



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

**Alternative Transportation in the Parks and Public Lands Program  
Project Proposal for Fiscal Year 2008 Funds – Planning Project**

BASIC PROJECT INFORMATION			
Project Name (Please provide a 1-2 sentence description of the project): Feasibility Study for Developing an ATS at Whitney Portal			
Proposed Funding Recipient: U.S. Forest Service – Inyo National Forest			
Public land unit(s) involved: Inyo National Forest Bureau of Land Management		<u>Location of Project</u> City: Lone Pine County: Inyo State: CA Congressional District: 25th	
Federal Land Management Agency managing the above unit(s): <input checked="" 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 Planning Project: (Implementation projects, please use the alternate form) <input checked="" type="checkbox"/> Planning	
<input checked="" type="checkbox"/> Proposal is to plan for a possible new alternative transportation system where none currently exists. <input type="checkbox"/> Proposal is to plan for a possible expansion or enhancement of an existing alternative transportation system.			
ATPPL Funding Requested during FY 2008 \$200,000		<b>Total</b> Cost of Planning Project at Completion (All sources) \$200,000	
Were you awarded FY 2006 or FY 2007 ATPPL funds? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer "Yes," please provide amount awarded: \$267,000			
Do you plan to request additional ATPPL funds in future years? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>(Note: If you wish to compete for future ATPPL fiscal year funds you must reapply).</b>			
If answer "Yes," please specify ATPPL proposed funding levels for out years below:			
FY 2009 \$200,000	FY 2010 \$200,000		
FY 2008 Funding Amounts from sources other than ATPPL funds? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If answer "Yes," please specify funding levels per source below:			
State \$	Local \$	Federal (other than ATPPL) \$	Private sources \$

### CONTACT PERSON

Name: Jeff Marsolais

Phone: (760) 873-2515

Position: Forest Recreation and Lands Officer,  
Supervisor's Office

E-mail: jmarsolais@fs.fed.us

Address: 351 Pacu Lane, Suite 200, Bishop, CA 93514

### OTHER PROJECT SPONSORS (in addition to funding recipient)

**Eastern Sierra Transit Authority, Bureau of Land Management, Lone Pine Chamber of Commerce (additional Letters of Support are available upon request)**

### 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.
- The planning project will analyze all reasonable alternatives, including a non-construction option.

### BASIC PROJECT DATA

Number of Visitors (Annual): 200,000

Daily Number of Visitors (Peak season): 2,500

Average Number of Vehicles per Day at Peak Visitation: 962

Current Road Level of Service at Peak Visitation: E  
(Please consult guidance where available on determining this variable. You may use observational accounts or pictures to provide an assessment of this datum for FY 2008 proposals).

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

Spring       Summer       Fall       Winter

Current Carrying Capacity of Existing Roads: 400 (vehicles/day) **This figure is an estimate; the proposed feasibility study will address the need for a more accurate statistic.**

What percent of that capacity is the site operating at during peak periods? 100 %

Current parking shortages during peak visitation: 600 **This figure is an estimate and requires further study (hence the proposed feasibility study).**

Current Number of Persons who use the alternative transportation system (if one already exists) at peak visitation:

N/A (average number of visitors/daily at peak)

Estimated Annual Number of Persons who will use the alternative transportation system at project completion: 135,000 (anticipated number of riders or users/annually)

Average number of auto collisions with wildlife in the area? 5 collisions/year **This figure is an estimate; the proposed feasibility study will address the need to gather more empirical data on this issue.**

## Executive Summary

As the most visited forest in the Pacific Southwest Region, the Inyo National Forest serves as a host to some of the most iconic landscapes in the western United States. One of its most popular destinations, Mt. Whitney soars 14,496 feet above the Owens Valley floor below, beckoning visitors from around the world, the country, and within the state of California to its granite walls. At its base rests a recreation area known as the Whitney Portal. Just under twelve miles from the town of Lone Pine, the Portal provides a gateway to visitors keen on exploring the area's recreational opportunities. Whether fishing Lone Pine Creek, enjoying a picnic lunch, embarking on a Herculean climb, or camping at the base of such an imposing monolith, visitors use the Portal as a multi-purpose staging area. Two trailheads, a seasonally-operated General Store, two comfort stations, assorted picnic tables and firepits, and three separate parking areas – a day-use, an overnight, and an overflow – comprise the site's infrastructure. A family, group, and backpacker campground, along with a cluster of twenty-seven Forest Service summer recreation residences, sits just adjacent to these facilities.

Mt. Whitney's popularity remains proportionate to its staggering height. Every year, an estimated 200,000 people visit the Portal, the bulk of which arrive during the summer months (peak season). Although precise figures for overall visitation are not available, accurate statistics managed annually by the Wilderness Permit Office and the Campground Concessionaire provide some insight to the site's popularity. In 2007 alone, the overall number of wilderness users associated with the Portal reached over 44,000 individuals. Campground visitation also reflects high visitation, with all three campgrounds (family, group, and trailhead) accounting for over 22,746 visitors in the summer of 2007. These immense numbers, however, do not reflect the majority of visitors who engage in non-wilderness related activities. During a crowded holiday weekend, an estimated 2,500 people descend on the Whitney Portal, with visitation hovering closer to 1,500 people on less busy days. (The INF, however, strongly suspects that these estimates are extremely low.) The duration of these visits range from a mere fifteen minutes to multi-day stays. With such heavy use, the Whitney Portal represents one of the Forest's most important resources, and correspondingly, one of its most impacted resources.

Currently, a modestly sized parking area must meet the needs associated with this high level of visitation. In reality, however, it cannot. With only 300 parking spaces available but as many as 2,500 visitors (or 962 vehicles, based on a 2.6 passenger multiplier) at the site over the course of a busy day, gridlock, traffic congestion, and frustration ensue. The visitors, however, are not the only victims of this ill-equipped system. The wilderness character of Mt. Whitney continues to suffer degradation from detrimental impacts on air quality, water resources, wildlife habitat, native vegetation, and natural soundscapes that accompany traffic congestion at the site. Moreover, within this vehicle-dominated system, visitors who do not own their own vehicle or who do not have the ability to operate a vehicle are deprived of the opportunity to visit the Portal and take advantage of the many recreational opportunities it offers. While there is limited bus service along the US 395 corridor (principal arterial route in the region) to and from the nearby community of Lone Pine 11.4 miles away, an alternative transit system does not exist to serve this popular destination.

