

**Paul S. Sarbanes Transit in Parks Program (Transit in the Parks Program)
 Project Proposal for Fiscal Year 2010 Funds – Implementation Project
 U.S. Department of Transportation - Federal Transit Administration**

BASIC PROJECT INFORMATION

Project Name (Please provide a 1-2 sentence description of the project): Mt. Bachelor Shuttle bus replacement, service expansion, and shelter facilities..

Proposed Funding Recipient: City of Bend/Bend Area Transit

Public land unit(s) involved:
Deschutes National Forest

Location of Project
City: Bend
County: Deschutes
State: Oregon
Congressional District: 2

Federal Land Management Agency managing the above unit(s):

- Bureau of Land Management
- Bureau of Reclamation
- Fish and Wildlife Service
- Forest Service
- National Park Service
- Other (e.g. Federal Trust)

Describe:

Type of Implementation Project:

(Planning projects, please use the alternate form)

- Bus
- Vehicle replacement
- Tram/Trolley
- Boat/Ferry/Dock
- Rail
- Non-motorized (e.g., bicycling/pedestrian trail)
- Other (e.g., Intermodal facility, ITS) Describe: Shelters and vehicle amenities used to carry recreations gear, such as trailers, racks, cargo hold.

- Proposal is for a new alternative transportation system where none currently exists.
- Proposal is for an expansion or enhancement of an existing alternative transportation system.
- 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 2010
\$998,700

Total Project Capital Cost at Completion (All sources)
\$1,208,700

Were you awarded Transit in Parks Program funds for this project in the past? Yes No
If answer "Yes," please provide amount awarded: \$

Do you plan to request additional Transit in Parks Program funds in future years? Yes 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 \$	FY 2011 \$	FY 2012 \$
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FY 2010 Funding Amounts from sources other than Transit in Parks Program funds? Yes No
If answer "Yes," please specify funding levels per source below:

State \$	Local \$	Federal (other than Transit in Parks Program) \$	Private sources \$210,000
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CONTACT PERSON

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OTHER PROJECT SPONSORS (in addition to funding recipient)

Bend Area Transit
Mt. Bachelor Ski Resort
USFS – Deschutes National Forest
City of Bend
Bend Metropolitan Planning Organization
Commute Options
Tumalo Langlauf Club

REQUIREMENTS

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

BASIC PROJECT DATA

Number of Visitors (Annual): 500,000

Daily Number of Visitors (Peak season): 10,000

Average Number of Vehicles per Day at Peak Visitation: Approximately 4500

Current Road Level of Service at Peak Visitation 32,000 (vehicles/day)

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

Spring Summer Fall Winter

Current Carrying Capacity of Existing Roads: 35,000 (vehicles/day)

Current parking shortages during peak visitation: 3975

Current Average Number of Persons who use the alternative transportation system (if one already exists) at Peak Visitation: 1000
(average number of visitors/daily at peak)

Current Annual Number of Persons who use the alternative transportation system (if one already exists): 60,000 - 65,000 (anticipated number of riders or users/annually)

Estimated Annual Number of Persons who will use the alternative transportation system at project completion: 75,000 (anticipated ridership/usage)

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

Yes No

If "Yes," please provide anticipated reduction: 1-2 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: The replacement busses will result in an 83% drop in particulate matter ejected into the air.

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

Yes No

If "Yes," please explain: The availability of newer, cleaner busses will increase ridership and reduce traffic congestion..

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

Yes No

If yes, please explain: Decreased traffic will benefit all Deschute National Forest experiences.

Executive Summary

The Deschutes National Forest (DNF) has identified their Recreational Niche as "FUN in the SUN!", due to our 300+ days of sunshine a year and almost 2 million acres of forest land. DNF is the hub of incredible recreational opportunities in diverse settings within close proximity to one another and the surrounding communities, facilitating four season day-use recreation opportunities. Over 75% of the visitors to the DNF are classified as day-use which lends itself to various transportation alternatives. These opportunities include Mount Bachelor Ski Area, snow parks, snowshoeing and cross country skiing trails, hiking and mountain biking trails. These trails (not including Mt. Bachelor Ski Area) include over 100 miles of trails with direct access to the Bend to Mt. Bachelor Corridor. In the summer, there are over 2500 lakes for recreation and fishing and extensive trails inaccessible during the winter. Due to very limited winter transportation from the Mt. Bachelor Shuttle service and no summer options, visitors primarily use personal vehicles to access recreational opportunities on the forest. The DNF and Central Oregon are considered a premier, destination location, with pressures of increased visitation and the promotion of tourism to support the local economy, there is concern that continuing to build for increased capacity (e.g. road and parking infrastructure) will attract more vehicles without reducing congestion in the long term.

