



# Lewis and Clark Shuttle *Lessons Learned*



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## Introduction

This report documents, from the perspective of the park, the lessons learned from the planning, implementation and ongoing operation of the alternative transportation system at Lewis & Clark National Historical Park. Its audience is those who may be planning transportation systems at other parks.

The report is based on planning documents including the 2002 Environmental Assessment<sup>1</sup>, the 2004<sup>2</sup> and 2005<sup>3</sup> evaluations that were performed by the Volpe Center, and interviews with key participants, including

- Peter Field, Federal Highway Administration, Western Federal Lands. Mr. Field provided much of the on-site day-to-day project management, as well as technical assistance.
- Cindy Howe, General Manager of Sunset Empire Transportation (SETD). SETD is the local transit provider, and provided the buses and bus operators.
- Chip Jenkins, Park Superintendent.
- Patrick Shea, National Park Service Denver Service Center. Mr. Shea provided NPS planning, design and construction project management leadership for the Alternative Transportation System (ATS) including the on-the-ground infrastructure.

It is in four sections:

- Background information on the park
- Lessons learned from planning the system
- Lessons learned on ridership
- Lessons learned from operating the system.

## Background

Lewis & Clark National Historical Park (LEWI), formerly known as Fort Clatsop National Memorial (FOCL), is located in northwest Oregon near the mouth of the Columbia River (Figure 1). It is at this site that the Lewis and Clark expedition built the fort where they spent the winter of 1805-06. In 2005 and 2006, Fort Clatsop celebrated the bicentennial of the Lewis and Clark expedition, with a number of signature events that occurred in November 2005. Fort Clatsop was recently combined with other parks in the area to form Lewis and Clark National Historical Park. Parking near the fort replica is limited, with approximately 55 spaces for cars, buses and recreational vehicles (RVs). Accordingly, an overflow parking area and other amenities were constructed at the River Day Use Area (RDUA), otherwise known as Netul Landing, located approximately 1 mile south of the existing visitor center (Figure 2).

The ATS, as implemented, is a seasonal service (June - early September) that provides a frequent shuttle between Netul Landing and the visitor center, as well as hourly service on routes that connect to Netul Landing (orange and purple lines in Figure 1). It also provides services to other community events on an as-needed basis.

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<sup>1</sup> *Environmental Assessment, River Day Use Area and Park-and-Ride Facility, Lewis and Clark Bicentennial*, report prepared by Fort Clatsop National Memorial, August 2002.

<sup>2</sup> *Fort Clatsop: Evaluation of Summer 2004 Operations*, report prepared by the Volpe Center, September 2004.

<sup>3</sup> *Fort Clatsop: Review of Summer 2005 Operations*, report prepared by the Volpe Center, September 2005.

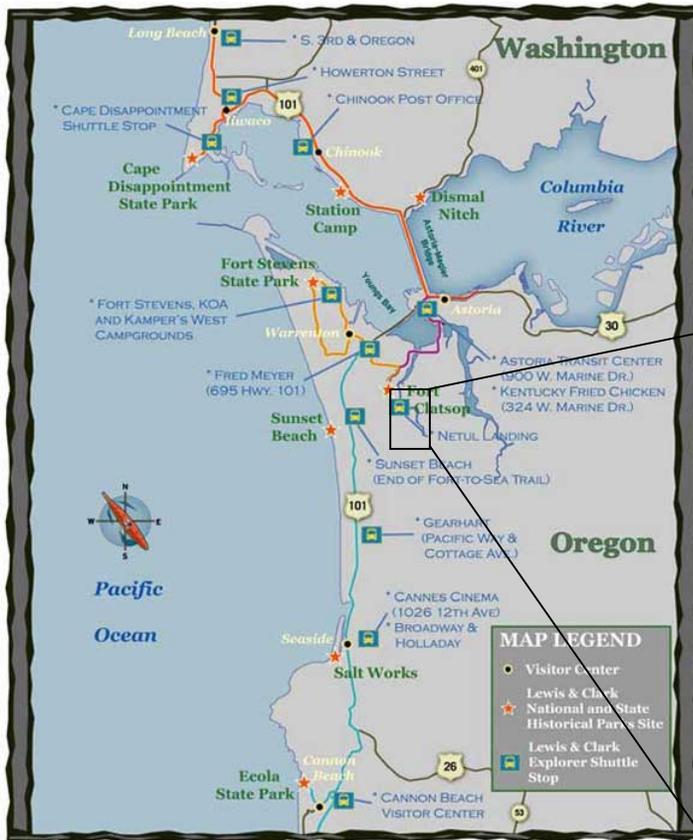


Figure 1. Lewis & Clark National Historical Park

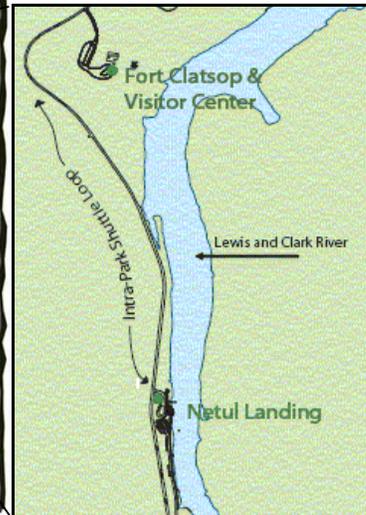


Figure 2. Fort Clatsop and Netul Landing

## History

The idea of providing an ATS at Fort Clatsop was conceived in the late 1990s and service commenced in the summer of 2004. A motivation for the system was the expected increase in visitation for the Lewis & Clark bicentennial, in 2005. During the years that the system was being planned, memories of the 1998 visit of the USS Missouri to Astoria were still fresh. This visit drew large numbers of people to Astoria, and led to massive traffic problems in the Astoria area. This provided motivation to “do better” for the Lewis & Clark bicentennial, both to provide for the bicentennial, and to provide a sustainable transportation solution for beyond the bicentennial.