A TAG (Transportation Assistance Group) report completed in 2007 summarizes a four-year history of transportation planning and development undertaken between the Inyo National Forest (INF) and other federal, state, county, and local stakeholders. The report identifies the Whitney Portal as a strong candidate for alternative transit and advises coordination between the National Forest and interested partners to establish a sustainable, integrated system. With several transportation studies for the region already accomplished, including three for another Inyo National Forest unit, and a newly created regional transit authority (Eastern Sierra Transit Authority) now in place, the Inyo National Forest feels opportunity is ripe for addressing the transit needs of Whitney Portal. To facilitate ease of visitation, reduce impacts associated with traffic congestion, mitigate environmental impacts, expand interregional transportation, and improve the overall visitor experience at Whitney Portal, the Inyo National Forest, in partnership with the Eastern Sierra Transit Authority, plans to implement an alternative transportation system (ATS) from the town of Lone Pine to Whitney Portal. Before implementation can occur, however, further research and study must be accomplished to determine what kind of ATS—if any— would best suit the region's visitation needs. A comprehensive transit planning effort will lend savings, efficiency, and coordination to implementation endeavors by prioritizing capital investments, developing timeframes, and facilitating interagency and stakeholder synchronization.

## Project Description

The Whitney Portal is situated within Inyo County – the second largest county in the State of California. Tourism remains the largest contributor to the local economy and as such, the County identifies several strategies in its General Plan to encourage tourism's livelihood in the region. According to its General Plan (December 2001), the County "shall encourage public agencies to develop new tourist serving facilities or otherwise enhance their *capacity* to serve visitors on the public lands they manage." The Inyo National Forest (INF) recognizes the region's reliance on tourism and as such, seeks to support its economic base without compromising the quality and character of the natural resources it manages.

Although an actual figure remains to be determined for the Portal's desired capacity level, observations by INF land managers and partners reflect the site's current inability to support the high levels of visitation it receives. While visitation to the region is expected to rise over the next twenty years, the Forest does not wish to increase Whitney Portal's carrying capacity. Visitation levels experienced in the summer season of 2007 represent a maximum number of people at one time (PAOT) for the recreation site per management guidelines described in the Forest Plan (Land and Resource Management Plan, 1988). Rather, forest resource managers have identified the need to improve the site's current infrastructure in order to better sustain its PAOT capacity while improving resource conditions.

Both the County and the INF identify public transit as a means of managing increased tourism in the region as well as meeting mutual environmental and accessibility goals. Improved air quality, mitigation of environmental impacts, energy conservation, increased visitor mobility, and integrated transit systems represent key targets for both organizations. To better meet these objectives, the two identify the implementation of alternative transportation in their management plans. Under the County's General Plan, the promotion of a "voluntary reduction of vehicle miles...to promote energy conservation and reduce air pollution" by way of developing transit alternatives serves as one of its primary circulation objectives. Similarly, the INF tasked itself with "[considering] mass transit options when vehicle use exceeds the capacity of existing roads or threatens...resource values" (Land and Resource Management Plan, 1988).

Before implementation of public transit can occur, a comprehensive study of the recreation site and adjoining community must be completed. Commonly referred to as a transit feasibility study, the study would supply critical planning information for future implementation efforts. The study would include data collection and analysis (visitation trends, vehicle counts, headway, etc.) as well as address the development of a pro forma, integration with existing transit services, review of potential routes, discussion of contracting mechanisms, review of vehicle maintenance and storage needs, phasing, and other ATS infrastructure requirements. Currently, the INF and Inyo County maintain minimal transit statistics, with the former generating much of its data from forest staff and concessionaire observations. Gathering empirical data remains tantamount to the development and implementation of a successful and sustainable transit system.

An ATPPL-funded feasibility study would analyze possible alternatives to address the problems associated with visitor experience, accessibility, and associated environmental impacts at Whitney Portal. Findings from this study could inform future transportation planning and resource management decisions elsewhere on the Forest and Eastern Sierra region. Specific alternatives examined by the study would include: the construction of a new parking area; the installation of barriers, fences, railings, and additional signage; a parking reservation system; a myriad of ATS options; and no action. The INF, however, feels that opportunity is ripe to develop an alternative transportation system. The proposed system would eliminate the need for additional parking while enabling previously underserved or disenfranchised segments of the visiting public to enjoy the Portal. Moreover, it would allow for the restoration and rehabilitation of the area's natural environment by reducing overall traffic congestion while improving visitor experience and mobility and returning the area to its former pristine setting.

Through the support of ATPPL grant funds, the INF would carry out a transit feasibility study with assistance from a variety of sources, including transportation experts, consultants, engineering firms, planners, partners, and other authorities. The study would quantify visitation patterns and traffic trends while analyzing potential alternatives, funding strategies, transit schedules, phased implementation, contracting methods, and other logistics necessary in the development of a successful, integrated, and sustainable ATS. Land managers and regional transportation partners would be able to discuss alternatives generated by the transportation study and ultimately elect the best solution for the Whitney Portal and the region as a whole.

## **1. Demonstration of Need**

### **a) Visitor mobility and experience:**

In stark contrast to its sizeable visitation, the Portal's transit infrastructure—specifically its parking facilities—is disproportionately small. Of the 300 available parking spaces at the site, 225 are paved and the remaining 75 are unpaved, roadside parallel slots. The majority of these spaces are occupied by wilderness users (day-hikers and backpackers), leaving the remainder for alternative recreation seekers (anglers, sightseers, picnickers, etc.). The Wilderness Permit Office sets the daily trail quota for the Whitney trailhead at 100 day-use and 60 overnight individuals. Although a maximum of 160 quota spaces are available on any given day, many of the overnight permit holders overlap each other in their stays—as many as 180 at one time. Therefore, while 60 overnight hikers may embark over the course of one day, an additional contingent of permit holders may still be somewhere in the Whitney wilderness and therefore, their vehicles remain parked at the Portal. Hikers who start the 211-mile John Muir Trail from its southern terminus at Mt. Whitney often leave their vehicles for as long as three weeks at the Portal. This overlap in PAOT (persons at one time), long-term parking use, and the additional pressures of day-use visitors places substantial strain on the limited parking facilities. Wilderness permit holders alone account for an estimated 16,923<sup>1</sup> vehicles at the Portal over the course of the year. In 1997 the Forest addressed this critical shortage by installing a new overflow parking area. Eleven years later, the shortage persists, and once again, available parking has become an issue for visitors and resource managers alike.

This significant parking shortage at Whitney Portal results in substantial traffic congestion. After making the forty-five minute steep, windy drive from the town of Lone Pine, drivers find themselves faced with the stressful and frustrating challenge of locating a parking space. Often, this translates to visitors circling the parking areas and cruising up and down the roadway in search of a vacated spot. Rather than enjoying the natural setting, visitors find themselves subjected to traffic delays and gridlock. Those that are fortunate enough to have found a free parking space must now suffer the noise and emissions associated with a constant stream of vehicle traffic. In light of these circumstances, frustrated visitors often accost Forest Service personnel and the store concessionaire to inquire as to whether or not a shuttle exists. What should be a quiet, pristine place surrounded by the sights and sounds of a Jeffrey Pine forest is instead, a familiar scene to any urban dweller: a crowded parking lot ringing with engine noise and inundated with gasoline and diesel odors.