Currently, a planning effort is underway (*Deschutes National Forest Alternative Transportation Feasibility Study*) that will analyze six access corridors, including the corridor from Bend to Mt. Bachelor. The continuation and expansion of the Mt. Bachelor shuttle will align with recommendations anticipated from the feasibility study. This grant opportunity will ensure the continuation and expansion of the Mt. Bachelor Shuttle, which has a fleet of busses each over or nearing the one million mile mark. What does this mean? It means that they have incredibly talented and committed mechanics on staff and that they cannot sustain or expand the current level of service with their aging fleet. A successful shuttle service that has been running for many years navigates a 42 mile round trip route taking 1000 daily passengers during peak season results in thousands of vehicles eliminated in the Deschutes National Forest during the winter months. Average parking at Mt. Bachelor is 1100 cars per day with a capacity for 3975 cars. In some years parking demands have exceeded parking lot capacity 10-12 days forcing cars to park in hazardous areas. The shuttle service had 13 busses operating 5 years ago, they now operate 9 buses. As the fleet ages, insufficient funds are

available to replace them. Mt. Bachelor committed last year to a one every two year replacement plan, but with an expected vehicle life span of 7 years, and fleet of 9 buses there will only be a deteriorating condition of the fleet that will threaten regular service.

Winter snowparks also experience increased day-use traffic with visitors flocking to the day use areas for varied activities such as, cross country, snow shoeing, sledding, telemarking, and alpine touring. With this grant, Mt. Bachelor has proposed to offer stops at two heavily used snow parks during the winter season. Swampy Lakes and Virginia Meissner are located mid point on the Bend and Mt. Bachelor Corridor. The stops will provide a much needed alternative to personal vehicle traffic that is not currently offered.

Central Oregon communities are strongly tied to the DNF and personally identify with the recreational uses and natural resources concerns recognized on the DNF. Automobiles can negatively impact the forest ecosystem through reduced water quality, harm to vegetation and wildlife, access to historical resources, air pollution, and noise pollution. Portions of the watershed are located near the Bend to Mt. Bachelor Corridor which provides drinking water to municipality of Bend. Native vegetation can be trampled while invasive weeds can be dispersed through seeds tracked on vehicle tires. Direct mortality from collisions with motor vehicles is a major concern for wildlife vitality as we have a large habitat for deer surrounding the corridor. As forest visitation grows, the potential for exposure of these sensitive areas also increases. A main source for greenhouse gases contributing towards global climate change can be attributed to vehicle emissions. Alternative transportation, such as the Mt. Bachelor Shuttle can reduce negative impacts to the ecosystem.

Project Description

The goal of this application is to acquire the necessary equipment and facilities to implement the action items that come from the Transit in the Parks planning grant awarded to the *Deschutes National Forest Alternative Transportation Feasibility Study*. The funded activities include the purchase of six vehicles that would significantly reduce emissions and overall fuel use from the current fleet for existing services, the construction of two energy efficient bus stops, and purchase of two trailers for recreational activities, hitches, and other miscellaneous pieces of equipment to encourage use of the Deschutes National Forest in activities popular to users of our vast forest lands. It is also important to note that upgrading to all accessible vehicles will dramatically increase capacity for passengers requiring accessible transportation into the forest.

Activity 1: Purchase six accessible buses, with diesel engines and 2010 emission standards that utilize ultra-low sulfur diesel. The buses have a 48 seat capacity and 2 wheelchair tie-down stations. Each bus will have the largest possible under carriage storage available for recreation gear to access extensive winter snow sporting options and over 300 miles of mountain bike trails, wheelchair lifts, communication equipment, and auto-chains that will help keep busses on schedule in our winter climate while getting visitors into the forest safely. These amenities will encourage fewer personal vehicles in the forest, improve air quality and reduce hazards, while enhancing visitor experiences.

