and Associates). Purchased buses adds a significant level of predictability when it comes to long term planning for this operation, which is vital for keeping bus fares low and sustaining the operation.
4. Not only are the leasing costs unpredictable, they also would be higher than a grant-funded purchase of buses. Avoiding leasing costs would enable either a reduction in passenger fares or at least the ability to maintain current fares for many years. This will help keep the shuttle experience affordable and accessible.
5. The lease with Mammoth Mountain Ski Area (MMSA) for the 2009 operating season is not a long-term solution. The current MMSA buses are older and need to be replaced soon; they are also not wholly appropriate for the conditions of the Reds Meadow access road. Relying on a lease with MMSA gives this large corporation significant leverage when it comes to negotiating new leases. And importantly, MMSA wants to improve its operations and efficiency and is in the early stages of working with ESTA to explore the opportunity to transfer operations from MMSA to ESTA.

In addition to the addressing the challenges with leasing listed above, purchasing buses brings other significant advantages.

1. The buses that would be purchased with this grant application will be selected based on their ability to both handle the challenges of the Reds Meadow access road and serve the needs of the MMSA winter operation. Adding these 12 buses to ESTA's fleet moves ESTA one step closer to having the capacity to assume MMSA's winter operations; this is in the best interests of the Inyo National Forest, Eastern Sierra residents, and the taxpayer. The MMSA winter shuttle system is the largest transit operation in the Eastern Sierra and if it is operated by ESTA, it will strengthen ESTA's capacity to provide high quality services to public lands throughout the Eastern Sierra. These could include some of the trailhead shuttles currently under study, funded by the Transit in the Parks program.
2. If ESTA owns the buses, it will be easier to make any mechanical adjustments to the buses to ensure they operate efficiently and safely on the challenging access road. These include:
 - a. A retarder-equipped transmission to handle the steep grade
 - b. A transmission geared for the steep grade
 - c. Seating arrangement designed to maximize efficiency and safety
 - d. ADA accessibility features
3. In addition to mechanical adjustments, ESTA will be able to add visitor amenities to the buses if they own them. These amenities could include bike racks, space for backpacks, picnic baskets, fishing rods, etc., and an onboard passenger information system to enhance the passenger experience and education opportunities.

Purchasing buses will also help sustain the new partnership with ESTA, which has additional benefits for visitors. Under the previous contractor-run shuttle service, visitors to the Reds Meadow Valley and Devils Postpile NM were cumulatively paying \$400,000-\$550,000 a year for the shuttle service, contract oversight, and fare collection and processing. Visitors were extremely supportive of this system, with over 92% supporting the shuttle operations. However, our analysis expects this new partnership with ESTA will free \$50,000-\$150,000 of this money to reduce fares and to increase the interpretive and recreation experience of visitors. One anticipated benefit of this partnership will be the freeing of staff time from contract oversight, fare collecting and processing, and other general administrative tasks required of the operation. Instead, this time and money will be spent on improving recreational amenities and providing increased interpretation in the Reds Meadow Valley.

b. Feasibility of Proposed Budget:

	FY 2009	FY 2010	FY 2011	FY 2012
Revenue				
Transit in Parks Program funding (requested)	\$4,800,000 (requested FY2009 but usually not disbursed until FY 2010 or FY2011)			
Funds from public land budget				
Other federal funds				
State funding				
Local funding				
Passenger Fares and/or transportation fees	\$349,250	\$352,750	\$356,250	\$360,000
All other dedicated sources of funding	\$50,000 (from FY08 ATPPL grant)	\$50,000 (from FY08 ATTPL grant)		
<i>Total Revenue</i>	\$5,199,250	\$402,750	\$356,250	\$360,000
Capital Costs				
Purchase of rolling stock (vehicles)			\$4,800,000	
Lease of rolling stock (vehicles)	\$85,000	\$90,000		
Construction (e.g., bus shelters, sidewalks, trails, etc.)				
Rehabilitation				
Other: _____				
<i>Total Capital Costs</i>	\$85,000	\$90,000	\$4,800,000	\$0
Operating Costs				
Salaries	\$207,000	\$215,250	\$224,000	\$233,000
Routine Maintenance	(Included in lease)	(Included in lease)	\$30,000	\$31,200
Insurance	\$16,000	\$16,600	\$17,300	\$18,000
Fuel	\$51,000	\$53,000	\$55,100	\$57,400
Contracted services				
Other: _____				
<i>Total Operating Costs</i>	\$274,000	\$284,850	\$326,400	\$339,600

Proposed budget narrative:

Due to the downturn in the economy, this financial predicts ridership revenue to stay flat at \$349,250 for 2009 and then increase 1% a year thereafter. All other expenses are expected to increase 4%/year. In FY2009 and 2010, we will use the FY2008 ATPPL grant award of \$100,000 to pay a portion of the leasing costs. As projected, both of these years have greater revenues than expenses; this surplus will be used as a contingency fund in case of dramatic swings in ridership revenue or fuel, leasing, or other costs. With the current dire economic situation, it is extremely hard to predict how ridership, fuel costs, and other budget elements may change over the next few years. This will provide a cushion for any hard bounces.

The FY2009 request of \$4,800,000 is for the purchase of 12 new 35 passenger diesel buses. The Volpe/David Evans and Associates Feasibility Study identified a need for 14 buses to meet current and expected demand at peak periods if using 35 passenger buses. However, this analysis did not take into account the potential for riders to stand during peak periods nor did it include the limited existing rolling stock that ESTA will be able to mobilize during peak periods. With these additional factors, 12 new buses will be sufficient to meet current and expected demand during peak visitation.