While the current system – or lack thereof – at Whitney Portal encourages the use of private vehicles, it simultaneously precludes individuals who do not own their own vehicle, who are without a driver's license, who are low-income, or who are disabled from visiting the area. Due to the current lack of a public transit system serving this area, disabled and elderly drivers are faced with the daunting challenge of navigating a steep, windy mountain road in order to reach the Portal. Those without access to a vehicle of their own are forced to rely on friends or family to make the journey. If those options do not exist, then making the trip proves to be impossible altogether. A significant portion of the Inyo National Forest's visitors are over the age of 65 (10.8% based on U.S. Census Bureau) and there are over 5.9 million Californians with disabilities—many of whom travel to the region. Additionally, the Eastern Sierra boasts the highest per capita number of service workers in the State and has a Hispanic Population of 17.7%.<sup>2</sup> Many of these individuals do not have driver's licenses and therefore find visiting destinations like Whitney Portal unfeasible.

### **b) Environmental condition as a result of the existing transportation system:**

As the quality of the visitor experience at the Whitney Portal has become largely impacted due to the lack of parking and public transit, so too has the resource. Parking shortages encourage visitors to park where they otherwise would not, resulting in native vegetation and tree roots crushed under tires. Akin to Reds Meadow Valley, another popular recreation area on the Inyo National Forest, this continued stress on vegetation, diminished soundscapes, and strain on air quality ultimately result in impairing the wild and pristine character of Whitney Portal. While a mandatory shuttle system initiated over 28 years ago mitigated those impacts in the Reds Meadow Valley, the Portal continues to experience a degraded natural environment.

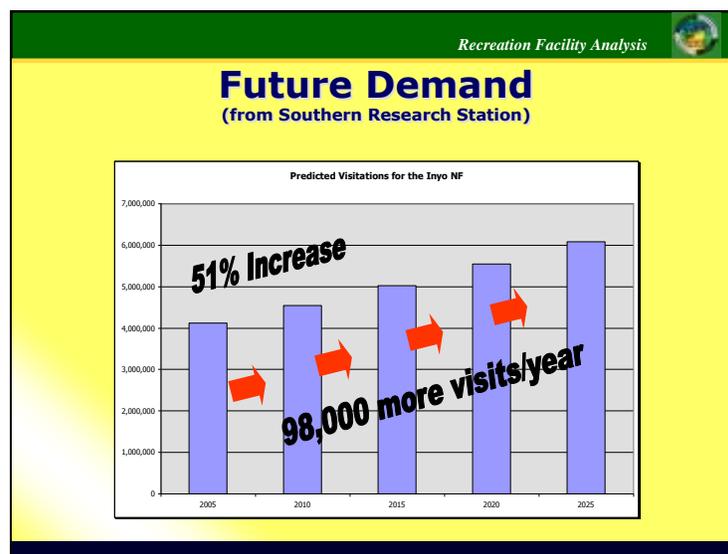
Additionally, the 75 roadside spaces brought about from increased visitation cause damaging soil compaction and an increase in non-point source pollution via water run-off. Compacted dirt surfaces rank 72%

<sup>1</sup> This figure was determined using the total number of wilderness users from 2007 and applying the vehicle multiplier of 2.6 (used in the 2007 Reds Meadow/Devils Postpile Feasibility Study to be published in March 2008).

<sup>2</sup> Eastern Sierra Expanded Transit System (ESETS) Field Report, 2004.

impervious, not far behind asphalt surfaces that are comparatively ranked at 90% impervious<sup>3</sup>. The current roadside parking system contributes an estimated 132,608 L (4,683 cubic feet)<sup>4</sup> of run-off annually to the adjacent Lone Pine Creek and groundwater supplies. This runoff contains an assortment of pollutants, including copper, lead, zinc, and assorted volatile suspended solids. The construction of additional parking to meet current visitation levels would only exacerbate this problem.

Although the state of California ranks worst in air quality in the nation<sup>5</sup>, the Eastern Sierra has somehow managed to escape this blight. Every year, over 3.5 million visitors – many from the smog-filled valleys of Southern and Central California – seek refuge in the crisp, clean sapphire blue air that characterizes the Eastern Sierra. This intangible resource, however, is threatened by the prospect of an additional 98,000<sup>6</sup> visitors (and their vehicles) per year on the Inyo National Forest and a state population that continues to grow at the staggering rate of 500,000<sup>5</sup> annually. The estimated 962 vehicles per day that descend upon Whitney Portal in the summer months already strain local air quality and compromise natural soundscapes. As that number continues to grow, decreased air quality and increased noise pollution will follow. These two problems associated with traffic congestion further diminish the wilderness experience most visitors come to the Portal to enjoy.



The above chart illustrates anticipated growth in visitation on the Inyo NF based on National Visitor Use Monitoring statistics.

Wildlife does not enjoy immunity either from the problems associated with traffic congestion and hundreds of parked cars. Each summer, black bears and mule deer share the Whitney Portal road with visitor traffic. Although collisions with large mammals are not frequent, they do occur. A few years ago, visitors informed the Whitney Portal General Store owner of a bear-vehicle collision. The spring and autumn months in the Eastern Sierra play host to a massive mule deer migration in which the deer make their way from the lowlands to their mountain pastures and vice versa. Drivers must take care to avoid hitting the deer as they make their way east and west. Each season many deer fall victim to this fate.

Of greater concern, however, is the persistent problem of food storage and black bears. While there are approved bear-resistant food lockers at the Portal, black bears continue to break into parked vehicles in hopes of hitting paydirt. Moreover, busy weekends during peak season place additional strain on the already overloaded trash receptacles. When dumpsters reach maximum capacity and overflow, the situation is ripe for opportunistic bears in search of an easy meal. There are currently five bears active in the Portal area and although break-ins have been reduced in past seasons from as many as ten per day to four or five per month, they still occur. Eventually, problem bears who fail to break the habit of molesting visitor property may be

<sup>3</sup> U.S. Soil Conservation Service, *Hydrology, Section 4, National Engineering Handbook*, Washington, D.C. (1972)

<sup>4</sup> Figures supplied by the Inyo National Forest Hydrologist using U.S. Soil Conservation Service coefficient.

<sup>5</sup> Fulton, William and Shigley, Paul, *Guide to California Planning*, 2005.