The original concept was for a centralized parking facility near the airport. In November 2001, a public workshop was held to further refine the concept. As high costs and land development issues were identified, the project evolved from a centralized approach to a less expensive, less environmentally impacting project with regional transit services and a smaller park-and-ride area near the Fort.

According to the 2002 environmental assessment, purposes of the RDU were as follows:

- “Reduce vehicular traffic, noise and local air pollution that currently detract from the desired visitor experience at FOCL
- Provide additional parking and linkage to the regional shuttle system
- Preserve viewsheds along the Lewis and Clark River

- Serve as an interpretive programs staging area
- Provide for visitor day use activities not currently available at FOCL
- Provide for a non-motorized pedestrian connection to link the RDUA to Fort Clatsop
- Expand visitor experience throughout FOCL.”

The EA also identified specific purposes for the Park-and-Ride facility at Netul Landing:

- “Avoid resource damage from overflow parking along FOCL and county roadways
- Ensure that the Fort Clatsop Park-and-Ride facility is operational by the year 2004 for the beginning of the Lewis and Clark Bicentennial
- Reduce vehicular traffic, noise and local air pollution that currently detract from the desired visitor experience at FOCL by locating the Fort Clatsop Park-and-Ride facility outside FOCL boundaries
- Locate the Park-and-Ride facility in close proximity to FOCL to ensure frequent service to and from FOCL
- Improve pedestrian safety at FOCL visitor attractions
- Educate visitors and the local population about the advantages of transit
- Provide convenient, easily located, and safe off-site parking to accommodate FOCL visitors
- Support overall community needs for a regional transit/shuttle transfer facility
- Provide an appropriate transition for FOCL visitors.”

Table 1 shows the timeline for the Fort Clatsop ATS.

**Table 1. Timeline for Fort Clatsop ATS**

When	Event
1998	The USS Missouri visited Astoria. The traffic problems resulting from this visit provided motivation to the project.
2000	Park submitted a \$950,000 Project Management Information System (PMIS) request, which was subsequently modified to \$2.6 million after feedback from the Technical Advisory Group and planning workshop.
2001	The Park Service and Sunset Empire Transportation District (SETD) conducted an area traffic study.
2001-2002	The Park Service funded a planning effort, including a one-week planning workshop in the Fall of 2001. The end products were a planning workshop document identifying a range of development, interpretative and operational concepts that led to an environmental assessment. The initial concept was for a large centralized parking area a few miles away from the park at the airport that would serve both the park and community purposes. However, the concept evolved considerably, to its present form that included: <ul style="list-style-type: none"> <li>- a small parking area at Netul Landing</li> <li>- decentralized regional transit service</li> </ul>
2002	In concert with partners and as NPS’s contribution to the overall effort, the Park Service designed Netul landing and other elements of the system.
2002-2005	SETD acquired buses
2003	SETD built an intermodal transit center in Astoria, that would serve both the park’s needs and other community needs.
2003	The Park Service awarded the construction contract for Netul Landing.
June 2004	Service began- as trial year to work out operational refinements before Signature events in 2005-2006
Summer 2004	The park superintendent requested an evaluation of the service, in support of decisions that needed to be made in fall 2004, to assist in the refinements.
Summer 2005	Second year of service.

The service introduced in the summer of 2004 included features designed to

- Ensure that unregulated peaks in visitation at the fort replica do not detract from the visitor experience.
- Prevent an overflow parking situation near the visitor center and along park roadways.
- Provide alternative transportation between area communities and Fort Clatsop.

More specifically, the features included the following:

- Use of a timed ticket reservation system, to prevent unregulated peaks in visitation at the small fort replica.
- Opening of Netul Landing as the new “gateway” to Fort Clatsop, where visitors would receive an orientation. This included rescripting the visitor’s arrival and the park’s orientation program.
- Seasonal closing of the two parking areas near the visitor center and the fort replica during the summer months (June 14 – September 6), to ensure a better visitor experience with less noise and air pollution near the fort, as well as to prevent an overflow parking situation near the visitor center and along park roadways.
- Use of an intra-park shuttle to transport visitors from Netul Landing to Fort Clatsop
- New transit service routes to transport visitors from neighboring communities to Netul Landing. Two routes connected with downtown Astoria and a third connected with Fort Stevens State Park. One of the downtown Astoria routes and the Fort Stevens route provided hourly service 7 days per week. The other Astoria route (the Column route) provided limited weekend service.<sup>4</sup>

While the two regional routes provided hourly service, the intra-park shuttle had headways of 15 to 20 minutes. Daily park visitation (Fort Clatsop only) during the August peak was approximately 750 in 2004 and 800 in 2005. Daily regional transit use was approximately 85 passenger-round trips to Netul Landing in 2004 and 23 in 2005.