Activity 2: Purchase two 5x10 pre-manufactured energy efficient and eco-friendly passenger shelters, bike racks, information holders, and i-stop solar bus stop systems. This equipment will be installed on a concrete pad near the entrance to Virginia Meissner and Swampy Lakes

Snow Parks, meccas for snowshoe, Nordic skiing, hiking, and mountain biking enthusiasts. The i-stop solar bus stop system is designed to reduce rider pass-bys and safety. When activated, the light signals the driver that a rider is waiting. The stop will also provide security downlighting and illumination of the mounted bus schedule information. The shelters will protect passengers from the weather and provide benches.

Activity 3: Purchase two sets of trailer hitches, and wood floored flat-bed trailers roughly 22 feet in length with bike racks installed for safe transport. The open rack set up will allow quick load and unload by passengers at the variety of forest access locations (Meissner, Swampy Lakes, and Mt. Bachelor). A variety of other equipment options may be purchased to allow for safe storage of recreation equipment such as ski tubes for side mounting on vehicles, snowshoe bins, and front mounted bike racks.

Activity 4: A coordination effort with stakeholders of the Deschutes National Forest to find ways to utilize the busses during the summer months. Special event shuttle services can reduce traffic and parking problems, improve safety and security, reduce stress, and provide alternative travel modes.^{Footnote1}

Transit in Parks Program Implementation Evaluation Criteria

1. Demonstration of Need

a. Visitor mobility and experience:

To alleviate some of the challenges faced by the DNF to sustain high quality outdoor recreation experiences to meet public requirements while maintaining the ecological integrity of our national forests, the Mt. Bachelor Shuttle has the potential to support the USDA Forest Service Strategic Plan FY 2007-2012 Goal 4, “sustain and enhance outdoor recreation opportunities”. Deschutes National Forest is the third highest visited national forest in the Northwest region of the United States. The combination of the increasing Central Oregon population and tourism and continued decline of public access to privately owned forest land create extensive pressure on the DNF to provide more recreational opportunities.

Mt. Bachelor ski area is privately owned and operated under the terms and provisions of a Special Use Permit (SUP) issued by the DNF. Currently, there is limited winter alternative transportation (e.g. private ski buses that provide transportation under an employee/visitor bus system) and no summer public transportation system to access DNF recreation sites. As a result of limited transportation options and a growing Central Oregon population, visitors must utilize private vehicles to access the forest. Unfortunately, this has limited recreation activities of the forest to individuals with access to automobiles. Nationally and locally the Forest Service is committed to engaging urban America⁴ to expand opportunities to underserved communities (limited English speaking, senior citizens, individuals with disabilities, low-income groups, and youth). For the past three years, the USFS has emphasized connecting youth to nature, through the “More Kids in the Woods” Challenge Cost Share Program. Transportation alternatives can break barriers by providing affordable access to physical, recreational, and interpretive opportunities for educational institutions, youth programs, as well as other social and environmental service organizations.

Within a winter period of five months, a majority of the Deschutes National Forest visitors use the State Highway 46 which includes Mt. Bachelor ski area. The combination of hazardous winter conditions, range of winter driving skills, lack of real-time traffic information, heavy traffic congestion, and pedestrians crossing highways can result in numerous vehicular crashes.

Parking at Mt. Bachelor can reach full capacity when skiing conditions are favorable on weekends and holidays. When parking is at capacity, hundreds of visitors are forced to turn around, wait for a free spot, or continually drive through parking lots. This can cause traffic delays and negatively impact the visitors' experience.

Peak summer visitation is especially high during weekends and holidays when a large percentage of our visitors access the forest for a multitude of opportunities. When existing parking is at capacity at trailheads, visitors will park along roadsides (shoulder), trampling vegetation and compacting soil. These actions can negatively impact the forest ecosystem and visitor experience. In addition, safe access for other transportation modes – bicyclists riding on shoulders of highways and pedestrians crossing highways - are a concern along these corridors.