<sup>6</sup> National Visitor Use Monitoring, U.S. Forest Service, 2005.

removed by California Department of Fish and Game. This scenario results in wildlife paying the ultimate price due to human negligence—a cycle that could be broken if vehicle numbers were reduced at the Portal.

## **2. Methodology for Assessing -- Visitor Mobility and Experience Benefits of Project**

### **a) Reduced traffic congestion:**

In 2007, 16, 241 people obtained permits to hike Mt. Whitney (not including other trailhead users who also use the Portal to access wilderness destinations), the majority of which did so during peak season (June through September). Based on these wilderness use numbers, as well as visitation figures for other popular destinations on the Forest with similar use patterns, estimates of overall use for the Whitney Portal hover around 200,000 annually. With the highest visitation occurring during peak season, as many as 175,000 visitors recreate at the Portal during a four-month period. Day users such as anglers, picnickers, sightseers, and campers account for approximately 80% of the total visitation. Aside from a specific contingent of wilderness permit holders as well as day-users with special needs (some visitors with disabilities, visitors hauling stock or boat trailers, etc.), the majority of visitors to the Whitney Portal represent eligible candidates for alternative transit ridership.

By tracking permit issuance at the IAVC and placing observers strategically at trailheads and parking areas, the proposed transit study would compile a composite image of visitor use patterns and corresponding transit needs. Currently, an understanding of these trends originates from forest staff (Wilderness Permit Office) and concessionaire (Whitney Portal General Store) observations. According to these observations, approximately 90% of day-use hikers begin their ascent of the Whitney trail before 6:00am. In comparison, forest staff estimates that only 10% of overnight trail users start their trips this early. Throughout the day, however, a multitude of day-use visitors venture to the Portal for non-wilderness recreational pursuits. Even locals from the surrounding communities of Lone Pine and Independence admit to seeking brief refuge from the intense summer heat of the Owens Valley at the higher elevation of the Portal. Between tour groups, picnickers, passersby, photographers, sightseers, fishermen, climbers, and local residents, an entire army of day use visitors prevails upon the site and contributes to the growing traffic congestion.

Although the proposed feasibility study would provide better details for what sort of ATS to implement, one proposal for an alternative transit system suggested by Forest managers—a modestly sized shuttle bus with pick-up points at the Interagency Visitor Center and the town of Lone Pine—would operate between 6:00am and 7:00pm (estimated hours of heaviest use at the Portal). Using these parameters, approximate use of an alternative transit system by wilderness permit holders and day use visitors can be predicted. Additional figures reflecting campground occupancy also informs potential ridership estimates.

*Based on these visitation trends, the following table illustrates anticipated use of an alternate transportation system and the resulting reduction in vehicle trips.*

<b>Visitor Category</b>	<b>No. of Visitors (Peak Season)</b>	<b>No. of Vehicles (Peak Season)</b>	<b>Anticipated ATS Riders (Peak Season)</b>	<b>Vehicle Trips Reduced (Peak Season)</b>	<b>Average Number of Vehicle Trips Reduced (Daily)</b>
Day-Hikers	32,542	12,516	24,365	9,371	78
Overnight Hikers	10,809	4,157	9,728	3,742	31
Day-Use (Comprised of anglers, sightseers, picnickers, etc.)	108,403	41,693	97,563 (Assuming 10% will have special needs/stock trailers/etc. and must drive to WP)	37,524	313
Campers	22,746	8,748	11,373 (Assuming 50% of campers will use the service)	4,374	36
Recreation Residence Owner	500	144 (Assuming 75% of cabins are occupied throughout peak season and that	375	288 (Assuming 75% of cabin owners will use the ATS twice each day)	2

		owner has at least one vehicle)			
<b>TOTAL Number of Vehicle Trips Reduced per Day:</b>					<b>460</b>

By removing 460 vehicles on any given day during peak operating season, an alternative transit system would markedly reduce traffic congestion. So much so, that the Inyo National Forest anticipates removal of the 75 spaces along the roadway along with the smallest of the three paved parking lots. In reducing the number of available parking spaces, visitors would have additional encouragement to take advantage of a low-cost transit system. Furthermore, in providing a convenient alternative to driving their own vehicles into Lone Pine, recreation residence owners as well as occupants of the adjacent campground would most likely choose to leave their cars behind in lieu of an ATS. This visitor use pattern has already been observed in Reds Meadow Valley, where RV and tent campers alike frequently elect to leave their personal vehicles back at their campsite and ride the shuttle to their destination instead.

All of these estimates, of course, rely on incomplete visitor use data and human observation as well as focus primarily on wilderness users, for whom the Forest harbors the most accurate statistics. Inyo National Forest managers predict that empirical observations conducted during the transit feasibility study would reveal substantially larger visitor numbers. If day-use at the Portal trumps wilderness use by an estimated 80%, then the approximate 44,000 individuals representing wilderness users implies the existence of another 156,000 day-users (peak season). Furthermore, if the majority of wilderness users begin their journey prior to 6am, an ATS such as the one described above would primarily serve day-users. An accurate measure of day-use visitation that includes demographics, trends, and vehicle patterns remains critical to developing a sustainable, efficient transportation system. Moreover, a definitive number of vehicles would result in better estimations of vehicle trip reductions and the corresponding decrease in emissions and noise pollution.

Proper planning and eventual implementation of a sustainable ATS would result in mitigating visitor aggravation associated with current parking shortages and improve the overall visitor experience at the Portal. Rather than experiencing the frustration of making a 45-minute drive from Lone Pine to Whitney Portal only to be greeted with a series of full parking lots at the destination, visitors would be able to leave their vehicles behind at one of several transit stops (in Lone Pine and at the IAVC) and ride an ATS instead. Stress, anxiety, and time lost due to searching for an available parking space would no longer accompany the journey visitors make to the Portal. By choosing to ride an ATS, visitors would eliminate hundreds – if not thousands – of vehicles from the Portal *daily* and thereby reduce overall traffic congestion that currently affects the site.

**b) Enhanced visitor mobility, accessibility, and safety:**

The INF’s Forest Plan indicates “[providing] public access to public land and developed recreation sites, consistent with Forest goals and objectives” as a key target. Current statistics illustrating the number of disabled or elderly individuals who visit Whitney Portal are not available due to a lack of formal study at the site. Based on California census information, however, INF managers suspect that these user groups would represent a significant portion (10-15%) of visitation to the area if an ATS existed. The proposed feasibility study would identify alternative transportation systems that comply with ADA accessibility standards while including region-specific features and standards necessary to make the high altitude drive from Lone Pine to Mt. Whitney. Regardless of the type of vehicle selected, the system’s fleet would also be equipped with ample storage for items such as backpacks, gear, and ice chests, as well as bike racks that enable visitors of all recreation categories to ride the shuttle. Several transit stops strategically located in the town of Lone Pine (one at the Interagency Visitor Center, and several downtown to be identified by the transportation study) would facilitate travel from the region’s principal arterial—the U.S. 395 corridor— to the Whitney Portal 11.4 miles away. By working in close partnership with the Eastern Sierra Transit Authority, CalTrans (California Department of Transportation), the Lone Pine Chamber of Commerce, and other stakeholders, the INF would coordinate a transit schedule that allows for integration with other regional transit systems.