During the summer of 2004, the park superintendent requested an evaluation of inaugural ATS operations to identify what changes might be warranted to fine tune the concept of operations prior to 2005, when peak visitation from the bicentennial was anticipated. The U.S. DOT Volpe Center was asked to perform the review. Based on this review, changes for 2005 included the following:

- Discontinue the ticket reservation system
- Improve parking access at Netul Landing for handicapped visitors
- Make targeted use of the parking areas near the visitor center for tour buses.

However, the focus on visitor service in the form of personal contact to provide orientation at the park’s primary shuttle facility at Netul Landing was maintained.

Further background information is provided in a case study prepared in early 2005 ([http://www.nps.gov/partnerships/shuttle\\_lewis&clark.htm](http://www.nps.gov/partnerships/shuttle_lewis&clark.htm)). The case study noted the following key success factors:

- Transit providers brought established service and experience to the project, and saw an opportunity to expand ridership.

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<sup>4</sup>In 2005, the Column route was discontinued, leaving a total of two routes. The 2005 routes are depicted as the orange and purple lines on Figure 1.

- Discovering the character of the area was key to marketing the shuttle. The marketing campaign captured the character of the place, and elevated the image of public transit as a means of maintaining that character.
- Community involvement and consensus building were important.
- Focusing on a quality visitor experience.

The remainder of this report discusses the lessons learned from the planning and operation of this system. It is organized roughly chronologically, with the first section devoted to the lessons learned from planning the system. The second section is devoted to ridership, an important topic that is influenced both by planning and operations. The final section discusses the lessons learned from two seasons of operations.

## Lessons Learned from Planning the System

Planning the alternative transportation system (ATS) was a multi-year effort, involving substantial resources and the building of partnerships. As both opportunities and fiscal/environmental constraints were discovered, the system evolved so that the final ATS was quite different from the system that was initially envisioned. Key lessons:

- To solve problems inside of the park, think outside the park.
- Think through the trip from the visitor's perspective.
- Take advantage of external events.
- Do not underestimate the resources required or resources other partners may provide; it's not just a construction project.
- Cultivate your partnerships.
- Anticipate change during the planning process.

### *Think outside the park*

A successful system requires the support of stakeholders from outside the park. These stakeholders may include metropolitan planning organizations, local communities, local transit providers, business interests, and county and state government. It is important to be aware that the stakeholders may have somewhat different (although compatible) objectives from those of the park. Also, it is wise to ensure that the system planned for the park fits in with any regional plans, such as the Transportation Improvement Program. In this case, although formal project submission to the State TIP was not initiated, relevant organizations (such as Astoria, Clatsop, ODOT, WSDOT and the States) were involved. By solving both park and community problems at the same time, the outcome is likely to be a good solution with community support.

Local stakeholders should become involved during the early planning stages, and their input should be solicited throughout the planning process. To the extent that local stakeholders see themselves as part of the solution (i.e., they have a vital role to play), they will be more likely to actively support the ATS. Furthermore, by working together on transportation planning and operations, the park and the local stakeholders can foster the relationships that facilitate the pursuit of other joint opportunities, such as the expansion of the park.

### *Think through the trip from the visitor's perspective*

It is important to consider the entire experience from a visitor's point of view, an experience that begins long before the visitor reaches the park boundary. In the words of the park superintendent, "Transportation planning is visitor experience planning." For example, on a regional ATS, a likely user is someone who is arriving in the region via public transportation. Between 2003 and 2005, weekend train service operated between Portland and Astoria. There is limited intercity bus service between Astoria, Warrenton and Portland. Local transit operators (Sunset Empire in Oregon and Pacific Transit in Washington) provide regional service. Does the new ATS connect to existing services? Does it provide a good first impression at that connecting point? Is the service convenient to local hotels and campgrounds? In addition to the needs of the park, the design and operation of the ATS must be considered within the larger context of the community.

### *Take advantage of external events*

Two special events provided a sense of urgency to the Fort Clatsop ATS. First, in 1998, was the weekend visit of the USS Missouri to Astoria. This visit led to massive traffic problems in the Astoria area, and alarmed community members because emergency services could have been

impacted. The experience provided motivation to avoid a similar situation with the Lewis & Clark bicentennial. The second event was the Lewis & Clark bicentennial itself in 2005. The park and the region wanted to be prepared for the expected increase in visitation due to this event. The event provided a deadline for implementing a solution. In addition, six seasonal community events illustrated the area's congestion problems and provided additional motivation for finding a solution.

### *Do not underestimate the resources required*

Even with support from the Denver Service Center<sup>5</sup> (DSC) and the Park Service regional and national offices, setting up a new transportation system requires a substantial, hands-on, high-level effort from the park. It takes time, money and specialized knowledge. Planning can be involved, and the plan probably will change from the initial concept. This effort consumed thousands of person-hours over a number of years.