Designated a National Scenic Byway, Cascade Lakes Scenic Byway (State Highway 46) has been recognized by the US Department of Transportation for cultural, historical, natural, recreational, and scenic qualities. Due to the distinctive characteristics of this corridor, many visitors experience the Deschutes National Forest by driving along this corridor. The development of an alternative transportation system available in the summer months would assist agencies and partners to protect the qualities that make this corridor unique while providing an option for visitors to enjoy the scenery in an environmentally friendly way.

According to the Bend MPO Metropolitan Transportation Plan, the population of the Bend area is expected to increase by nearly 60% over the next 20-25 years⁵. The increase in population will have a significant impact on the transportation system. The plan also points out that the transportation needs of the population will be changing as well since an aging population will be more reliant on alternative modes of transportation. The central Oregon region is an attractive location for retirees. Between 1990 and 2000, this age group more than doubled in Deschutes County and in Bend the 65 and over group comprises 12% of the population⁶. In addition to population trends, growth in tourism has had a significant impact on both the statewide and local economies. Due to its central location to many recreational activities, central Oregon is a major tourist destination. Deschutes County ranks fifth in the state for total travel expenditures⁵.

With a growing population and the pressures of increased visitation, there is concern that continuing to build for increased capacity (e.g. road and parking infrastructure) will attract more vehicles without reducing congestion in the long term. Alternative transportation can alleviate pressures to build capacity while improving safety, relieving congestion, improving access, and protecting the forest ecosystem. In 1997, based on a comprehensive evaluation of transit feasibility, the City Council of Bend declared that transit was feasible to build-out for the city and recommended developing a strategy as an initial method of providing public transportation for the general public but admitted that, in the last 10 years, this strategy was never pursued⁷.

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

As the population of the surrounding area is forecast to grow up to 60% in the next 25-30 years, the demand for recreation opportunities within the DNF will continue to increase. As the number of personal vehicles that are driven to DNF rises, so will air and noise pollution. Parking outside of designated areas will continue causing further adverse impacts to the natural resources. Opportunity for accidents with other visitors and animals will grow as traffic congestion worsens. The experience gained by years of continually increasing winter shuttle usage has demonstrated that an expanded shuttle system can be successful.

According to Objective 1.5 of the USDA Forest Service Strategic Plan FY 2007-2012, the agency will restore and maintain healthy watersheds and diverse habitats. High vehicle use can threaten DNF watersheds through the potential release of chemicals and sediment into the watershed. The Chief of the USDA Forest Service has identified invasive species as one of the four critical threats to our Nation's ecosystems. According to the 2004 USDA Forest Service National Strategy and Implementation Plan for Invasive Species Management Plan, the first program element is to prevent the introduction and spread of invasive species. Invasive species such as spotted and diffuse knapweeds are abundant along this corridor and are found adjacent to campgrounds throughout the forest. Many of these weeds can be dispersed through seeds tracked on vehicle tires. In addition, visitors can trample native vegetation and these disturbed sites are easily colonized by invasive plants if a seed source is nearby. Reducing the number of vehicles along roads and outside designated parking spots at trailheads, picnic sites and other points of interest would likely reduce the spread of invasive plants and is consistent with the Invasive Plant Treatments Final Supplemental EIS for the Deschutes National Forest.

Air pollution from emissions is especially high during periods of heavy congestion along the corridors (high peak use days in winter and summer). Gases contributing towards global climate change can be attributed to vehicle emissions. Transportation consumes 36 percent of total State-wide energy use, and it constitutes 56 percent of an average household's energy use. As a rural area, Deschutes County is heavily dependent on automobiles and thereby consumes considerable gasoline. Efforts to reduce motorized vehicles is a main goal of the Deschutes County Development Code.³ <http://www.co.deschutes.or.us/dccode/index.htm> Chapter 23.76 Energy The Mt. Bachelor shuttle expanded services would support this goal by reducing vehicle use within DNF and further reductions can be seen with outreach showing the shuttle is connected to Bend Area Transit routes and Cascades East Transit routes for regional transit for options to visit the DNF without driving personal vehicles. USDA Forest Service studies such as Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity are being conducted to analyze the correlation between global climate change and effects to forest fires and ecosystem health⁹.