The ATS would address the needs of those visitors previously underserved in the region by a lack of public transit. An entire segment of the visiting public formerly unable to access the Portal will find that a new alternative transportation system will empower them to do so. The Eastern Sierra hosts a large percentage of low-income residents, many of whom currently do not own their own vehicle. Within this lower income demographic, a substantial percentage of workforce laborers exist who do not possess driver’s licenses. As these individuals establish residency in the region and endeavor to raise families, their children will remain deprived of the opportunity to experience and develop connections with their natural surroundings unless alternative means of reaching destinations like Whitney become available. Similarly, the disabled and the elderly find travel to the Portal challenging, particularly due to the steep, narrow winding road that leads to it.

An ATS integrated with existing transportation services in the region and equipped with state-of-the-art ADA lifts, low floors, and accessibility components would encourage ridership amongst this segment of the visiting public. By coordinating with the local transit authority, the proposed shuttle service would develop an integrated schedule with regional transit systems to further foster ease of travel to and from the Lone Pine area for these visitor groups who begin their journey outside of the immediate area.

Additionally, an alternative transit system would address several critical visitor safety concerns. According to the American Public Transportation Association (APTA), riding public transit is 170 times safer than driving one's own automobile. Vehicle traffic dominates the current system of accessing Whitney Portal. On weekends in particular, pedestrians must share the roadway with a high volume of motorized traffic. With no sidewalks and the additional hazard of a narrow roadbed (single lane in many places), the potential for human-vehicle collisions looms. In removing several hundred vehicles (including RVs, tour buses, and other large profile vehicles) each day from the narrow, windy road, the ATS would help mitigate the risk of hikers, day-users, bicyclists, and horses colliding with one another. This reduction would also alleviate the potential for large mammal collisions (mule deer and black bears) that typically occur along the stretch of roadway between the Alabama Hills and Lone Pine over the course of the peak operating season.

An ATS would also address current property damage issues associated with the Portal. The high level of vehicle traffic currently impacting the site brings with it an equally large quantity of garbage. Private vehicles enable visitors to bring large amounts of food with them. Backpackers find themselves lightening their loads and removing excess food provisions before embarking on their Mt. Whitney climb and day users often elect to discard surplus picnicking rations at the end of their day. When a day's worth of food creates bags of refuse, visitors jettison the trash at the site rather than bringing it back to town with them. The existing infrastructure of bear-resistant food lockers and dumpsters remains ill-equipped to handle this overwhelming amount of refuse and bear management issues ensue, often resulting in property damage to visitors' vehicles. An ATS would force visitors to bring only what they need, reducing the amount of food requiring storage at the Portal as well as the associated garbage it generates. Ultimately, the number of vehicle break-ins and resulting property damage at the site would decrease as more visitors ride the ATS to the Portal.

Through a transportation feasibility study, accurate baseline data on ridership groups (elderly, low-income, and disabled), the frequency of safety incidents (vehicle-pedestrian and vehicle-wildlife collisions), and occurrence of vehicle break-ins by black bears could be assembled. In out years, after implementation of an ATS has been accomplished, these transit objectives and management concerns could be tracked in comparison to previously existing conditions.

### **c) Visitor education, recreation, and health benefits:**

Not only will an ATS reduce the aggravation associated with locating a parking space, restore the wilderness character of the Portal through a decrease in traffic congestion, and improve visitor accessibility, but it will also contribute to increased visitor understanding and education as well as visitor health. Should a shuttle system be selected for implementation, shuttle operators could relay educational information to their passengers, with focus placed on the geologic and cultural history of the area. Eventually, shuttle operators might be replaced with an on-board audio system featuring a pre-recorded tour, but regardless of the method of delivery, an ATS would increase visitor knowledge and understanding of the natural and cultural resources of the area. What would otherwise be a 45-minute commute becomes an informational excursion that explains the significance of Mt. Whitney and the Eastern Sierra to visitors in geologic, cultural, and natural history terms.

Shuttle operators would also be tasked with disseminating critical health and safety information specific to the Mt. Whitney and High Sierra environment. Every year, hikers and day-users alike fall victim to the effects of high elevation. At just over 8,100 feet above sea level, the Whitney Portal serves as the textbook setting for altitude-related illnesses. The ATS would provide a venue in which trained shuttle operators would inform the public of the signs and symptoms of high altitude sickness as well as the treatment. Visitors intending to hike the Whitney trail could be warned of the hazards associated with such an undertaking, including the risk of lightning strikes, and more acute forms of altitude sickness – HAPE and HACE (High Altitude Pulmonary Edema and Cerebral Edema). By providing a reliable source of visitor safety information, the ATS would lead to an overall reduction in the number of search and rescues and wilderness medical interventions required every year.

Lastly, by providing an accessible, convenient form of transit to the remote destination of Mt. Whitney, an ATS will help foster a connection between previously underserved visitor groups (such as the disabled and

low-income) and an important natural resource. Public education and natural resource interpretation remain critical to the future conservation and appreciation of public lands. By delivering user groups to the Portal who otherwise would be unable to make the journey, an ATS would enable these visitors to participate in a myriad of meaningful, healthful recreational activities. What had been an obscure and ambiguous destination for these individuals would turn into a treasured and valued setting.

Other non-ATS alternatives such as the “no action” option and the addition of signage and barriers in lieu of public transit would be reviewed by the feasibility study for their educational, health, and safety merits. Comparisons of the efficacy of methods and tools applied by the variety of alternatives proposed to address these management concerns would be made, informing land managers and planners of the alternative best equipped to tackle these issues.