Someone at the park site needs to be the project manager; furthermore, the project will call for daily high-level attention from the park. This level of attention is needed because the project involves construction, procurement, and substantial coordination both with local stakeholders and with the higher administrative levels in the Park Service. In the case of the LEWI ATS, while the park superintendent is the responsible official, DSC (Patrick Shea) provided overall planning, design and construction support to the park and partners as requested and funded. Meanwhile, on-site project management came from the Federal Highway Western Federal Lands office (Peter Field), effectively acting as the Park's representative. This arrangement was practical because the Federal Highway Administration (FHWA) representative was physically located within easy driving distance of the Park, and could therefore be on-site as needed.

It is helpful that the park's project manager and the superintendent not be the same person. This gives the park's project manager someone to go to in case of concerns or issues.

Although the project involved many areas (facility development, rescripting the visitor experience, fee recovery, transportation planning, and leaving a long-term sustainable legacy), it is important that the project manager have some degree of transportation knowledge. Transportation is a fundamental element of any community, and transportation knowledge helps the park to make realistic goals and to have an intelligent conversation about them with the community.<sup>6</sup>

The design work consumed 10-20 percent of the park's project manager's time, while taking perhaps 10 percent of the time of the following park personnel:

- Superintendent
- Head of maintenance
- Chief of resources
- Chief of visitor services.

Park staff will also need to be involved in the planning process, especially as deployment of the service nears. The ATS needs to be integrated into park operations, similar to opening a new visitor center. The ATS may require staff to assume new roles and responsibilities, and this will require planning on the part of the park staff. These new responsibilities may require a reduction in

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<sup>5</sup> The Denver Service Center (DSC) provides planning, design, and construction project management services for National Park Service units.

<sup>6</sup> An example was the desire by some in the community for a left turn bay into Netul Landing. A person with transportation engineering knowledge could easily show this was not needed.

existing responsibilities. Also, in order that the outcomes are appropriate and acceptable, staff as well as the end users are critical to needs and requirements and need to be part of the solutions. For example, at Fort Clatsop, the opening of Netul Landing as the new “gateway” to the park meant that park staff would have to be trained on how to manage this new location.

The regional and national offices also played important roles. The national office (WASO) assisted by organizing and staffing Technical Advisory Group (TAG) meetings, as well as with funding for planning, development and evaluation. The regional office provided program and project support, including land acquisition, compliance, legal, and management approval of park management recommendations. WASO was responsible for NPS funding, technical and program support and approval. DSC supported park regional and WASO in project management, technical expertise and contracting services for all NPS funded activities. FHWA provided professional, compliance assistance and construction services assistance.

Both the park and the transit provider noted that the lead time for capital improvements (such as vehicle acquisition) is several years. The transit operator asked the Federal Transit Administration (FTA) for capital funding some five years in advance. To summarize, there was a commitment of staff from the park and partner organizations for several years before construction began and service was initiated.

Funding for the project came from several sources. FTA earmarks were helpful for the on-ground infrastructure and buses. The original intent was to fund operations via a transportation fee; but this concept evolved to funding via seasonal adjustments in the park entry fee. This issue is complex, and a full explanation is beyond the scope of the report. However, the balancing of expenses and revenues is critical to the sustainability of a transit system.

### *Cultivate your Partnerships*

Fort Clatsop was a small park, and the regional transit solution reached far into the surrounding community. As a result, partnerships with stakeholders in the community were key to the success of this system. Effective partnerships help to ensure buy-in from the community, bring additional resources to bear on the project, and tap into varying areas of expertise. However, one stakeholder noted that although partnerships were important in this case, not every alternative transportation system may lend itself to a partnership.

Key partners included the Sunset Empire Transportation District (SETD), the local transit provider; the Oregon Department of Transportation (ODOT); the Oregon State Parks; the Lewis & Clark Bicentennial Association; and the Port Authority (Port of Astoria). The Port Authority was important early in the process, when it was thought that a Port facility (the airport) would be used. Pacific County Transit and the cities of Warrenton, Seaside and Astoria also played a role. Relationships with State and Federal elected representatives were helpful for funding, political support and presence in the communities.

Key lessons learned from the partnerships were:

- Develop and utilize the various partners’ areas of expertise and access to resources.
- Given the partners varying interests and constraints, it may be necessary to make compromises.
- Successful partnerships have committed support and clear understandings, not just acquiescence.
- Lead sometimes, support or assist other times, as situations require.

## Areas of expertise

Each partner was able to bring its own expertise to the project. For example, the park took the lead on handling the visitors, and the prestige of being associated with a National Park aided the transit operator's efforts to obtain equipment. The transit operator ran the buses and performed the transit service planning function. Each partner had access to resources, such as the local transit operator's ability to obtain FTA funds to purchase the buses. With the transit operator owning the buses, Park Service financial exposure and risk (what happens if the buses are not used?) was reduced, as service can be adjusted to meet seasonal and community needs.

SETD was able to take advantage of its experience in providing transportation for several large festivals that occur in the area each year. They obtained grant funding to perform some initial studies of service options in 2000. They obtained FTA Section 5309 funding (capital assistance for transit projects) for the intermodal facility in Astoria.

The Lewis & Clark Bicentennial Association (LCBA) provided a channel for citizen participation. Some of these citizens were well connected to the political process. LCBA also acted as a conduit to state and national bicentennial associations, assisted in re-establishing passenger rail service between Portland and Astoria and provided community input and perspective to planning and operational issues.