Loss and fragmentation of habitat, isolation of populations, and direct mortality from collisions with motor vehicles are major concerns for wildlife. Many studies have shown that highways and major roads can reduce viability of populations through decreased movement (barriers), mortality from motor vehicle collisions, increase in human disturbance (displacement and avoidance), and decreased availability of food or other resources. Three (3) percent of 2005-2008 Bend to Mt. Bachelor reported corridor crashes involved large animals as reported in Oregon Department of Transportation (ODOT) Crash Analysis Reporting division.¹² State Highway Crash Reports www.oregon.gov/odot

With expected forest use, more vehicles will increase the potential for collisions with wildlife like mule deer, elk, and small mammals, resulting in greater loss of effective habitat, and decreased connectivity for a variety of species, many of which are sensitive or listed.

2. Visitor Mobility and Experience Benefits

a. Reduced traffic congestion:

Average Winter Visits to Mt. Bachelor: 500,000 people.

Peak Daily Visits: 10,000 people.

Average Daily Visits: 2,800 people.

Parking Capacity: 3,975 cars.

Peak parking: 10-12 days per season. Exceeded 1-2 times per year with resulting overflow to access roads.

Shortfall of parking on busiest days: 300-500 cars (1000-1500 guests)

Average parking: 1100 cars/day

Peak day MTB bus passengers : 1000.

Annual Return Trips (passengers) on our Bus System – 35,000 (trips 60,000-65,000). (70% Employee / 30% Paid Passenger)

This plan would replace the oldest of the Mt. Bachelor fleet having more than 1 million miles and put 6 new busses into service, expanding capacity, and dramatically increasing fuel efficiency and reducing maintenance costs. Another great benefit of newer busses; the appeal of new busses encourages first time riders and gives visitors a reason for excitement to use the Mt. Bachelor shuttle. Increased use of newer, sleek buses is noted for many transit and shuttle services that upgrade fleets.

This project would provide an alternative to driving a personal vehicle to the ski resort. Based on 25% average visitation of 1100 persons/day, 325 persons would be taking the shuttle to the resort instead of riding in personal vehicles. This would be a savings of 577 gallons of fuel per day (assuming 20mpg) during the shuttle operation period. The time delay in finding a parking place for the shuttle riders would eliminate approximately 15 minutes per person and immeasurable frustration from driving in adverse weather.

b. Enhanced visitor mobility, accessibility, and safety:

Currently, the busses are run on a schedule based on the impact the trip will have on the aging fleet. Flexibility is limited in schedules for peak trips. New buses will enable service that can meet the challenges of making the elevation gain of 3000 feet each trip up the corridor from Bend to Mt. Bachelor. In addition to flexibility, a newer fleet would be environmentally friendly, cleaner burning and have a positive response from the many users of the system. Expanding the system to operate during full year would also give the summer recreation population an alternative to personal vehicles. The project will provide an alternative mode of transportation for Bend area visitors and residents wishing to ski and snowboard at the resort but not having access to a vehicle or desiring not to drive. Users will have access to a shuttle from Bend to the Mt. Bachelor ski resort and will not have to worry about parking availability on the mountain and/or hazardous road conditions. The buses will be equipped with a ramp allowing persons with disabilities to use the shuttle which will unload passengers at the entrance to the Mt. Bachelor resort. Persons without access to a car and wishing to visit the ski resort will be able

to take a Bend Area Transit bus to the Mt. Bachelor Park and ride lot. During the period of 2005 – 2008, 115 vehicle crashes were reported in the Bend to Mt. Bachelor Corridor.

This project would benefit the 500,000 visitors that come to Mt. Bachelor each season. If 25% of the visitors used the expanded Mt. Bachelor shuttle, an estimated (assuming 3 persons per vehicle) 33,000 vehicles would be reduced in the corridor. This drastic reduction would alleviate the traffic congestion, parking shortfalls and potential for vehicle accidents. Emergency response time would also decrease.

The support of expanding the Bend to Mt. Bachelor shuttle as a viable alternative transportation node, DNF would improve affordable accessibility to all visitors including underserved populations in the area. (e.g. low-income, limited English speaking, individuals with disabilities, senior citizens and youth).