### **3. Environmental Benefits**

#### **a) Protection of sensitive natural, cultural, and historical resources:**

The proposed transit feasibility study would review all identified alternatives (including no action) in light of their ability to address growing natural resource concerns at Whitney Portal. Based on results experienced on another INF unit (Reds Meadow Valley), an ATS would facilitate a dramatic reduction in traffic congestion and the environmental impacts it creates. Fewer vehicles at the Portal correspond to fewer native plants and soils suffering from tire compaction. Reduced vehicle trips would decrease noise pollution and vehicle emissions, allowing for restoration of air quality and natural soundscapes at the site. Additionally, an ATS would engender a reduction in wildlife-vehicle collisions. Current estimates of these collisions are artificially low due to a lack of reporting but fewer vehicles on the roadway translate to a direct decrease in collision rates. Not only would this be true for Whitney Portal but an ATS integrated with existing regional transit services would foster region-wide reductions in traffic congestion. Increased ridership on a well-coordinated interregional transit system would significantly lessen traffic-related impacts on air and water quality, soundscapes, wildlife, and other natural resources throughout the region.

Although the Forest maintains baseline data on natural and cultural resources within the Whitney Portal zone, it has not focused studies specifically on the effects of traffic congestion on these resources. In 1988, the Forest Plan identified Whitney Portal as a Concentrated Recreation Area (category 12). Under this classification, management “emphasis is on providing a broad range of facilities and opportunities that will accommodate large numbers of people safely, conveniently, and with little resource damage.” The current visitation levels and associated traffic congestion at Whitney Portal clearly challenge this management objective. A feasibility study could fund resource specialists to conduct vegetation surveys, water monitoring, soil samples, and other essential resource monitoring processes. Assessments of current resource conditions at the Portal and a determination of preferred conditions for each resource would help inform the overall transportation plan for the Portal and Eastern Sierra region. Designing an ATS that aids in attaining these determined conditions and standards for natural resources directly complements the Forest Plan and defined management goals for the Whitney zone.

Energy efficiency and the “greening” of public lands remains a high priority for the Forest Service. Inyo County and the INF consider renewable energy and energy conservation critical to the sustainability of the resources they manage. Both entities include these objectives in their general management plans and the INF’s 2007 Business Plan refers to the implementation of energy conservation strategies and the development of renewable energy sources as high priority objectives, reflecting the direction given by the Federal Energy Management Program and Energy Policy Act of 2005. A feasibility study would address appropriate green technologies for a transportation system, given the fact that a Whitney Portal ATS would need to operate in high elevation conditions. Within this setting, not all fuel and vehicle types are appropriate. Alternative fuels consistent with these conditions could be identified by the feasibility study, with the end goal focused on overall energy efficiency and financial sustainability of the system. A 2004 Federal Transportation Administration report entitled “Federal Lands Alternative Transportation Systems Study” identified a multitude of energy-efficient transit technologies appropriate for use on federal land units. Within the last four years, these technologies have greatly improved. A transportation engineer or consultant would be able to apply these 2004 recommendations to suggested alternatives highlighted in the feasibility study, while incorporating the latest technology advances and industry standards.

A transit feasibility study that includes primary data collection, visitor use trends, baseline natural resource conditions, and review of available green technologies would facilitate a well-planned and well-

designed ATS. An ATS would eliminate the need to expand current parking facilities, thereby keeping the built environment to its current limited size and avoid altogether increasing the amount of impervious surfaces and increased run-off associated with those surfaces. As the proposed ATS becomes more popular and the need for parking decreases, INF managers intend to remove an entire parking lot (30 spaces) as well as the additional 75 roadside spaces. With this shrinking of the built environment, pavement would yield to native surfaces and vegetation, and the Portal would cease to resemble an urban parking lot—better able to blend with its adjacent natural surroundings.

#### **b) Reduced pollution:**

According to APTA, public transportation generates 95% less carbon monoxide, 92% less in volatile organic compounds, and about 50% less in carbon dioxide and nitrogen per passenger mile in comparison to private automobiles. Using current visitation estimates, approximately 884 metric tons of pollutants are released annually by the estimated 76,923 vehicles that access Whitney Portal<sup>7</sup>. These emissions contribute to the overall detriment of the region's air quality and ultimately impact the Portal's viewshed. Instead of majestic granite vistas, pine tree backdrops, and sapphire blue skies, visitors to the Portal often experience hazy blue horizons caused by vehicle exhaust and a cacophony of noises associated with the myriad of cars accessing the trailhead. By reducing the number of vehicle trips to the Portal, an ATS would substantially reduce vehicle emissions and allow for the improvement of air quality in the Eastern Sierra. The recreation site's once pristine viewshed would return and the distracting urban sounds of idling engines and squeaky brakes would decrease.

Soil compaction also remains an issue of critical environmental concern. The current parking structure accounts for 75,000 square feet of compacted soil, the majority of which rates 90% impervious (asphalt) by the U.S. Soil Conservation Service. An ATS would allow for the removal of an estimated 105 parking spaces, or 0.172 acres of asphalt and 0.43 acres of compacted soil. Together, these regions of highly compacted soil contribute approximately 7,805 cubic feet of runoff during intense storm events<sup>8</sup>. Shorter rainfall periods associated with seasonal Eastern Sierra thundershowers produce an estimated 187 cubic feet of runoff per event. Eventually, pollutants contained in the runoff make their way into Lone Pine Creek and local groundwater supplies. Suspended solids such as nitrate and nitrite, and other volatile suspended solids like copper contribute to the mix of these pollutants. ATPPL Planning Grant funding could provide for the close monitoring of the Whitney Portal watershed, allowing for pre-rehabilitation baseline data to be collected. In future seasons, once the INF implements an ATS, hydrologic data can be compared to data collected prior to the onset of an ATS and should indicate substantial improvements as a direct result of the removal of parking spaces.

### **4. Methodology for Assessing – Operational Efficiency and Financial Sustainability**

#### **a) Operational efficiency:**

The Inyo National Forest's relationship with alternative transportation systems spans over a quarter of a century with the implementation of the mandatory Reds Meadow Shuttle Bus in 1979. Experienced gleaned from overcoming operations, logistics, and funding hurdles over that timespan, in combination with planning information provided by a comprehensive transit study, will equip the INF with the tools and methodology needed to operate an ATS efficiently and effectively through the 21<sup>st</sup> century. The Forest credits the Reds Meadow shuttle system with the restoration of Reds Meadow Valley's pristine setting, which, similar to Whitney Portal, had suffered from years of soil compaction and degradation of native vegetation due to parking constraints and high levels of visitor use. Although the two sites maintain distinct differences in their settings, resources, and wilderness use patterns, both share in the negative environmental impacts, sullied visitor experience, and safety concerns associated with traffic congestion and lack of parking.

The alternatives offered will pose solutions to the environmental and recreational challenges mentioned above while simultaneously demonstrating their operational merits and deficiencies. The feasibility study will identify a minimum headway, possible routes, passenger capacity, schedules, staging areas, and operational season for the proposed ATS. Concerns such as ease of use, signage, location of bus stops, frequency, and ability to transport anticipated ridership will be discussed within the context of each alternative. Limited visitation and transportation statistics for the Whitney Portal prevent INF and Eastern Sierra Transit Authority managers from postulating potential ridership at this time. A feasibility study will produce valid

<sup>7</sup> CEQA Handbook – Air Quality Analysis Emissions Factors (EMFAC), 2007.