The Oregon Department of Transportation (ODOT) had control over major highways outside the park. They helped with messaging (Highway Advisory Radio) and way finding through significant help in changing existing and adding new signage on highways leading into the region, throughout the region and on roads close to the park. ODOT also served an important role in convening partner organizations to coordinate all aspects of transportation for special events. Finally ODOT provided the underpass on Route 101 for the Fort to Sea trail.

FHWA provided substantial technical assistance, and because of the proximity of the appropriate FHWA personnel to the park, was able to serve as an on-site project manager for the park. Without this assistance from FHWA the project would have stalled in the conceptual stage; the park simply did not have the technical capacity to manage the project without the FHWA project manager.

## Interests and constraints

Recognize that the partners have their own interests. The park needed to solve an immediate parking problem, but more broadly was interested in creating a sustainable system that would improve the visitor experience while conserving natural resources at Fort Clatsop. The transit agency (SETD) was looking to control costs, modernize facilities (terminals and buses) increase ridership, and improve both image and service within the community.

With these differing interests, it is sometimes necessary to accept compromises. For example, the Park Service usually prefers vehicles that are fueled by something cleaner than diesel. However, the transit agency was not equipped to work with alternative fuel power systems (they did not have an appropriate maintenance facility or skilled mechanics for alternative fuel power). Furthermore, the transit agency wanted vehicles that could be used for other services during the off-season. By stepping back, the park realized that this project was largely intended to relieve a parking problem, and the fuel for the buses was not a critical goal of the project. As a result, the Park Service accepted diesel buses for this service. Meanwhile, the transit agency acquired extra-quiet buses, and started to view their bus operators as customer liaisons, not just as bus drivers.

By making compromises but remaining focused on the core goals of the project, the service was initiated. Over time the park and transit provide have been able to work to incorporate the use of biodiesel (produced in cooperation with the Port of Astoria and students from Astoria High School.)

### **Committed support**

Even though it was noted that everyone in the community needs to be brought in via an open decision-making process, so that some stakeholders can act as champions and others could join in, the park noted that the process could have been more effective by obtaining commitments of support from stakeholders.

When few comments were received on the Environmental Assessment, it was viewed as a good sign. In hindsight, it would have been better to obtain written letters of support from the various stakeholders. Silent acquiescence and verbal support was not enough; written commitments would have increased the likelihood of stakeholders following through on their intentions to provide support. Along these lines, the transit agency noted the Memorandum of Understanding (MOU) established between the Park Service and the transit provider was helpful<sup>7</sup>.

### *Anticipate change during the planning process*

It should be noted that the vision changed considerably during the planning process. Initially, the initial preplanning vision considered developing a remote centralized Park and Ride facility near the airport, an underutilized facility located a few miles north of Fort Clatsop. It turned out that this approach was beyond budget constraints, isolated from partner communities, challenged by wetland issues and not sustainable, so the project vision evolved to that of bringing people in from the communities on regional transit, making use of existing regional parking facilities combined with a small parking area at Netul Landing. This decentralized approach was viewed as more attractive than the airport facility for the following reasons:

- Reduced capital and operational funding requirements.
- An airport facility would have involved a large new paved area to be used only a few months each year.
- SETD had already inventoried available parking in the community, thus planners knew where existing off-site parking was available.
- Decentralized solutions rather than a centralized solution provided a better solution that complemented and engaged communities and visitors more efficiently.

Environmental constraints (the discovery of a salmon rearing habitat) forced a further evolution in the layout of the Netul parking area. In order to preserve the salmon-rearing habitat and to still maintain a sufficient number of parking spaces, the parking area was reconfigured as a narrow, long lot. A bus shelter and orientation area was located at the north end, with parking extending over 1,000 feet to the south. While less than ideal, this design was the best possible solution given the constraints.

Meanwhile, the National Park Service rules on fee collection changed so that an explicit transportation fee could not be charged. This forced some rethinking on the revenue stream for the project, and led to a seasonal adjustment in admission fees.

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<sup>7</sup> SETD board minutes indicate establishment of an MOU in 2004  
([http://www.iinet.com/~ridethebus/commissioners/minutes\\_feb\\_04.html](http://www.iinet.com/~ridethebus/commissioners/minutes_feb_04.html))

After planning was underway, additional communities such as Long Beach, Washington, inquired about transit and wayfinding signage so as to be included in the regional activities.

The park's project manager continually evaluated issues and options against the stated goals of the project. This helped to both guide and allow changes to happen. If the issue raised or change suggested either helped or at least did not detract from the goals of the project, it was easier for all the partners to adopt.

## Lessons Learned on Ridership

Visitors had the choice of either parking their own vehicles at Netul Landing, or taking a regional transit route to Netul Landing. In the summer of 2004, ridership on these regional routes represented approximately 11% of park visitation, high for a voluntary system in a rural area. In 2005, it dropped to approximately 3%. The drop is attributed to both inadequate marketing in 2005 and changed perceptions of parking availability at Netul Landing. Key lessons:

- Marketing is important enough that it needs operational staffing and ongoing support.
- Perceptions of parking availability are important.

### *Marketing is Important*

Marketing a seasonal transit service in a rural area presents two major challenges:

- Most travel in the area is auto-oriented, and one needs to break a long tradition of using the automobile as the sole means of transportation.
- The message has to change depending on the season. For example, during the fall, winter and spring, there is no public transit service to Fort Clatsop, so the message by necessity has to be “here are the driving directions to Fort Clatsop.” During the summer, the message has to change, and this may be difficult without a concerted effort to reach and train staff at the chambers of commerce, visitor centers and hotels.