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

Over 97% of Americans participate in outdoor recreation activities with walking and hiking being two of the fastest growing activities. Outdoor recreation is expected to continue to expand in the future, placing more demands on water and land resources. Participation has increased in almost all outdoor recreation activities since 1990 and almost all outdoor activities are forecast to grow in number of people participating with a significant increase in participation from a senior citizen population⁹. The central Oregon region is an attractive location for retirees. Between 1990 and 2000, this age group more than doubled in Deschutes County and in Bend the 65 and over group comprises 12% of the population⁶ In addition, studies show that walking and hiking can have a considerable impact on lowering the risk of heart disease¹⁰. Providing access to the many trails and day use sites on the DNF will increase the health benefits and recreational experiences for this locally growing population.

Education benefits are synonymous with the Mt. Bachelor shuttle service as visitors participating in the shuttle experience can be informed or news from DNF and the region for recreation based activities while enjoying the ride to their destination with collaborative public service or guided opportunities available.

3. Environmental Benefits

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

The biological sensitivity of the area and the topography of the DNF severely limit the expansion of existing parking areas to accommodate the increasing number of users. A shuttle system will reduce the pressure to expand parking and highway capacity. Visitors will be able to enjoy the activities DNF has to offer without the aggravation of having to deal with traffic and parking. It is envisioned that the shuttle system would include recorded or guided interpretation and environmental messaging as part of the shuttle experience. Also, collisions between autos and large animal would be reduced due to the fewer number of vehicles reducing the number of injuries to people and animals.

b. Reduced pollution:

The corridor from Bend to Mt. Bachelor is an important area for many relying on the resources including the 85,000 citizens of the City of Bend relying on the snow pack derived water that comes from the Bend Municipal watershed. Anything we can do to eliminate contaminates within the region ensure the health of our neighboring communities. The current fleet of ski shuttle buses, operated by Mt. Bachelor Ski Resort, is extremely old and operate at only 3 miles per gallon for the annual rate of 70,000 service miles. The diesel engines on the new buses will operate efficiently to minimize environmental impact due to the 2010 diesel engine emission standards. In fact the new fleet will save 14,583 gallons of fuel each winter season and for the 8,750 gallons used to operate the shuttle, there will be a 91% reduction in Nitrous Oxide emissions, and a 83% drop in particulate matter ejected into the air.

The ski shuttle service delivers around 65,000 one-way trips each winter season. If the program is lost due to the lack of functional buses it will mean at least 60,000 additional vehicle trips added to the roadway. The impact of those additional vehicles on the environment are significant; 75,000 gallons of fuel (based on 20 miles per gallon), 1,455,000 pounds of carbon dioxide, and an additional 60,000 pounds of carbon monoxide.

The proposal also establishes the fleet necessary to reduce single occupancy trips into the Deschutes forest year round. Although we do not yet know the schedule or use rate for new alternative transportation options for summer and fall, for each of these trips we do know that it will save 2.5 gallons of fuel, 49 pounds of carbon dioxide, and 2 pounds of carbon monoxide.

4. Operational Efficiency and Financial Sustainability

a. Operational Efficiency:

Mt Bachelor has for many years provided a bus service as a transportation alternative for the 20 mile trip from Bend where a majority of visitors and employees stay or live. Mt Bachelor owns a Park N Ride facility on the west side of Bend (closest to the mountain) and a bus barn at the same location where the busses are stored overnight. The Park N Ride lot is adjacent to a Bend Area Transit stop for urban transit connections. Mt Bachelor owns and operates a vehicle maintenance facility located at the mountain where minor repairs maintenance is performed during the day between shuttle runs.

As the primary winter attraction, it is in the interests of the ski area to operate this service for visitors and employee's requiring or preferring an alternative to personal vehicle transportation to the mountain. There are many reasons for people to choose the bus service including cost savings and avoiding the need to drive on winter roads in winter conditions. Mt Bachelor is motivated to provide this service to ensure that visitors with no other means of transportation have the opportunity to get to the mountain to purchase lift tickets and other services and experience winter recreation within the National Forest. Employees are also offered free bus transportation to the mountain to encourage mass transportation over personal transportation.