<sup>8</sup> Figures supplied by the Inyo National Forest Hydrologist using U.S. Soil Conservation Service coefficient. visitation figures and vehicle counts to determine overall need and levels of service for a future ATS.

To offer contrast to the implementation of an ATS, the feasibility study will also address the operations logistics of the other proposed alternatives. Additionally, maintenance, contracting, phased implementation, and additional infrastructure needs will be identified for each alternative. Analysis and discussion of long-term sustainability and challenges to operational efficiency for all identified alternatives will also be included.

#### **b) Financial feasibility:**

An appropriate fare structure indicative of operating costs and reflective of anticipated additional funding support will be developed for the ATS alternative as part of the feasibility study. The INF has already identified possible sources of agency revenue to help subsidize an ATS, however, further study is needed to determine if these fund sources are eligible and adequate. Current strategies to help maintain sustainability of an ATS consider the use of Recreation Enhancement Act funds. The feasibility study will identify additional federal and non-federal funding sources. The possibility of long-term reliance on certain fund sources will be addressed as well as the constraints associated with specific types of funding. Furthermore, the study will identify financing shortfalls that may emerge as operations continue into out-years and possible solutions to tackle these shortages, including public-private partnerships. Funding strategies for all alternatives proposed will include identification of initial and long-term costs so as to give land managers better insight as to which alternative would prove the most effective way of leveraging federal funds.

#### **c) Cost effectiveness:**

For each proposed alternative, a review of fiscal operations will be included with descriptions of all anticipated revenues and expenditures, capital costs, operations and maintenance costs, and administrative oversight costs. Financial feasibility for ATS alternatives will be analyzed on the premise that the Eastern Sierra Transit Authority will own and operate the actual ATS fleet and that costs to ridership should be minimized as much as possible. Alternatives proposed in the feasibility study will be reviewed on the basis of which options would enable the Forest to mitigate current environmental impacts, address visitor mobility needs, and compliment regional transportation efforts most effectively for the least expense.

Any future funding acquired by the INF for the purpose of purchasing or leasing fleet vehicles in support of an ATS alternative will be transferred directly to the Transit Authority by virtue of its Joint Powers Authority and interagency agreement with the Federal Transit Administration. Although one alternative may prove more expensive in the short term, comparisons of its long-term (5 + years) financial viability to other alternatives based on ridership growth, additional revenue sources, and in-place infrastructure will be made. Initial capital investments may be overshadowed by long-term reductions in, or sustainability of, operating costs.

#### **d) Partnerships and funding from other sources:**

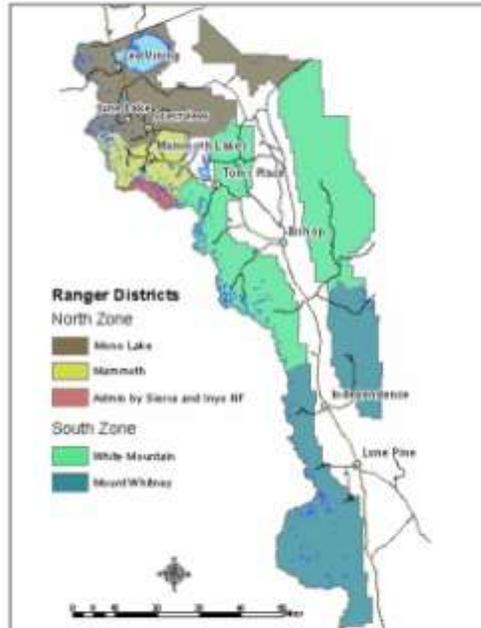
Emphasis will be placed on fostering the INF's partnership with the Eastern Sierra Transit Authority and its stakeholders. ESTA is already engaged in planning efforts throughout the region and welcomes the opportunity to collaborate on future transit projects with the INF. As the feasibility study defines financial sustainability for an ATS alternative, the INF and ESTA will cooperatively develop a schedule of financial commitments for which each entity will be responsible. By determining anticipated contributions to an ATS from each partner, the study will facilitate long-term transportation planning objectives. Additional stakeholders who have demonstrated interest in the implementation of an ATS include CalTrans, Bureau of Land Management, Inyo County, and the Lone Pine Chamber of Commerce. Several of these partners are eligible for funding sources that the INF, as a federal agency, is not. Moreover, the INF expects a transit feasibility study to identify additional funding sources from public-private partnerships.