The 2002 Environmental Assessment noted that, “the dispersed parking system would have a critical reliance on the ticketing and reservation system, and the education of visitors before they get to the region.” (p. 3-16)

A reservation system was introduced in the summer of 2004. Community stakeholders (motels and the like) were trained on the reservation system, the changes in parking arrangements, and on the use of regional transit. During this same period, representatives of the transit operator took the message to community meetings. It appears that the effort worked “well enough” for 2004. Even though many visitors were unaware of the reservation system and the remote parking arrangements, enough visitors were diverted to transit (approximately 11%) so that the limited parking at Netul was not overwhelmed. Unfortunately, this came at a cost of visitor satisfaction. Some of the transit riders had only used transit because they had been told, “there is no parking at Fort Clatsop.” They were unhappy to discover, upon their arrival at Netul Landing, that parking was in fact available. They felt they had been given “misinformation.”

The reservation system itself presented additional challenges. A number of visitors had trouble using it, and complained about the cumbersome process. Furthermore, visitation may have been lower than expected due to the rainy summer, thus there was no obvious need for reservations.

Based on the 2004 experience and the discontinuance of the reservation system, community partners stopped telling people to use transit<sup>8</sup> in 2005. While attractive marketing materials were produced to provide visitors with information regarding the transit service community partners did not effectively “push” these materials and failed to communicate that transit was a good option for traveling to Fort Clatsop. Transit usage on the routes to the park dropped significantly, and the

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<sup>8</sup> During visits to several regional sites in August 2005 (hotels, campgrounds, chambers of commerce) the Volpe researcher found that even though bus schedules were available, when she asked local staff how to get to Fort Clatsop, they all gave her driving directions.

parking area at Netul was sometimes overwhelmed. The lesson was that in order to be used, a new transit system (especially a seasonal service) needs to be aggressively marketed.

Even with effective marketing, however, there will necessarily be resistance to the use of ATS among some visitors, particularly returning visitors. Although visitor reaction to the ATS was generally positive, qualitative interviews with visitors revealed that returning visitors were the most likely to be upset by the introduction of the shuttle service. For a number of returning visitors, the bus was viewed as an inconvenience, particularly since they had been able to drive directly to the fort on previous visits. They were not viewing the bus as a part of the visitor experience, better than a private vehicle.

### *Perceptions of Parking Availability are Important*

There is a strong correlation between parking cost/scarcity and transit use. Areas where parking is expensive and scarce tend to have higher transit usage.<sup>9</sup>

In 2004, one of the messages conveyed to Fort Clatsop visitors was that “there is no parking at the Fort.” This message may have contributed to the high regional transit ridership experienced in 2004. As noted earlier, it may have also contributed to a decline in visitor satisfaction, when visitors saw that parking was available at Netul Landing. In 2005, the message changed:

- Community partners were indicating that there is parking at Netul Landing, thus losing the concept of dispersed parking that was envisioned in the 2002 EA.
- The park website stated that parking at Netul was likely to be full during peak time periods.

The change in message almost certainly contributed to the decline in regional transit use in 2005 versus 2004, as people perceived that parking was available at the park. Interestingly, as the parking area at Netul became overwhelmed during the summer of 2005, transit usage increased slightly in the later part of the summer. It is unclear whether this increase was due to the changing perceptions of parking availability throughout the summer, or to the renewed efforts at marketing once it was seen that parking was becoming a problem at Netul Landing.

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<sup>9</sup> Although the relationship between parking and transit use is most obvious in urban areas, one non-urban area with high parking costs is Provincetown, on Cape Cod in Massachusetts. Parking is scarce in the summer with municipal lot rates in the \$2 / hour range. The parking scarcity may help to explain the success of the Provincetown-Truro shuttle, a seasonal service that drew some 76,000 riders in 2004, mostly during July and August. (<http://capecodtransit.org/prdone.cfm?id=129>)

## Lessons Learned from Operating the System

Service commenced in Summer 2004. Due to the efforts of front line staff (both in communicating with visitors and in solving problems), it was largely successful. The visitor survey portion of the formal evaluation indicated that the shuttle service was well received. The evaluation (both formal and informal) revealed opportunities for improvement that were implemented in 2005. Key lessons:

- Consider the visitor's point-of-view.
- Provide effective front-line communications with visitors.
- Expect some complaints.
- Plan for change.
- Perform a planned, objective evaluation.

### *Consider the Visitor's Point-of-View*

The park visitor who uses transit may have different attitudes and desires than the "typical" transit user. The "typical" transit user

- Uses transit every day, often on the same route, and is thus familiar with the system.
- Is interested in reliable, fast service, and may not be particularly interested in the scenery enroute.

The park visitor, on the other hand

- Might view the transit trip as part of the park experience (especially if the park is in a scenic area or service is interpretative), and may not care as much about travel time.
- Is not familiar with the system, and so needs guidance and reassurance as to where and when to board and deboard.
- Might not feel comfortable waiting at a transit stop in an unfamiliar area, especially if the stop itself is unattractive, or is in an unattractive area.