This service is well known, and easily marketed through Mt Bachelors website, collateral and public outreach efforts. All employees are aware and the majority of those take advantage of the service. Most customers actively research available services as part of planning their ski/snowboard vacation and are easily made aware of the availability of the service.

Investment focus has been geared toward other capital projects related to ski operations in recent years leaving Mt Bachelor with a significantly aged shuttle fleet. One new bus and an 18 passenger vehicle were purchased in 2008, the first such purchase in 10 years. Consequently the majority of the fleet is comprised of older, less fuel efficient vehicles, requiring extensive ongoing maintenance due to the high miles on many of the busses. Most of the buses have over 500,000 miles and several exceed 1,000,000 miles. Average fuel efficiency of the fleet is in the 3-4 mpg range. Busses currently utilize B5 biodiesel. In the last 2 years, Mt Bachelor has decommissioned 3 busses that were not worth repairing, with a consequent impact on transportation capacity.

Mt Bachelor capital investment plans include a replacement bus every 2-3 years, however with the current state of the fleet it is likely that rate of replacement will be unable to keep pace with the rate at which busses are retiring from the fleet resulting in a net loss to capacity. As a result of this capacity loss and the overall age of the fleet and the impact of that on customer experience, Mt Bachelor has been forced to reduce its efforts in marketing the bus service to paying passengers resulting falling passenger numbers over several years, with the percentage of employee ridership increasing.

Access to capital funding to accelerate fleet replacement and expansion will enable Mt Bachelor to realize a vastly more efficient, less costly, modern and more reliable transportation operation. This will lead to expansion of service and increased ridership through increased availability of and confidence in the system. Any increase in utilization of the service will decrease the number of personal vehicle trips into the forest and possibly overall visitation.

Being literally at the end of the winter road, Mt Bachelor is in a strong position to incorporate other stops along the route to the mountain for alternative winter recreation uses in the forest service, including tubing, snowshoeing and Nordic skiing. This could be incorporated into the operation with minimal financial impact, minimal impact to existing riders, and no incremental impact to the environment from an additional, separate service for this purpose. However there is little financial incentive for Mt Bachelor to utilize its shrinking capacity to provide service to users who are not critical to the operations or revenue base for the resort itself. With a newer, more efficient fleet, and expanded capacity, Mt Bachelor would be motivated to explore opportunities to provide services to other users of the forest, both summer and winter.

b. Feasibility of Proposed Budget: Note – FY 2010 is July 1, 2009-June 30, 2010

	FY 2010	FY 2011	FY 2012	FY 2013
Revenue				
Transit in Parks Program funding (requested)		\$998,700		
Funds from public land budget				
Other federal funds				
State funding				
Local funding: Mt. Bachelor	\$252,000 operating	\$210,000 capital \$205,000 operating	\$204,750 operating	\$180,000 capital \$203,918 operating
Passenger Fares and/or transportation fees	\$88,000	\$100,000	\$110,000	\$133,100
All other dedicated sources of funding				
<i>Total Revenue</i>	\$340,000	\$1,513,700	\$314,750	\$517,018
Capital Costs				
Purchase of rolling stock (6 vehicles)		\$1,110,000		\$180,000
Lease of rolling stock (vehicles)				
Construction (2 bus shelters, equipment, 2 trailers, etc.)		\$58,700		
Rehabilitation				
Other: __Contingency__		\$40,000		
<i>Total Capital Costs</i>		\$1,208,700		\$180,000
Operating Costs				
Salaries	\$125,000	\$130,000	\$135,500	\$141,250
Routine Maintenance	\$105,000	\$75,000	\$77,000	\$79,000
Insurance	\$25,000	\$25,000	\$25,000	\$25,000
Fuel	\$70,000	\$60,000	\$61,800	\$63,654
Contracted services				
Other:_____	\$15,000	\$15,000	\$15,450	\$15,914
<i>Total Operating Costs</i>	\$340,000	\$305,000	\$314,750	\$324,918

Mt Bachelor has a capital investment allocation of \$170,000 for the 2010-2011 fiscal year for the purposes of obtaining one new bus for its fleet and expects to be able to trade in 3 busses for a total of \$40,000 bringing its match contribution to \$210,000.