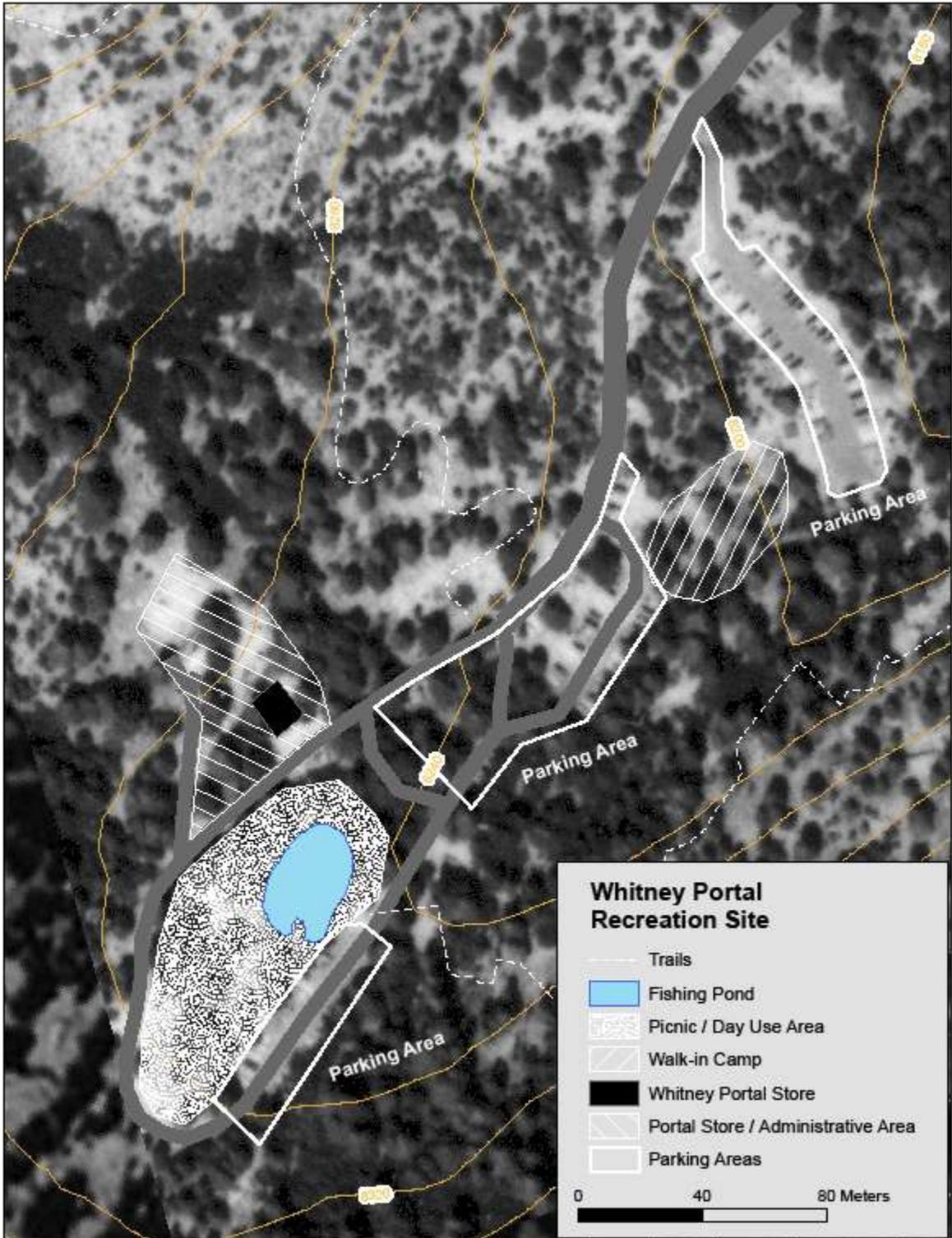


**Area map showing the location of the Inyo National Forest in relation to the states of California and Nevada.**



**Map of the Inyo National Forest. Mt. Whitney sits just 11.4 miles west of the town of Lone Pine.**







## Eastern Sierra Transit Authority

709 Airport Road  
P.O. Box 1357  
Bishop, CA 93516

toll: 800.822.1930  
phone: 760.872.1901  
fax: 760.872.0939

February 27, 2008

Office of Program Manager - ATPPL  
Federal Transit Administration  
1200 New Jersey Ave. SE  
E44-417  
Washington, DC 20550

To Whom It May Concern:

The Eastern Sierra Transit Authority (ESTA) would like to express our support for the Inyo National Forest proposal to further study the many recreational sites in the Inyo National Forest, with hopes of implementing these projects in the near future. One of the sites is of particular interest to ESTA would be the Whitney Portal.

This project is in alignment with ESTA's Vision Statement, which is to provide excellent public transportation services in an entrepreneurial style within the Eastern Sierra Region. The Authority, through its leadership provides responsive and reliable services and is a regional platform for service planning and funding decisions. In addition this project conforms with Inyo County's vision for 20/20, which is to maintain Inyo County's natural environment and rural quality of life, support and expand tourism, improve health care, social services and education, and promote economic development.

ESTA currently operates local, inter and intra regional bus routes throughout Inyo and Mono Counties. The CREST Route provides transportation between Reno, NV and Ridgecrest, CA, with a main stop in Lone Pine. Additionally there are three daily round trip services between Lone Pine and Bishop, and local Dial-A-Ride service in Lone Pine. Adding shuttle service from Lone Pine to the Whitney Portal would be an enhancement to the services that are already being provided in the area for residents and tourists. Implementation of a Shuttle to Whitney Portal would benefit the gateway community of Lone Pine, increase overnight stays and thereby increase revenues for this rural community. It would serve local underserved residents by providing access to the recreation areas in their own backyard that would otherwise be inaccessible.

In summary, ESTA extends our support to the Inyo National Forest to study and implement shuttle service to the Whitney Portal and the other many recreational sites in the Eastern Sierra. This project is in alignment with ESTA's and Inyo County's vision statements will be good for our community by promoting and expanding tourism and enhance local transportation services. ESTA is interested in being an integral part of transit in the Inyo National Forest.

Sincerely,



Jill Batchelder  
Transit Analyst  
Eastern Sierra Transit



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Bishop Field Office  
351 Poco Lane, Suite 100  
Bishop, CA 93514  
Phone: 760 872-5000 Fax: 760 872-5050  
www.ca.blm.gov/bisao



February 28, 2008

1741  
8372PN

Office of Program Management  
Federal Transit Administration  
1200 New Jersey Ave. SE  
E#4-417  
Washington DC 20550

To Whom It May Concern:

The Bureau of Land Management, Bishop Field Office would like to convey our support for the grant application of the Inyo National Forest for ATPPL Funds.

BLM manages the land to the east of Whitney Portal, known as the Alabama Hills Special Recreation Management Area. This past summer, our office participated on a field trip and discussions of alternative transportation for the portal. A shuttle system would also benefit users of the Alabama Hills, as it could be one of the stops between Lone Pine and Whitney Portal.

Our Office has been working with the community of Lone Pine on a stewardship strategy for the Alabama Hills this past year. Development of a shuttle service would help to implement some of the goals the community has established in their Vision Statement for the area.

In closing, we support these efforts, and would be happy to provide any further information requested.

Sincerely,

Bill Dunkelberger  
Field Manager

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CARING FOR THE LAST VESTIGE OF WILD CALIFORNIA  
CONSERVATION, EDUCATION, PARTNERSHIPS



## LONE PINE CHAMBER OF COMMERCE

120 South Main Street ~ P.O. Box 749 ~ Lone Pine, CA 93545  
(760) 876-4444 ~ Fax (760) 264-9675

Feb. 26, 2008

Office of Program Management  
Federal Transit Administration  
1200 New Jersey Ave. SE  
E44-417  
Washington DC 20590

Re: Inyo National Forest application for ATPPL Grant funds.

To Whom It May Concern:

The Lone Pine Chamber of Commerce supports the grant application of Inyo National Forest for ATPPL funds. These funds will be used to address transportation issues in the Whitney Portal recreation area in the Inyo National Forest.

The Whitney Portal has become a major destination for tourist, hikers, photographers, and climbers. The idea of parking in Lone Pine with a shuttle service to the Portal seems an answer to several major considerations, such as environment impact, traffic, etc. However, without a technical study, we can not know for sure just what all the problems are or what needs to be accomplished to correct these problems. This grant will secure funds to hire a transportation engineer to analyze Whitney Portal and make recommendations as to what would best serve the area's needs.

The Lone Pine Chamber of Commerce supports this proposal and we thank you for your consideration.

Sincerely,

Kathleen New  
President/CEO