What might motivate a park visitor to use transit? Possibilities include

- Lack of access to a car (significant for someone arriving in the area via public transit)
- Discomfort with driving to an unfamiliar location.
- Desire to minimize driving and parking of a large vehicle (may be significant for RV users).
- Perception that parking might not be available at the park.
- The service is viewed as part of the visitor experience to the park.

In some ways, consideration of the visitor's point-of-view worked well. Since the park admission ticket served as a transit pass, the service was effectively free. The buses had park-like livery, and drivers provided information. There were interpretive audiotapes on the Netul shuttle to enhance the overall visitor experience.

There were, however, some missed opportunities. The bus stops in the gateway communities could have been made more attractive to visitors via better locations and signage. For example, the transfer point in Warrenton (at the Fred Meyer grocery store) was in an unattractive, out-of-the-way place and the signage was poor. Likewise, at another bus stop (outside the Kentucky Fried Chicken), there was neither a bus shelter for riders nor signage indicating that this bus stop was for visitors traveling to Fort Clatsop. In addition, little parking was available at the terminal in Astoria, and the on-street parking was limited to only 2 hours (which is an insufficient amount of time for

visiting the fort). The information message and supporting system facilities that reinforced the message were inconsistent. If the park visitor is being asked to change the pattern of arrival and access to and through the park, the entire experience and sufficient message reinforcements need to be planned, developed and maintained.

To summarize, the shuttle system from Netul landing to the visitor center was clearly seen by the park, the transit provider and the visitor as part of the park experience. As such was easier for all involved to work to make the whole experience park-like.

On the other hand, the shuttle system from the gateway community was viewed more as an extension of the transit provider's normal transit service. As such the availability of information, the look of the infrastructure, and the actual transit stops were not welcoming to the average park visitor.

### *Provide Effective Front Line Communications with Visitors*

The success of operations at Netul landing was largely due to the role that park staff played in welcoming visitors, managing parking and managing the shuttle system. During peak periods, four staff people were assigned to Netul Landing: three to welcome visitors and provide the orientation, and one to manage incoming automobile traffic. Visitors were often confused upon arrival at Netul, with many asking, "is this the fort?" These visitors did not realize that they would have to take a shuttle to visit the fort, and in 2004, few visitors realized that they needed a reservation. A key function of the park staff was to welcome visitors and answer any questions regarding the visit process and the shuttle system.

The bus drivers also played an important role in explaining the visit process. For example, one bus driver reported that by explaining that there would be a visitor orientation at Netul Landing, she received fewer complaints when riders (whom she had just picked up at Netul south) were asked to de-board at Netul north.<sup>10</sup> Likewise, when that bus driver transported visitors from Fort Clatsop to Netul, she explained that she would be making two stops at Netul – first at Netul south and then at Netul north; visitors should deboard at whichever stop was more convenient to where they had parked. Conveying this information to visitors was reassuring to them. Overall, stakeholders commended the bus drivers for being courteous and friendly.

In addition to effective communication with visitors, there must also be effective communication between bus drivers and between the park staff and the bus drivers. The smooth ATS operation at Fort Clatsop was due, in part, to the effective partnership that existed between park staff and transit drivers. Examples of effective communication include:

- When a large number of passengers board at Netul south, the bus driver radios the park staff at Netul north to inform them that a large group is arriving. This prepares the park staff, and if there is already a large group waiting to board the shuttle, then the bus driver can inform the new passengers that they will have to wait for the next shuttle.
- The shuttle driver leaving the fort to return to Netul asks if there are any visitors on board who will be riding the transit bus back to the community. If yes, the shuttle bus driver radios the transit bus driver and asks him or her to wait for the connecting passenger(s).

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<sup>10</sup> These riders could not understand why they had to deboard; they wanted to go straight to the fort.

## *Expect Some Complaints*

Even with a well-run system, park staff should expect an increase in visitor complaints due to an ATS. With any significant change in operations, there will always be some initial resistance, especially from repeat visitors whose routine is being changed. At Fort Clatsop, park staff members were not accustomed to receiving any complaints, so the number of complaints during the first year of the shuttle service came as a surprise, seemed large and was upsetting to some of the staff. Parks introducing ATS will need to prepare their staff to expect disgruntled visitors, and will want to consider the right mix of staff for managing visitors.

## *Plan for Change*

The system was designed for flexibility. The park superintendent and project manager consistently worked to set the expectation that change was not only likely but was to be expected and encouraged. They worked to convey that the first day of operations would be different from the first week, which would be different from the first month and from the first year. Accordingly, during the first week, 2 people were dedicated to troubleshooting. They also found that by having a cooperative agreement and good working relationship with the transit operator, park staff and bus drivers could work together to ensure a more seamless handoff for visitors. Examples of small but important improvements include the following:

- Signs were added or improved at various stops.
- A “poker chip” system was instituted so that waiting passengers would be assured a space on a particular bus.”
- At the beginning, bus engines were left running while the passengers received their park orientation. This was changed to having engines switched off during the orientation (to reduce noise), but turning them on as a signal from the bus driver to the park ranger that it was time for the bus to leave.