The 5 year financial plan attached shows that match being leveraged by a Transit in the Parks grant of \$998,700 in the first year to acquire new busses, equipment and trailers for carrying recreational equipment such as ski's, snowboards, snowshoes, and mountain bikes / road bikes in summer. This plan would remove 3 busses with more than 1 million miles and put 6 new busses into service, expanding capacity, and dramatically increasing fuel efficiency and reducing maintenance costs. The remaining years in the financial plan show reduced fuel and maintenance costs from the more efficient fleet. There will be a balance between reduced operating costs from efficiency and increased costs associated with increased service that is difficult to measure at this stage, however Mt Bachelor's goal is to provide service to the full extent of demand, and subsidize the costs of the operation to the extent to which costs exceed passenger revenues. For the most part Mt Bachelor sees this as the cost of providing transportation to its employee's.

The financial estimate includes the introduction of revenues from new summer operations. Demand is difficult to estimate, however 2000 trips (many will be one way cyclists taking the trip for the purpose of riding back down) at an average price of \$5 per trip is a modest estimate to begin with. Consideration is given to the novelty of this service and the extensive summer traffic that currently enters the forest. The projections also include a 10% per annum increase in ridership which is expected as a result improved service in a newer more modern fleet, along with a modest increase in overall business expected. Wages are expected to increase at around 5% annually, and other expenses are expected to increase in line with average inflation at 3%. In addition to the busses the capital investment would be used to construct up to 2 bus stop facilities along the route for other users of the forest service, locations specified elsewhere in this grant.

Mt. Bachelor will then continue its policy established in 2008 to invest capital resources into the transportation (shuttle) program every other year, thereby maintaining the fleet for longterm use and viability. This investment is shown within the budget in FY2013 as another vehicle purchase by Mt. Bachelor.

c. Cost effectiveness:

1. Annual cost for vehicle operations and maintenance (including salaries, fuel, maintenance, administrative expenses related to system, and all other operating costs): \$305,000
 2. Average annual number of riders: 67,000 /year
 3. Transportation fee or fares recovered (average): \$100,000/year
 4. Useful life of transportation assets: 7 years
- Annual cost per passenger trip: [This will be automatically calculated by FTA.](#)
- Annual fare box recovery [This will be automatically calculated by FTA.](#)
%

d. Partnering, funding from other sources:

The primary funding partners will be the Federal Transit Administration and Mt. Bachelor Ski Resort, however many stakeholders will benefit and they will be encouraged to utilize other resources to further maximize the project

Footnotes:

1. Transit Shuttle Projects: A Literature Review and Best Practices 2007, located at:

http://www.hrtpo.org/Documents/Reports/2008/TransitShuttleProj_LitRev_BestPrac.pdf

² 2003 National Visitor Use Monitoring Study, 2008 data will be available in summer of 2009.

³ Deschutes County Committee on Recreation Assets Report, dated June 2008.

⁴ Goal 6. Engage Urban America with Forest Service Programs, USDA Forest Service Strategic Plan 2007-2012

⁵ Chapter 5: Forecast Land Use, Bend Metropolitan Transportation Plan, 2007

⁶ Source: US Census Bureau (data for 1990 and 2000)

⁷ Chapter 8: Public Transportation, Bend Metropolitan Transportation Plan, 2007

⁸ Gaines, W.L., P.H. Singleton, and R.C. Cross. 2003. Assessing the Cumulative Effects of Linear Recreation Routes on Wildlife Habitats on the Okanogan and Wenatchee National Forests and Forman R.T.T. and D. Sperling. 2002. Road Ecology: Science and Solutions. Island Press.

⁹ Westerling, A.L.; Hidalgo, H.G.; Cayan, D.R.; Swetnam, T.W. 2006. Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity. Science, Vol. 313: 940-843.

¹⁰ Source: The National Survey on Recreation and the Environment (NSRE) 2002

¹¹ Source: Journal of the National Medical Association, May 2001

¹² State Highway Crash Reports www.oregon.gov/odot