Based on research in February 2009, the current cost of a 35 passenger bus, plus the 2 years of inflation before funds will be disbursed and obligated, is approximately \$400,000. This price includes the necessary adjustments to ensure safe operation on the Reds Meadow Road, including a retarder equipped transmission for the steep road grade, ADA accessibility features, and a transmission geared for the steep grade. Diesel buses are the only viable option for the Reds Meadow shuttle system. The steep grade of the access road precludes hybrid buses and there are no CNG or other alternative fueling facilities in the region.

c. Cost Effectiveness:

- | |
|---|
| <ol style="list-style-type: none">1. Annual cost for vehicle operations and maintenance (including salaries, fuel, maintenance, administrative expenses related to system, and all other operating costs): \$359,000 including leasing costs; approximately \$301,000 without leasing but including estimated maintenance costs (which are included in the 2009 lease)2. Average annual number of riders: 55,000/year3. Transportation fee or fares recovered (average): \$350,000/year4. Useful life of transportation assets: 12 years <p>Annual cost per passenger trip: This will be automatically calculated by FTA.</p> <p>Annual fare box recovery This will be automatically calculated by FTA. %</p> |
|---|

d. Partnering, funding from other sources:

This proposal is predicated on the new partnership between Eastern Sierra Transit Authority and the Inyo National Forest and Devils Postpile National Monument. ESTA is the federally recognized local transit authority and is a joint powers authority and partnership representing Inyo and Mono Counties, the city of Bishop, and the Town of Mammoth Lakes. The Reds Meadow Shuttle service is the 2nd largest transit operation in the Eastern Sierra and will provide an important cornerstone for ESTA's continued success and growth in the region. The purchase of new buses for ESTA to use for the Reds Meadow Shuttle system will have positive repercussions not just for the 100,000 visitors to Reds Meadow Valley, but also for Eastern Sierra residents and the millions of visitors to the area.



Eastern Sierra Transit Authority

703 Airport Road
P.O. Box 1357
Bishop, CA 93515
760.872.1901

February 25, 2008

Mr. Jeff Marsolais
Forest Recreation and Lands Staff Officer
United States Forest Service
351 Pacu Lane
Suite 200
Bishop, CA 93514-3101

Dear Mr. Marsolais:

This letter is to document the support of the Eastern Sierra Transit Authority (ESTA) for the Forest Services' grant application for buses to be purchased through the Transit in Parks Program. ESTA looks forward to the operation of the Reds Meadow/Devils Postpile shuttle commencing this summer. We believe there are significant benefits to be gained for both our Authority and our passengers through ESTA's operation of this route.

The grant application being submitted by your office will fund the purchase of 12 buses for the operation of this service. These buses will be built to specification for this very unique route. The significant grade of the road requires special transmission equipment in order to provide consistently safe and reliable service. The funds that can be made available through the grant will facilitate the right equipment for the route.

The Eastern Sierra Transit Authority's Board of Directors approved ESTA's operation of the service commencing this summer at their meeting last Friday, and the Board has also been supportive of the long-term plan to procure buses for this distinctive route through the Transit in Parks Program.

Please contact me if I may be of further assistance in any way with regard to your grant application.

Sincerely,

John Helm

John Helm
Executive Director



United States Department of the Interior

NATIONAL PARK SERVICE
Devils Postpile National Monument
P. O. Box 3999
Mammoth Lakes, California 93546
760-934-2289



L3217

February 24, 2009

Office of Program Management, Paul S. Sarbanes Transit in the Parks
Federal Transit Administration
1200 New Jersey Ave., SE.;
E44-417;
Washington, DC 20590

To Whom It May Concern:

I am writing to offer our full support of the Inyo National Forest's Transit in the Parks grant application for the purchase of buses for the Reds Meadow/Devils Postpile National Monument shuttle service. The Devils Postpile National Monument and the Inyo National Forest have worked closely together for the last 30 years to provide a high quality shuttle service for visitors. Surveys consistently show that visitors are extremely pleased with this service.

However, as a partner in this operation, we have witnessed first-hand the challenges in making the shuttle operation sustainable and affordable to visitors. The Park Service, along with the Inyo National Forest, has supported extensive study of the Reds Meadow/Devils Postpile shuttle to find a long term, sustainable solution. The efforts of these studies are finally bearing fruit. Starting in 2009, the Inyo National Forest and the Devils Postpile National Monument are embarking on a new model for operating the Reds Meadow Shuttle by partnering with our local transit authority, ESTA (Eastern Sierra Transit Authority). ESTA will begin operating the Reds Meadow shuttle this coming field season, and begin to provide the seamless transportation system that we all have been working toward here in the Eastern Sierra.

The success of this grant will help ensure this new partnership with ESTA is long lasting. Contracting and leasing of buses is unsustainable: there are few options for short term operations, even fewer options with buses that are appropriate for the difficult operating environment of the high Sierra, and costs are challenging to predict. Purchased buses will also improve the visitor experience and support ESTA as they begin discussions with Mammoth Mountain Ski Area to begin operating their winter shuttle service.

In closing, this grant application is an extremely important step in our efforts to create a sustainable and affordable shuttle operation in Reds Meadow and the Devils Postpile National Monument, and it has our full support.

Sincerely,

/s/ Deanna M. Dulen
Superintendent