Examples of experiences in 2004 that led to changes in 2005 included the following:

- The reservation system had low usage, did not work well, and triggered many complaints. With its low usage, it did not enhance the visitor experience by regulating peaks in visitation.
- The design of the Netul parking lot (long and narrow) made for excessive walking distances for people parking at the south end of the lot, particularly for those with physical handicaps.
- Tour bus operations at Netul did not work well. Tour bus visitors were upset at having to deboard their tour bus and board the shuttle bus in order to visit the fort. In addition, the

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” The park implemented this system as a means for tracking the visitors boarding each bus. Each shuttle bus departing from Netul Landing is assigned a particular color – blue, orange, green, or yellow. For example, the bus departing at 11: 25 is orange, the 11:40 bus is green and the 11:55 bus is yellow. As visitors approach the shelter at Netul north, the “welcome” staff person gives them the color chip for the next bus. Once 40 chips have been distributed (the capacity of the bus), the park staff begins handing out the color chip assigned to the bus after that. As the visitors board the bus, they hand in their chips. As one park staff person related, the visitors like having something they can hold onto, something tangible that assures them they have a seat on a specific bus. During the on-site evaluation, it was observed that the chips also served as an ice-breaker, a source of jokes between park staff and the visitors.

arrival of two or more tour buses at the same time overwhelmed shuttle bus capacity, resulting in some visitors having to wait 15- 20 minutes before they could take the shuttle to the fort.

Based on its experiences in 2004, as well as the feedback provided in the Volpe evaluation, the park made changes to operations. To insure the continued refinement of the service, this type of flexibility and willingness to adapt is essential. The 2005 changes included:

- Discontinuing the reservation system
- Adding a second bus stop at the south end of the Netul parking area, to shorten the walking distances
- Instituting a “poker chip” system (mentioned earlier) to regulate visitors boarding the buses at Netul
- Allowing tour buses arriving at off peak times to go directly to the visitor center.

Further changes are planned for 2006, based on the 2005 evaluation.

### *Perform a Planned, Objective Evaluation*

Remember that on any new system there WILL be an evaluation that is either formal and structured or informal and unplanned. People will observe the system, and then will form opinions based on their limited personal information and pre-conceived notions. Recommendations and decisions will be based on the evaluation that park staff and managers participate in. By making this a formal process not only will better recommendations be created but also better ownership will be created.

Both internal (performed by park staff) and external (performed by an outside party) evaluations are important. An internal evaluation provides a sense of ownership to the Park. However, according to the park superintendent, the value of an external evaluation early on “cannot be overstated.” Having objective outsiders with transportation experience and knowledge is critical, and the external evaluation provided objective data to keep the evaluation based on facts.

In the summer of 2004, the park superintendent requested an external evaluation in order to guide decisions about the 2005 service that needed to be made in the fall of 2004. This evaluation was aimed at answering the following questions:

- Should the ticket reservation system be retained?
- How should parking areas at Netul/visitor center be operated?
- Are adjustments to intra-park shuttle necessary?
- Are adjustments needed to other transportation services, such as transit?
- Has visitor experience been affected by new systems?

For the evaluation the Volpe Center used a wide variety of data sources. These included:

- Qualitative interviews with park staff, visitors, community partners and transit drivers.
- Observations from an on-site visit.
- Visitor head counts (park staff recorded the number of adults and children who boarded the shuttle).
- Transit ridership information (collected by Sunset Empire).
- Tour bus information (i.e., number of visitors accessing the park via tour buses).
- Traffic counts for 2005 and prior years.

- Information from the visitor sign-in book.
- Bookstore sales (as a proxy for visitation).

Both quantitative and qualitative data are important. The park received an increased number of complaints in 2004, complaints that tended to put the entire ATS in a negative light, but this was countered by a visitor survey that revealed a generally positive response to the shuttle. Visitor surveys can be an effective tool both for evaluating a service once it is up and running, but also in the early design phases of a service, where it is useful to gather data on the needs and characteristics of visitors.

In the future, the park will continue to collect data on number of visitors, transit ridership, and traffic counts in order to continue to assess the effectiveness of its service.

## Summary

To summarize, key lessons from the planning and implementation of this system were as follows:

- The vision for the visitor experience and supporting ATS needs to go beyond park boundaries, both in terms of reaching out to the participating communities and in terms of the enhancing the visitor experience. Transportation must support the park experience.
- The partnerships with communities can have benefits beyond the immediate transportation system. An effective transportation partnership can foster the relationships that facilitate the pursuit of other joint opportunities.
- External events may provide needed motivation for implementing the system.
- To change visitor and community travel patterns, substantial on-site resources and capacity will be required to plan the system. This is especially true in a new system that relies on partnerships. Capital needs may not be intensive, but developing the vision for the system and maintaining the partnerships requires considerable effort.
- For the LEWI system, the external partnerships, particularly with the transit operator, were critical to successful startup and operations.
- For ridership, both marketing and perceptions of parking availability are important.
- In planning and operating the system, consider the visitor's point-of-view and needs. Ensure that front line communications are effective.
- Expect some complaints.
- Expect that changes will occur, both in planning and operating the system. When implementing changes, carefully consider the impacts of these changes to both communities and visitors.
- An objective evaluation is necessary, both to defend the new system against the complaints that will inevitably arise, and to identify opportunities for improvement. Without it, there is little defense against opinions formed from limited personal information and pre-conceived notions.





As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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